Evaluation and Monitoring: Developing Indicators and Measuring Impact

Community Development Academy
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Session Plan

• Introductions
• Overview of Concepts and Issues
• Exercises in focusing questions and selecting indicators
• Review of Community Indicator Systems
• Community Indicator Review and Dialogue
• Discussion
Objectives

• Understand the development and use of indicators for program evaluation
• Value a focus on outcomes
• Connect data and conceptual models
• Be aware of data collection issues & strategies
• Use a process to focus evaluative questions
• Use a process to select indicators
• Explore “community indicator systems”
Theories of action (logic models) define the meaning and relevance of data

- Data
- Information
- Knowledge
- Wisdom
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“The construction of knowledge involves the orderly loss of information, not it’s mindless accumulation.” -- Boulding
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*Indicators* are conceptually connected data—they’re answers to questions arising from the logic of the program model.
Frameworks for Performance Measures and Decisions

• Basic research
  – Theories lead to hypotheses

• Policy (applied) research
  – Policy frameworks (logic models) focus key questions…especially results
THE RESULTS of our *efforts* are what make a difference in community development.
There are many performance measurement “results” frameworks

- Budget guidance (State of Missouri)
- Utilization focused evaluation (Patton)
- Program logic models (Kellogg Foundation)
- Balanced score card (State of Missouri OIT)
Why Logic Models?

• A program logic model *links outcomes with program activities* ... and the theoretical principles of the program” (Kellogg, 2001)

• Thus, logic models set up both *formative and summative questions*

• Evaluative answers are “*useful*” when they reduce the risks of making the wrong *decision*
Types of Evaluation

- **Formative**
  - “Improve”
  - Periodic and timely
  - Focus on program activities and outputs
  - Leads to early recommendations for program improvement

- **Summative**
  - “Prove”
  - Were resources committed worthwhile
  - Focus on outcomes and impact
  - Measures value of program based on impact

* Kellogg logic model development guide
There are multiple dimensions and feedback loops—*logical..if then relationships*...
PROGRAM DEVELOPMENT
Planning – Implementation – Evaluation

Program Action - Logic Model

Inputs

Outputs
Activities Participation

Outcomes - Impact
Short Term Medium Term Long Term

Assumptions

External Factors

Evaluation
Focus - Collect Data - Analyze and Interpret - Report

Priorities
Consider:
Mission
Vision
Values
Mandates
Resources
Local dynamics
Collaborators
Competitors
Intended outcomes

Situation
Needs and assets
Symptoms versus problems
Stakeholder engagement

What we invest
Staff
Volunteers
Time
Money
Research base
Materials
Equipment
Technology
Partners

What we do
Conduct workshops, meetings
Deliver services
Develop products, curriculum, resources
Train
Provide counseling
Assess
Facilitate
Partner
Work with media

Who we reach
Participants
Clients
Agencies
Decision-makers
Customers
Satisfaction

What the short term results are
Learning
Awareness
Knowledge
Attitudes
Skills
Opinions
Aspirations
Motivations

What the medium term results are
Action
Behavior
Practice
Decision-making
Policies
Social Action

What the ultimate impact(s) is
Conditions
Social
Economic
Civic
Environmental

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PLANNING: start with the end in mind

Evaluation

What do you want to know? How will you know it?

EVALUATION: check and verify
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Centrality of Engagement

- Develop and sustain relationships
- Ability to mobilize resources
- Collaboration ..... beyond communication and coordination
- Achieving focus
- Sustainable actions
Stakeholder Analysis for Planning and Evaluation

- Who – reputational sampling
- What information (information for what)
- How to mobilize … Interests
- Types of influence (resources)
- Coping with differences
- Source Credibility (expertise—trust)
Dimensions of Data Collection

- Types of Data
- Data Collection Issues
- Data Collection Strategies
- Data Collection Methods
Types of Data

• **Quantitative** (counts, rates, means, closed ended questions)
  – “hard”
  – Requires adequate statistical treatment
  – Require clear context for interpretation

• **Qualitative** (focus groups, case studies, open ended questions)
  – “soft”
  – Requires interpretation
  – Can be powerful or perceived as self-serving
Data Collection Issues

• Validity and Reliability
  – Reproducible—transparent--public
  – Consistent—accurate—precise
  – Number of Cases

• Timeliness and Frequency of Measurement
  – Lagging indicators
  – Infrequent sources (U.S. Census)

• Expense!
Data Collection Issues

• Representative Measures
  – Selection bias – (intended or otherwise)
  – Types of sampling (cluster, stratified)

• Confidentiality (HIPPA/IRB)

• Historical and future availability (trends)

• Disaggregation categories (NCLB)

