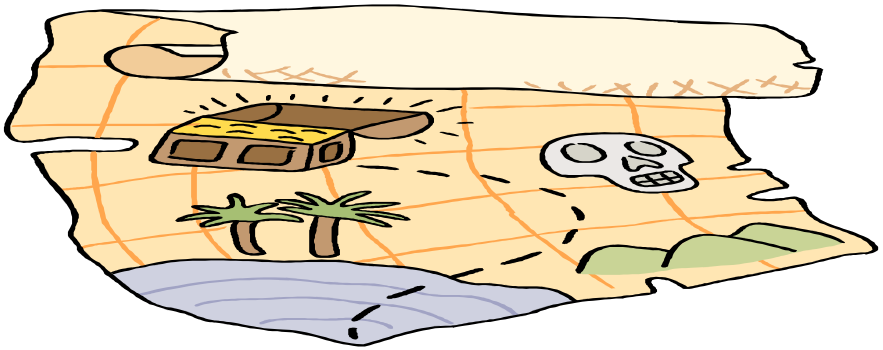
Evaluation and Monitoring: Developing Indicators and Measuring Impact

Community Development Academy
March 2006



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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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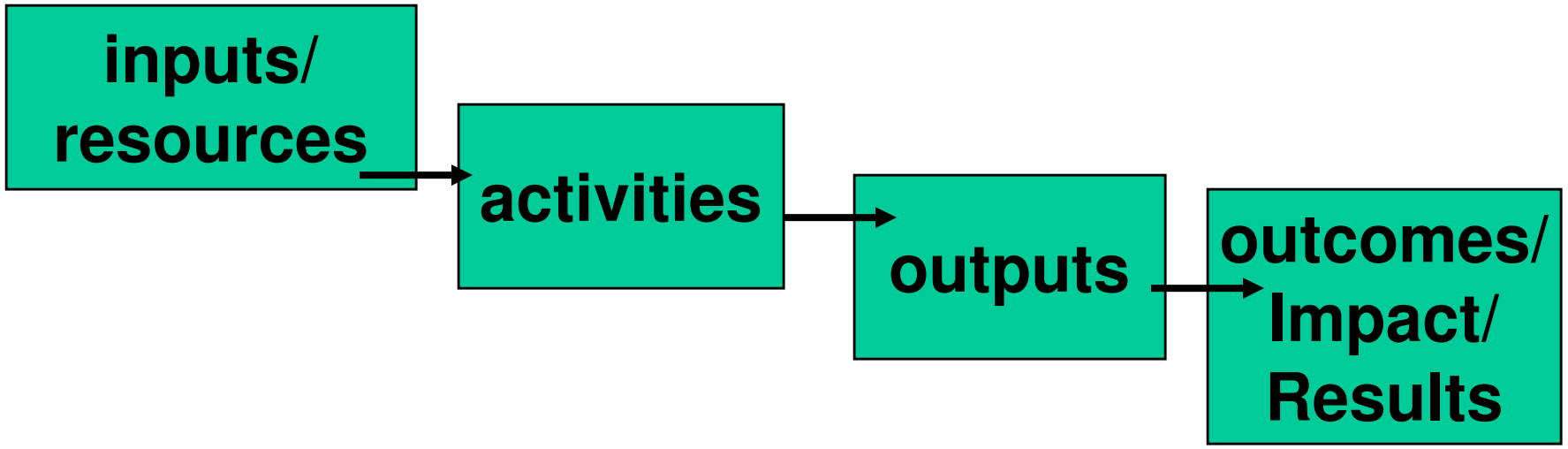
Indicators are conceptually connected data—

