

Evaluating your Program – Does it work?

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Outline

- Overview of Evaluation
- 6 Steps to Evaluation
- SMART objectives
- Logic Models
- Triangulation

Why evaluate?

Evaluation helps you to:
See whether program objectives were met
Document the strengths and weaknesses of the program
Have data for keeping good financial records
Improve staff member skills in planning, conducting, and evaluating activities
Meet grant or contract requirements
Promote public relations and awareness
Find out the extent to which a program or its components are appropriate for other populations or settings
Add to the knowledge base of health education program design
Identify hypotheses about behavior for future evaluation.

From Windsor et al., 1994

What is Evaluation?

A systematic gathering of information about the intervention's operation, as well as its effects.



Research vs. Evaluation

- Both use the same tools
- Both use same methods
- Sometimes the questions are the same

- So what is the difference?

Research vs. Evaluation

- The purpose of research is to produce generalized knowledge based on inference from a sample to a population
- The purpose of evaluation is to assess the effectiveness of the program.

What can evaluation tell us...

- Does it work?
- Does it do what we want it to?
- How well does it work?
- Does it work for the reasons we think it does?
- How much does it cost per benefit gained?
- Does it have side effects?

Evaluation can...

- Focus a project at the beginning
- Keep the project on track
- Make mid-course corrections
- Control costs by focusing resources
- Answer/discover critical questions
- Document success/avoid failure
- Bridge perceptions with data analysis
- Lead to more funding!

Evaluation Design

Internal & External Validity

- Internal validity – how well can we attribute behavioral change to the program (intervention)?
- External validity – how generalizable are the results to the real world?
- Research – High internal validity
- Evaluation – High external validity

Threats to Internal Validity

- ✓ History
- ✓ Maturation
- ✓ Measurement
- ✓ Regression to the Mean
- ✓ Selection Effects



Just the facts

- Think of yourself as a detective/lawyer trying to collect enough evidence to prove who committed a crime.
- Who do you need to convince your program works.
- What type of evidence is the jury going to believe.
- The level of evaluation is often based on scarce resources (i.e. funding, time)

Attribution of Effect

1. Comparing outcomes with what would have happened with no intervention.
2. Comparing outcomes to another intervention.

What can you compare your results too?

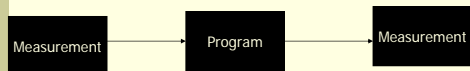
Types of Outcome Evaluation Designs

- Post-Test only
- One group pretest-posttest design
- Non equivalent control group design
- Non equivalent comparison group design
- Randomized pretest-posttest control (comparison) group design

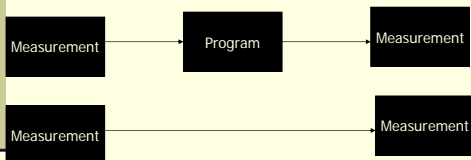
Post-Test Only



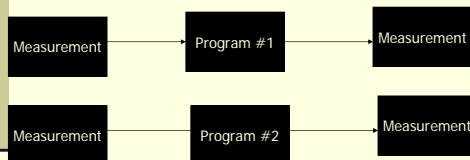
One Group Pre-Post Design



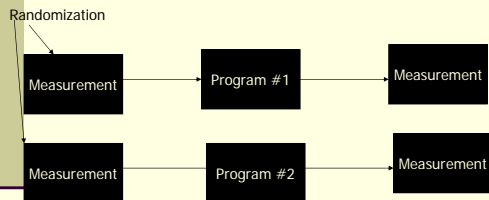
Non-equivalent Control Group Design



Non-equivalent Comparison Group Design



Non-equivalent Comparison Group Design



Evaluation Life Cycle

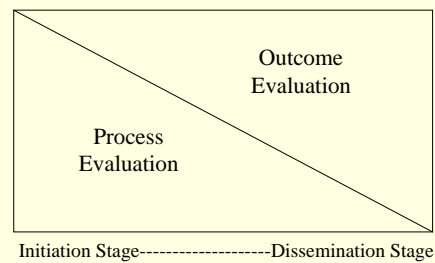


Two Types of Evaluation

Process Evaluation – Ongoing assessment and documentation of the planning, development, and implementation phases of an intervention.

Outcome Evaluation – did the intervention make a difference in the lives of the clients or the community?

