Building Evidence of Effectiveness
Overview/Learning Objectives

Understand how evidence informs theory of change and program design
Be familiar with various types of evidence
Understand how to assess evidence
Building Evidence of Effectiveness

Theory of Change Elements

- **Community Problem**
  - Statistics documenting the need

- **Specific Intervention**
  - Evidence
    - Guides choice of intervention
    - Supports cause-effect relationship

- **Intended Outcome**
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Everyday Life Example of a Theory of Change

Problem/Need
Strep Throat

Intervention
Antibiotics

Outcome
Healthy

Evidence
✓ Penicillin
✓ Amoxicillin
✗ Tetracycline
EVIDENCE: Information or facts that are systematically obtained in a manner that is replicable, observable, credible and verifiable for use in making judgments or decisions. Evidence enables us to determine whether or not a program is achieving its intended outcomes.

New Programs:

- What existing interventions have demonstrated success in solving the problem?
- Where have existing interventions fallen short?
- What is the recommended design (specific program activities) and dosage (frequency, intensity, and duration) to achieve an intended outcome?
Program design is based on or adapted from a similar program that has evidence from an evaluation.
Existing Programs:

- Is there sufficient evidence for the intervention to continue its use?
- Based on the evidence, are there modifications to the intervention that would make it more effective?
- Do you need to choose a new intervention?
Program designs where evaluation has established a causal linkage between program activities and intended outcomes.
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**Evidence Informed**

- Gather evidence supporting the intervention
  - Design/Adopt a strong program
- Develop a Logic Model
- Create Implementation Materials
- Pilot implementation

**Ensure effective implementation**

- Document program process(es)
- Ensure fidelity in implementation
- Evaluate program’s quality and efficiency
- Establish continuous process improvement protocols
  [Performance Measures - Outputs]

**Assess program’s outcomes**

- Develop indicators for measuring outcomes
- Conduct pre-/post-intervention evaluation to measure outcomes
- Conduct process evaluation
  [Performance Measures - Outcomes]

**Obtain evidence of positive program outcomes**

- Examine linkage between program activities and outcomes
- Perform multiple pre- and post-evaluations (time series design)
- Conduct independent (unbiased) outcome evaluation(s)
- Conduct meta-analysis of various studies

**Evidence Based**

- Establish causal linkage between program activities and intended outcomes/impact (e.g. Conduct quasi-experimental evaluation using a comparison group, evaluation with random assignment (RCT), regression analysis, or other appropriate study design)
- Conduct Multiple independent evaluations using strong study designs
- Measure cost effectiveness compared to other interventions addressing same need

**Identify a strong program design**

- Attain strong evidence of positive program outcomes

**Assess program’s outcomes**

- Establish causal linkage between program activities and intended outcomes/impact (e.g. Conduct quasi-experimental evaluation using a comparison group, evaluation with random assignment (RCT), regression analysis, or other appropriate study design)
- Conduct Multiple independent evaluations using strong study designs
- Measure cost effectiveness compared to other interventions addressing same need
Possible sources of evidence include:

- Evaluations that document the outcomes of similar programs
- Performance measurement outcome data
- Results from an evaluation of your program outcomes
Have similar programs been successful in achieving the outcomes you want your program to produce?
Building Evidence of effectiveness

Evidence Source: Your Performance Measurement Data

Past performance measurement outcome data:

• What do your past performance measurement results tell you?
• Can you show positive outcomes over time?
Results from an evaluation of your program outcomes:

- What type of evaluation is it?
- Does it document change in knowledge, attitude, behavior or condition of beneficiaries?
- Does it show that your intervention is what caused the change?
Assessing Evidence

Considerations:

• **Similar**: Cites comparable intervention with similar beneficiaries and results
• **Significant**: Findings show that the program had a positive and statistically significant effect on beneficiaries
• **Up-to-date**: Recently published or most recent available
• **High Quality**: Use well-implemented and appropriate research methodologies given the research questions of interest
• **Reputable**: Source with no stake in outcome and published in a peer reviewed journal or by credible organization
# Building Evidence of Effectiveness

## Evidence Continuum

### Causation

<table>
<thead>
<tr>
<th>Low</th>
<th>Moderate</th>
<th>Strong</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary</td>
<td>Impact evaluations</td>
<td>Impact evaluations</td>
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<tr>
<td>Outcome results from performance measurement or outcome evaluations</td>
<td>Show causality, compares intervention recipients to non-recipients</td>
<td>Show causality, compares intervention recipients to non-recipients</td>
</tr>
<tr>
<td>Doesn’t show causality</td>
<td>Comparison groups: Quasi-experimental Design</td>
<td>Comparison groups: Quasi-experimental Design</td>
</tr>
<tr>
<td>No comparison group</td>
<td>Randomly-assigned control groups: Experimental Design</td>
<td>Randomly-assigned control groups: Experimental Design</td>
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### Shape Up: afterschool obesity prevention program

<table>
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<th>Preliminary</th>
<th>Moderate</th>
<th>Strong</th>
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<tr>
<td>Performance measurement shows that 75% of girls age 14-16 participating in the Shape Up program increased knowledge of healthy food choices.</td>
<td>A 2005 impact evaluation by internal evaluators (using a quasi-experimental design) found that after 12 weeks, the girls in the program made 50% more healthy food choices than the comparison group.</td>
<td>A 2010 impact evaluation of the program by University of MN using experimental design/ random assignment found after 12 weeks, the girls in the experimental group made 50% more healthy food choices than control group girls</td>
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Outcomes evaluation showed that 65% of girls in the program made more healthy food choices.
Key Points

• Evidence helps us understand whether or not a program is achieving its intended outcomes

• A program’s theory of change should be informed by evidence about what interventions are, and are not, likely to be successful in achieving the intended outcomes

• The strength of a program’s evidence exists on a continuum, and different types of evidence are appropriate at different stages of a program’s life cycle

• Factors to consider when assessing evidence quality include: similarity, significance or strength of findings, recency, quality and whether the evidence is from a reputable source
Additional Resources

CNCS Performance Measurement Core Curriculum: https://www.nationalserviceresources.gov/npm/training-resources

AmeriCorps State and National Evaluation Resources: https://www.nationalserviceresources.gov/evaluation-americorps