• Security (encryption, personnel, servers)
Data Collection Strategies

• Quality Assurance
  – Field control -- training
  – *Pilot testing*
  – *Ongoing Monitoring*
  – Documentation

• Units of Analysis (smallest appropriate)
  – Data linkage (merging)
    • IDS and Confidentiality – extract files (without ids)
  – Careful about size of files (data handling – transfers)
Data Collection Strategies

- **Proxy Measures**
  - “Proxy measures of health care status”
  - “Mothers level of education”
  - “repeat clients”—”customer satisfaction”

- **Collaborations**
  - Sharing existing data files
  - Bundling effort (teams, samples, infrastructure)
  - MOUs--Partnerships

- **Stratified Sampling** (categories of interest)
Data Collection Methods

- Existing Data
  - Secondary Data Sources
    - (Census, MCDC, MICA, MERIC, OSEDA)
  - Agency Files and Records (Access)
- New Data Collection (adjusting practices)
  - Clear planning (roles and responsibilities)
  - Direct Costs
  - Impact on Business Practices
    - Personnel
    - Impact on Transaction files
Data Collection Methods

- **Sample Surveys**
  - Interviews (direct and phone)
  - Questionnaires (differential response rates)
  - Direct Observation (protocols)

- **Design issues**
  - Instrument construction (selecting existing items)
  - Sampling
    - Multiple methods
    - As N declines so does reliability
  - Web Applications (Simple—Complex)
Data Collection Methods

- Qualitative Methods
  - Focus Groups
  - Case Studies
  - Open Ended Interviews

- Design issues
  - “Emergent Issues”
  - Time frames
  - Representativeness
  - Analysis and reporting
Coping with Complexity

• Build as simple a plan as possible—determine what you really need & stick to it
• Plan all the way through analysis & **reporting**
• Build a capable team to work your plan
• Consider both internal and external talent
• Adopt an appropriate approach
Helpful Data Management Tools

- Database management systems
  - Pick up trucks (Access) and dump trucks (SQL)
  - Design, Design and Design (Architecture)
- Statistical analysis systems (SAS, SPSS)
- Spreadsheets -- Graphics
- Geographic Information Systems (GIS)
- Web applications
  - “dynamic” On-line analytical processing (OLAP)
  - “dynamic looking” -- Menu guided pages with tables and charts (gif) images
Selected Davidson’s Principles

• Back it up --- Do it now!
• You can’t analyze what you don’t measure.
• Take control of the structure and flow of your data—save a copy of the original data.
• Change awareness—keep a record of data changes and manipulations (diagrams help).
• Implausibility—always check for outliers.

Data Collection Public Resources

• Universities
  – Truman School – affiliated centers
  – Extension – (OSEDA, CPAC, CARES)

• State agencies, including..
  – MERIC (DED)
  – Missouri Information for Community Assessment (MICA) (DHSS)
  – MCDC – Missouri Census Data Center
Focusing Assessment Indicators

- **“SMART” INDICATORS**
  - Specific
  - Measurable
  - Attainable
  - Results-oriented
  - Timed

- **Assessing Indicators**
  - cost, access, availability, compatible, clear
  - Reliability and Validity
Focusing Questions and Selecting Indicators: Exercises 4 & 5

• Select a logic model--(MOREnet or Other)
• Scan Chapter 4 of Logic Model Guide
• Develop one formative question and one summative question from a focus area #4
• Then define Audience, Question, and Use
• Then Develop an indicator for each question #5
Community Indicator Systems
General Characteristics of Community Indicator Systems

- Open for involvement of a wide constituency
- A "big-picture" perspective
- A plan of work based on an objective review of data
- Action based on consensus
- Involving those directly affected by critical problems and needs

*See National Association of Planning Councils*
Some Missouri Systems

Missouri Kids Count
http://osedao.missouri.edu/kidscout/

Boone County Indicators Project
http://www.booneindicators.org/mission.shtml

School Data: School Improvement Information
http://www.dese.mo.gov/schooldata/

Vision for Children in St. Louis
Vision for Children at Risk, St. Louis, Missouri.
National Award Winners & Sustainability Sites

- the Community Indicators Consortium Project of the Brookings Institute: http://www.brookings.edu/metro/umi/cic_awards.htm
- Really cool site with focus on “sustainability indicators” http://www.sustainablemeasures.com/
- The International Sustainability Indicators Network
  - http://www.sustainabilityindicators.org/
Constructing Composites

• Kids Count County Rankings
• Composite of standardized indicators
• Rank order of composite scores
• Excel file illustration
  – Standardized indicator is not too complex
  – But it has a funny name “z-score”
Development of Senior Report

- Set of preliminary indicators
- 47 town meetings involving @ 500 people
- Developed issues inventory
- Indicator suggestions
- Report format recommendations
- Partners and advisory committee
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