Stages of Program Development



Conducting an Evaluation: Process Evaluation

- Is program reaching target audience?
 - Do they know about it?
 - Are they participating?
 - Are there barriers to participation?
- Roadblocks
 - Unforeseen problems
 - Changes made to program

Conducting an Evaluation: Process Evaluation, con't

- Changes to original design
 - How they affect goals
 - How they will affect outcomes
- Tools
 - Program records
 - Staff interviews and logs

CDC 6 Step Model

1. Engage stakeholders
2. Plan the program
3. Focus the evaluation
4. Gather credible evidence
5. Justify conclusions
6. Ensure use and share lessons learned

1. Engage Stakeholders

- Who?
 - Program operations, people served by the program, evaluation users
- Why?
 - Facilitates input and power-sharing
 - Increases evaluation's usefulness and credibility
 - Clarifies roles and responsibilities
 - Helps enhance cultural competence, protect human subjects, and avoid conflicts of interest

1. Engage Stakeholders

- What?
 - Consult insiders (e.g., staff, clients) and outsiders (e.g., skeptics)
 - Promote inclusion of less powerful groups or individuals
 - Design evaluation to harmonize stakeholder input

2. Describe the Program

- Why?
 - Provides evaluation framework
 - Enables comparison with similar programs
 - Connects program components to effects
 - Helps stakeholders agree on program goals and purposes

2. Describe the Program

- What?
 - Mission and objectives (need, context)
 - Program goals and strategies (expected effects, activities, resources)
 - Capacity for changes
 - Stage of development (planning, implementation, effects)
 - Fit with organization and community
 - Logic Model – visual demonstration of program elements and expected outcomes

3. Focus the Evaluation

- Why?
 - Assess important issues for stakeholders
 - Efficient use of time and resources
- What?
 - Methods (design and procedures)
 - Questions – negotiated and prioritized boundaries, unit of analysis
 - Agreement on program aspects

3. Focus the Evaluation

- What?
 - Purpose/Uses are influenced by stage and context
 1. Gain insight – How will activities create change?
 2. Change practice – How can the program quality, effectiveness, or efficiency be improved?
 3. Assess effects – What is the relationship between activities and outcomes?
 4. Affect participants – What is the actual effect of activities on participants?

4. Gather Credible Evidence

- Why?
 - Used to fully describe the program
 - Establishes credibility
 - Strengthens evaluation judgments and recommendations
- What?
 - Believable and relevant information
 - Use of multiple procedures to gather, analyze, and interpret data
 - Encourage stakeholder participation

4. Gather Credible Evidence

- What kind of evidence?
 - Indicators – measured program attributes
 - Sources – persons, documents, or observations
 - Quality – reliable, valid, and informative
 - Quantity – amount of evidence gathered (affects confidence level, precision estimate, power)
 - Logistics – methods, timing, physical infrastructure for gathering and handling evidence

5. Justify Conclusions

- Why?
 - Meet agreed-upon values or standards set by stakeholders
 - Increase confidence in evaluation results
- How?
 - Standards – set values used for judgment (e.g., participant needs, objectives, policies)
 - Analysis and Synthesis – examination and summary of evaluation
 - Interpretation – practical significance
 - Judgment – program merit, worth, or significance based on set standards
 - Recommendations – actions for consideration

6. Ensure use and share lessons learned

- Why?
 - Guarantees that evaluation processes and results are used and disseminated
- How?
 - Clear design
 - Preparation to use results
 - Feedback before, during, and after evaluation
 - Follow-up – technical and emotional support for users during and after evaluation
 - Dissemination of procedures and findings

Developing SMART Objectives

SMART Objectives

- Develop SMART objectives. Objectives should be SMART— that is, Specific, Measurable, Achievable, Relevant, and Time-specific.

SMART Objectives

- **Specific – What exactly are we going to do and to/with whom?**
 - Specify a target audience and an intended outcome.
- **Measurable – Is it measurable and can we measure it?**
 - Specify a baseline and a target, and specify how/where data are being collected re: this baseline/target.
- **Achievable – Can we get it done in the proposed timeframe, using the proposed activities, for this amount of money?**
- **Relevant – Will this objective lead to the desired results? Does it support the outcomes of the agency's or funder's long-range plan?**
- **Time Specific – By when will we accomplish this objective?**
 - Provide a time frame when the objectives will be met.

Evaluating an Objective

- Imagine the following scenario:
 - You and your team have been given balloons and are given the objective to keep AS MANY BALLOONS AS YOU CAN in the air for one minute. You cannot hold the balloons and you are permitted to help each other. Once a balloon drops to the ground, it is out.
 - You are competing against another team, whose goal is to keep ALL BALLOONS in the air for 1 minute. They cannot hold the balloons and they are permitted to help each other. Once one of their balloons drops to the ground, it is out.
 - Your team drops more balloons than the other team, yet you are rewarded with praise, while the other team is scolded for not achieving their goal.
- Why?

