Introduction to Program Evaluation

January 29, 2018
Introductions

• Name
• Organization
• 3 sentence description of the type of program/activity you are interested in evaluating
Smith Child Health Research, Outreach & Advocacy (SCHROA) Evaluation Core

Goal: improve evaluation reach & quality to inform programs and initiatives in pediatric health

Offers:

• pre-proposal consultation on evaluation design & budget
• post-funding evaluation planning, consulting, staffing and implementation
• TA and training opportunities
Alliance for Research in Chicagoland Communities (ARCC)

**Mission:** Catalyze & support meaningful community & academic engagement across research spectrum to improve health & health equity

Based in Center for Community Health. Serving and Institute of Public Health & Medicine

**Resources:**
- Partnership brokering/development
- Consultation, proposal review/support
- Education (workshops, team training, online)
- Funding assistance

**Websites:** [www.ARCConline.net](http://www.ARCConline.net)  [http://www.feinberg.northwestern.edu/sites/cch/](http://www.feinberg.northwestern.edu/sites/cch/)
Today’s goals

• Introduce basics of evaluation planning & design

• Use exercises and discussion to practice

• Network with program evaluation experts
Research vs. Evaluation

Research
- Seek to generate new knowledge
- Researcher-focused
- Hypotheses
- Make research recommendations
- Publish results

Evaluation
- Information for decision making
- Stakeholder-focused
- Key Questions
- Recommendations based on key questions
- Report to stakeholders

John LaVelle http://aea365.org/blog/?p=222
Program evaluation

- Program: the intervention: what you are doing to make a difference
Program evaluation

• **Systematic** collection of information about a program to generate **credible** information used to make decisions about the program

System: A set of **detailed** methods, procedures and routines created to carry out a specific **activity**, perform a **duty**, or solve a **problem**
Systematic data collection

- Same questions are asked each time
- People or situations you are collecting data from are selected using consistent criteria
- Data are collected on a schedule
Generating credible information

• Getting to credible answers

Have you accounted for/minimized possible bias in:

• The selection of people/places, etc. from which you have collected data
• The time points at which you are collecting data
• The data you are collecting
Generating credible information

Have you considered other possible contributors to outcomes?

• What did you do to account for these?
Questions?
What goes into program evaluation?

- Stakeholder involvement
- Planning
- Implementation
- Data analysis
- Dissemination & application of findings
Stakeholder Involvement
Stakeholder involvement

• Stakeholder: a person, group, organization, or system who affects or can be affected by an organization's actions
  – Program users
  – Staff
  – Funders
  – Policy makers
  – Board members
  – Community members
  – Who else????
Why involve stakeholders?

- Improve the quality of the evaluation
- Gain cooperation for evaluation
Why involve stakeholders?

- Build commitment/lessen resistance to using evaluation findings.

- Gain support/understanding for what the organization is trying to accomplish.

- Create an invested audience for findings dissemination.
Tips for involving stakeholders

- Involve stakeholders early – planning stage
- Involve stakeholders continuously communicate regularly
- Involve stakeholders actively decision making roles?

Establish a structure for stakeholder involvement, e.g. committee, working group, etc.

Source: Reinke
Activity 1: Involving stakeholders

Think about your program

• Who are potential stakeholders to involve in the evaluation?

• Discuss the pros and cons of involving these stakeholders in the evaluation project
Questions?
Evaluation Planning
Evaluation planning: creating an overall vision for the evaluation

• Key program and evaluation planning tool: Logic Model
  – Articulate/organize logic behind program
  – Establish expected metrics
  – Identify gaps in thinking
  – Provide a visual guide
  – Involve stakeholders
  – Map relationships among elements
Logic modeling/evaluation planning

• Project specific
• Ranges from simple to complex
• Built collaboratively with stakeholders
• Articulate assumptions behind program – how it will work...
Basic logic model

Planned work

Inputs → Activities → Outputs → Outcomes → Impact

Intended/expected results

Narrative

Source: Logic Model Development Guide. Kellogg Foundation
Logic model elements: Impact

• Progress toward program goals
  – #/\% people w/decrease in BMI
  – #/\% people got jobs, etc…
Logic model elements: Outcomes

• Results
  – Range from immediate to very long term
  – Measurable
    • Participant satisfaction
    • #/\% people w/ improved knowledge, attitude, behavior...
Logic model elements: Outputs
• Direct product of/completed program activities
  – #/\% people attending class
  – #/\% items distributed
  – #/\% persons receiving service...
Logic model elements: Activities

• Program activities (the things your program does)
  – # & content of classes
  – # & content of events
  – # & content of counseling sessions
  – # and type of referrals....
Logic model elements: Inputs

- Resources put into program
  - staff time
  - materials
  - volunteers...
Logic model elements: Narrative

• Description of your logic model
  – Ensures everyone will interpret the same and come away with the same understanding.