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***

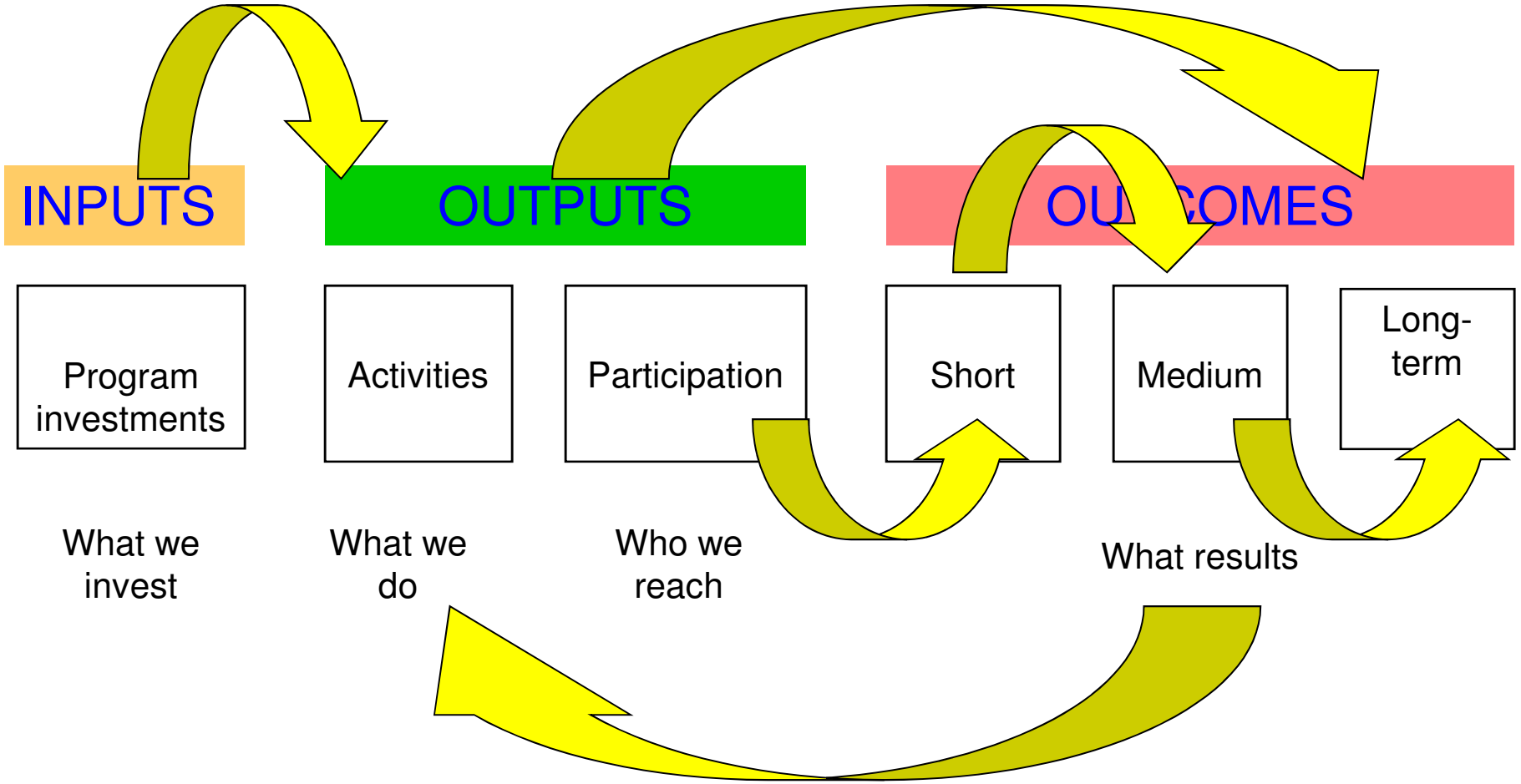
- **Evaluative answers are "*useful*" when they reduce the risks of making the wrong *decision***