Question 1: Was the goal of keeping "As many balloons as you can in the air" SMART?

Specific	Not Specific
Measurable	Not measurable
Achievable	No because standard is so vague
Relevant	Yes
Timed	Yes

Question #2: Was the goal of keeping "All balloons in the air" SMART?

Specific	Yes - ALL balloons
Measurable	Yes - ALL balloons
Achievable	Not achievable
Relevant	Not relevant
Timed	Yes

Question #3: What happens when a goal is vague?

- Team members may always feel successful
- Mediocrity may be acceptable, as the team may not feel the need to strive for excellence
- What other reasons can you think of?

Question #4: What can occur if the goal is not reasonable?

- Feel frustrated
- Be unmotivated
- Will give up
- Feel not supported
- What other reasons can you think of?

Question #5: What could the leader have done differently to make this more effective?

- Establish clearer goals
- Collaborate on goal setting to avoid confusion and misunderstanding
- Promote group planning on how it will accomplish its goals
- Give practice time
- What other strategies can you think of?

Tips for Writing Objectives

- Give yourself enough time; most objectives go through multiple rewrites
- Brainstorm collectively, but appoint a designated writer to produce draft objectives.
- Beware of goals disguised as objectives (e.g. to promote physical activity)
- Use a mixture of process and outcome objectives.

Let's plan a party!

- Objectives: Lots of people show up. Everybody has fun.
- Are your objectives, specific, measurable, achievable, relevant and time specific?
- How do we measure success?

Logic Models: Pathway to Success



What is Logic Model?

- A "boxy" graphic
- It summarizes...
 - A whole picture of the program
 - What it provides
 - What it aims to accomplish

Activities aka Processes or Tasks

- Events or actions of the program, such as
 - Recruiting seniors
 - Running the program
 - Collecting data

Activities - Processes

- **Recruit seniors (120)**
- **Lead 10-week walking program**
- **Collect data**

Outcome	Impact
20% of seniors will participate in the program by November 2007	To improve the health of older adults (60+) in Honolulu by increasing their level of physical activity and consumption of fruits and vegetables
75% of seniors will complete the program by March 2008	
90% of seniors will be able to walk 10 minutes without stopping by May 2008	

Outputs aka Process Objectives

- Direct products of the program, such as
 - Number of seniors recruited
 - Number of seniors retained

Outputs

Inputs	Activities	Outputs	Impact
AARP Lanai Nutrition Program Pohukahi Site and Joyce Honolulu County and Hawaii State offices on Aging HMSA Foundation funds	Conduct outreach to seniors Develop and implement walking program Identify participants Collect and analyze data Identify new needs for health program	<ul style="list-style-type: none"> • Number of seniors that enroll (120) • Number that complete the program (100 out of 120) 	To improve the health of older adults (60+) in Honolulu by increasing their level of physical activity and consumption of fruits and vegetables

Outputs

Activities	Outputs
Recruit seniors (120)	<ul style="list-style-type: none"> Number of seniors that enroll (120) Number that complete program (100 out of 120)

Outcomes aka Outcome Objectives

- Desired effects of the program, such as
 - Increase in physical activity
 - Increase in benefits of physical activity

Outcomes

Resources	Activities	Outcomes
AARP Lanakila Nutrition Program Pohulani Site and Joyce Honolulu County and Hawaii State offices on aging Foundation funds	Conduct needs assessment Develop and implement program Conduct needs assessment Set up, implement, and evaluate program Evaluate program Monitor program	<ul style="list-style-type: none"> •Increase from baseline in number of steps walked per week (70 out of 100) •Increase from baseline in feelings of energy, endurance, strength, and sound sleep (70 out of 100)

Outcomes

Activities	Outcomes
Lead program for 10 weeks. Collect data.	Increase from baseline in number of steps walked per week.

Impact aka Goal(s)

- Mission or purpose of the program
- Such as
 - Improved conditions,
 - Increased capacity, and
 - Reduce mortality.

Impact

Inputs	Activities	Output	Outcome	Impact
AARP Lanakila Nutrition Program Pohulani Site and Joyce Honolulu County and Hawaii State offices on aging HMSA Foundation funds	Conduct needs assessment Develop and implement program Conduct needs assessment Set up, implement, and evaluate program Evaluate program Monitor program	The needs for health... Number of activities... Number of activities... Number of activities...	70% of patients will gain knowledge... 80% of patients will gain knowledge... 80% of patients will gain knowledge...	To improve the health of older adults (60+) in Honolulu by increasing their level of physical activity.