  – Summary ~2 pages
## Simple logic model

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Impact</th>
</tr>
</thead>
</table>
| · Space/Location  
  - Staff  
  - Professionals for networking  
  - Money  
  - Equipment  
  - LCD/Screen  
  - Tables/Chairs  
  - Materials  
  - Handouts  
  - Evaluations  
  - Lunch | · Workshop  
  · Networking | · # of workshops  
  · # of attendees  
  · # of networkers attended | · 100% of participant report satisfaction with training  
  · 75% of participants report increased evaluation knowledge  
  · 50% of participants report feeling prepared to implement learning  
  · 50% of participants apply learning in their programs over the next year | · ↑ quality of participant programs through use of evaluation  
  · ↑ grant funding for participant organizations due to improved proposals |
Questions?
Activity 2: Logic model building: give it a try…

• Working in groups of two or three, use the Logic Model handout in your packet to start drafting a logic model for the Sample program 2 in your handouts. We will ask each group to present their model for discussion in about 15 minutes.
Evaluation Types
Evaluation types

- 4 main options: Not mutually exclusive

1. Process
2. Context
3. Outcomes
4. Impact
Evaluation types: Process (aka fidelity)

- How is the program being implemented?
  - How are participants recruited/enrolled?
  - How are program services delivered?
  - Are program services delivered according to plan?
Process evaluation examples

• A violence prevention program is interested in understanding how their peer-to-peer recruitment method is working in terms of:
  • Number of participants enrolled
  • % of participants completing the program

• A home health care worker program for families with children with disabilities is interested in learning if the home visit session is being delivered with fidelity to the program guide.
Evaluation types: Context

What is going on in the environment that may influence program development, implementation and outcomes?

• Focus can be narrow or broad
Context evaluation examples

• A program providing training on trauma informed care for social workers working with immigrants may focus on what is going on within the program with staff turnover or it could focus more on what is going on nationally regarding immigration enforcement and how that impacts opportunities for care delivery. Changes at both these levels could influence expected outcomes.

• A tobacco cessation program is interested in understanding if passage of Tobacco 21 legislation has influenced calls to the Quit line.
Evaluation types: Outcome

What has been achieved as a result of your program?

- Participant changes related to program activities
- Environmental changes resulting from program activities
- Systems changes related to program activities
Outcomes evaluation examples

- Have participants in a healthy cooking class increased their healthy eating food preparation knowledge and skills?

- Have systems changes in how a school organizes lunchroom processes resulted in decreased waiting time and increased time for recess?

- Have repairs to school water fountains resulted in increased student water intake?

- Have advocacy efforts to implement restorative justice for school suspensions resulted in new policies and fewer out of school detentions?
Evaluation types: Impact

What is the program’s contribution toward reaching long range goals?

- Likely to involve factors outside a single program

- Rarely done without an outcomes evaluation
Impact evaluation examples

• A brief intervention program for alcohol abuse in teens is delivered. Does participation in the program reduce the risk of developing a severe alcohol abuse problem in adulthood?

• A healthy cooking class is offered to parents. Do children of participants reduce their BMI’s over time?

• A community center offers a free yoga class for stress reduction. Do participants reduce their stress-related illnesses over 10 year period?
Activity 3

• Think about a program evaluation you are interested in conducting.

• Decide on a primary evaluation type and explain why you chose that type.

• What are some of the pros and cons of choosing that type of evaluation?
Check in – lots of decisions need to be made

- Who are your stakeholders?
- How can you best collaborate on the evaluation?
- What type(s) of evaluation make sense?
- What are some beginning thoughts on evaluation questions?
Questions?
Evaluation Questions
Evaluation questions

Questions that specifically state what the information collected through the evaluation will attempt to answer.
Example evaluation questions

Who? What? When?

- Do people who are homeless obtain stable housing after completing our program?

- Do our program participants increase their capacity for managing their diabetes over the course of their enrollment in our program?
Example evaluation questions

• Do children who participate in an asthma education program do better at recognizing and managing asthma symptoms by the time they complete our program than children who do not participate in the program?

• Do children who go to a wellness focused summer camp improve their healthy eating knowledge over the course of the camp?
Evaluation questions

• Drive the **evaluation type(s)** you will pursue leading to evaluation design decisions:
  – What, how, and when data are collected
  – Data analysis methods used

• Set up how & how often you will communicate findings
Developing evaluation questions

• Collaborate with stakeholders
  – Staff
  – Board members
  – Program participants
  – Evaluator
Developing evaluation questions

- **F**easible - can you collect the information needed to answer the questions credibly?
- **I**nteresting - are they about something that stakeholders want to know?
- **T**ime-bound - do they state clearly the time periods involved?
- **P**ractical - are they tied to the scope and content of your program?
Activity 4: Developing evaluation questions

• Think about a program you would like to evaluate....

• Come up with three evaluation questions for it
Discussion: Developing evaluation questions

How do you think having collaborators in this process would be helpful?

Are the questions…?

• Feasible
• Interesting
• Time-bound
• Practical
Questions?
Evaluation Design
Evaluation design

“Blueprint” for evaluation

- Gets at the “credible” part of “providing credible answers”
- Sets up almost all remaining decisions
  - Timing of data collection
  - Respondents/participants
  - Methods for data collection
  - Analysis processes
Evaluation design challenge

• How do you know if the change you see is due to the things you did?

• A group of children in your nutrition education class report eating more fruits and vegetables.
  – Do they really?
  – Is it because of changes to the school lunch program?
  – Is it because a grocery store opened in the neighborhood?

• Design choices can help you determine the “causal relationships” between your work and the change you see.
Evaluation design

- Goal to limit confounders
  - Confounder – things other than your program that could cause or contribute to changes observed.

- Common confounders
  - Environmental changes
  - Changes in characteristics of participants
  - Changes in data you are collecting
  - Increased awareness of a problem, condition
Activity 5: Identifying confounders

• Think about a program evaluation you are interested in conducting.

• What are possible “confounders” you need to consider in determining the evaluation design?
Evaluation design

• Many, many design types – we present 4
  – Experimental
  – Quasi-experimental
  – Time series
  – Pre to post
Experimental design

- Two or more groups; **randomly assigned**
- Pre- and post-intervention measures

Why use it? Controls for most of the “other” factors that could create the change you see.
- History, maturation, testing/observation, instrumentation, regression, selection, attrition

“Gold Standard” – easiest to publish, get federal funding for, hardest to refute results
Experimental design example

• Promoting the selection of low-fat milk in elementary school cafeterias in an inner-city Latino Community
  – Schools were randomized to intervention and control group
  – Data Collected
    • Milk consumption (number of student trays with no milk, one milk, and more than one milk carton; discarded milk measured by volume)
    • At baseline, immediately post intervention, at 3-4 month follow up

• What confounders did this design allow them to address?

• What are some issues with implementing this design?
Quasi-experimental design

- Two or more groups; not randomly assigned
  - Groups must be comparable on as many relevant factors as possible
- Pre- and post-intervention measures

- Why use it? Controls for some of the confounders that could create the change you see.
- Used when you cannot randomly assign participants to receive a program.
Quasi-experimental design

- Next best thing to the “Gold Standard”
- Possible if:
  - intervention has not already occurred
  - intervention can’t be selectively given to some and not others
  - if there could be “spillover effects”
Quasi-experimental design example

- Effect of a manager training program on sanitary conditions in restaurants
  - Managers were placed in intervention groups based on scores on a restaurant inspection
  - Data Collected
    - Mean inspection scores
    - At baseline, one year after training program, 2 years after training program

- What does this design allow for conclusion-wise?
Experimental & quasi-experimental designs: pros/cons

Pros

• removing factors external to the program that may effect outcomes clarifies evaluation findings

Cons

• adds cost
• finding/enrolling control subjects
• cannot control for all possible factors
• often difficult to randomize services –means withholding…
Experimental & quasi-experimental design: pros/cons

Key: if not randomizing - choosing the right factors to match comparison and intervention groups on

Think about what factors you think are important to outcomes:

Example: If you are evaluating a chronic disease self care program

These factors may be important

health literacy
insurance status
length of time living with disease
disease severity
Activity 6: Quasi-experimental design

• See sample program for evaluation exercises 3 handout.