Discussion

- A lot of variation in logic models
- Time consuming to prepare
- BUT
 - Can standardize activities and outcomes
 - Great guide for evaluation (just develop data collection around the outputs and outcomes)

Triangulation

Qualitative	Quantitative
Interviews	Questionnaires
Focus Groups	-self admin
Participant-Obs.	-face to face
Archival Research	-telephone
	Observation
	Archival

Case Example: Evaluating a statewide social marketing campaign

1% or Less

Intervention

- 6 week campaign held in the summer, 2004
- Targeting current high-fat milk drinkers
- Research tested program
- Press conference with Governor
- TV, radio, newspaper, statewide magazine, internet, posters, bus cards, shelf talkers, and taste tests
- Cultural tailoring to local audience both surface (local faces) and deep (focus of family instead of individuals) structure.

Evaluation

- 3 cross-sectional random digit dial surveys (pre, immediate post, and 3 month follow-up)
Response rate 70%
- 66% ethnic minority (Filipino, Japanese, & Native Hawaiian)
- Milk sales data
- Taste Test Data

Results

Taste Tests

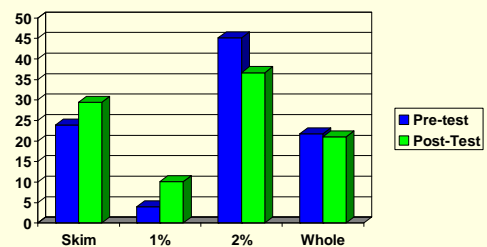
- Conducted at supermarkets and at the state farm fair
- 323 participants
- 92% liked the taste of low-fat milk



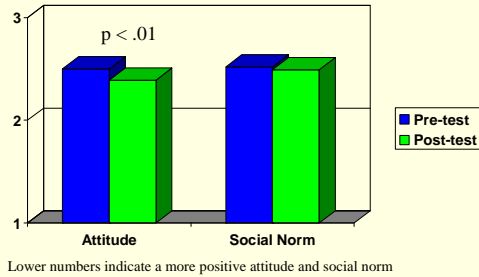
Campaign Awareness

- Overall awareness – 37.8%
- Of those who recalled the campaign...
 - 82.2% saw it on TV
 - 4.1% heard it on the radio
 - 5.0% saw it in the newspaper
 - 1.8% saw it in a supermarket

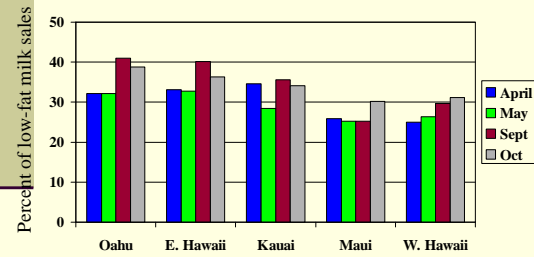
Household Milk Consumption



Attitudes and Social norms



Milk Sales Data



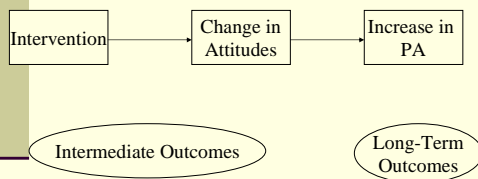
Conclusions

- No suitable comparison group
- Used single group pre and post test
- Triangulation with milk sales data and taste tests
- Excellent external validity
- Reasonable internal validity

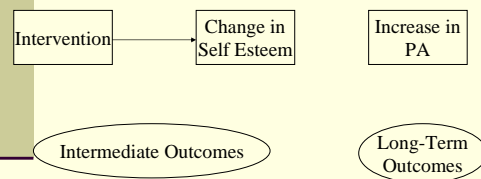
Theory of Change

- Do you have a solid theory of change that can be placed into a logic model.
- Transtheoretical Model, Social-Cognitive Theory, Theory of Reasoned Action
- Inputs – Activities – Outputs
- Short, Medium and long-term objectives

Outcomes Evaluation – Example Middle School PA Promotion



Outcomes Evaluation – Example Middle School PA Promotion



Common Problems in Evaluations

- Failure to specify program objectives
- Lack of comparison or control groups
- Failure to acknowledge limitations of the evaluation design
- Data collection procedures: instruments, reliability/validity, administration
- Relationship of evaluation design to program objectives
- Incomplete evaluation of program
- Study design issues: attrition rates, follow-up, continuity

Questions???