  – What factors might be important to “match” on or control for?
  – How could you do that?
  – What data might you need to collect before you could even identify match groups?
Time series design

• Two or more groups; may or may not be randomly assigned
• Multiple pre- and post-intervention measures

• Why use it? May control for some of the “other” factors that could create the change you see

• Establishes trends before and after intervention
• Most useful in interventions involving policy change
Time series design example

- The impact of parental consent on the HIV testing of minors
  - All minors accessing HIV counseling and testing sites were included
- Data Collected
  - Numbers and characteristics of those accessing sites; outcome of visit (tested or not tested)
  - 12 months before and 12 months after policy change (requiring parental consent)

- How does this design help control confounders?
- What confounders could it help control for?
Pre-test/Post-test

Measure program participants before they participate in the program and then again using same measures at a set time after the program has concluded.

- Pre-test = before the program begins
- Post-test = after the program completion
- Change is assumed to be (at least in part) due to program participation.
- When you only have one group (no match or controls not getting the program)
Pre-test/Post-test example

- Effect of new health education curriculum on student knowledge, attitude and behaviors.
  - Pre-test with students at the beginning of the school year
  - Post-test with students at the end of the school year
- Compare mean test score from pre-post

- What possible confounders are addressed?
- Which possible confounders are not addressed?
Pre-test/post-test: pros/cons

Pros

- Easy access to subjects – all enrolled in your program

- Can produce information about timing of change – lends strength to causal argument, rules out selection threat (to some extent)
Pre-test/post-test pros/cons

Cons

– Time between pre and post can’t be too short or too long (otherwise run into a variety of issues)

– Doesn’t control for issues that may make your program participants different/unusual from others (e.g. are they more highly motivated, educated, etc. than similar populations…)

– May lose a significant number of participants at pre or post measurements points (e.g. enroll late, absenteeism, drop outs)

Key: getting all participants to participate at both time points; understanding the other things that could have caused the change
Questions?
Summary

• Plan collaboratively

• Understand your program in its entirety

• Understand your assumptions about change

• Use planning tools: logic modeling
  – Think carefully about your questions given your resources and program scope:
    – Feasible
    – Interesting
    – Time-bound
    – Practical
Summary

• Consider the realities of your participants and program
  – Do you have control over who gets it and who doesn’t?
  – Will people be coming back multiple times?
  – Do you know when exactly the intervention started and stopped?
  – Will everyone get the same exposure?

Think about what you really want to know to choose the type of evaluation you will undertake

• Understand the pros and cons of evaluation design choices in producing “credible” results
Resources

- CLOCC Evaluation Guidebook
  - Introduction to Program Evaluation
  - The Evaluation Planning Process
  - Developing Evaluation Questions
  - Evaluation Design Basics
  - Data Collection
  - Data Analysis Basics for Program Evaluation
  - Disseminating Program Evaluation Findings

Contact us! [http://www.clocc.net/](http://www.clocc.net/)
• 5-4-3-2-1 Go! Surveys
  – Surveys for programs teaching the message components.
  – 1st-3rd, 4th-6th, and 7-8th grade versions.
  – Data analysis sheets with formulas.
Alliance for Research in Chicagoland Communities Resources

Monthly Resources & Opportunities Listings

Online Resource Directory: www.ARCCresources.net

www.ARCConline.net

ARCC@northwestern.edu
Evaluation, Data Integration, and Technical Assistance (EDIT) Program

Fostering a learning community to improve the health and wellbeing of sexual and gender minority populations in Chicago and beyond.

Director: Dr. Gregory Phillips II
Associate Director: Dr. George J Greene
edit@northwestern.edu
http://isgmh.northwestern.edu/about/edit/
Northwestern University Evaluation and Research Alliance

**Vision**

NU-ERA is a group of evaluators building a community to efficiently facilitate information and resources sharing across Northwestern and to increase visibility in Chicago.

**Formation**

Kickoff event was held on 6/28/17 while hosting American Evaluation Association President Kathy Newcomer

**Learn More**

Email edit@northwestern.edu to join the listserv and learn about future events!

Current Collaborators

- Chicagoland Evaluation Association
- Northwestern University Feinberg School of Medicine
- Institute for Public Health and Medicine
Next Workshop

Intro to Logic Models for Community Organization Program Evaluation:

February 5, 2-4 pm

Co-sponsored by Alliance for Research in Chicagoland Communities (ARCC) & Lurie Children’s Hospital Smith Child Health Research Program Evaluation Core

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