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

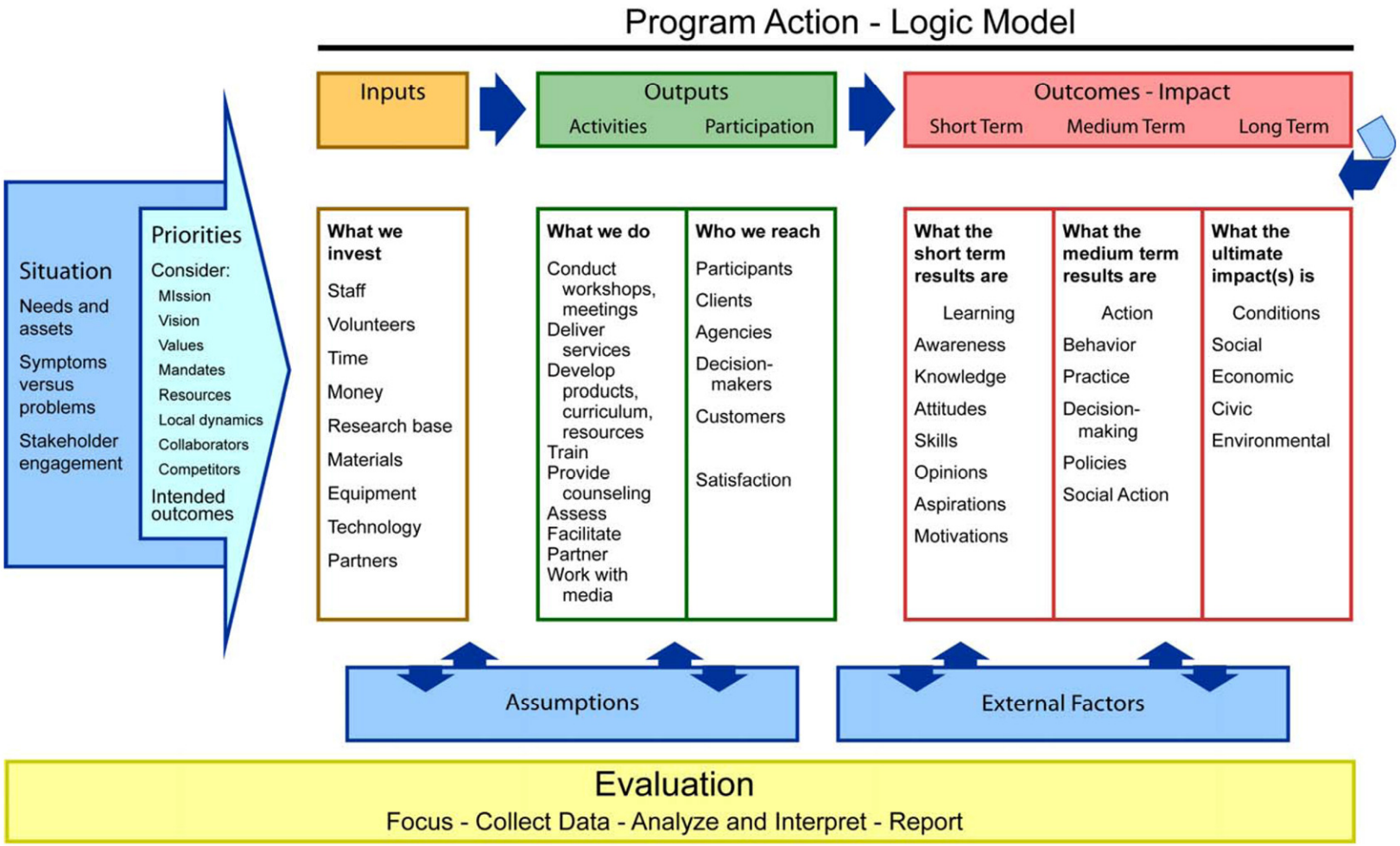
*** Kellogg logic model development guide**

There are multiple dimensions and feedback loops—***logical..if then relationships***…



PROGRAM DEVELOPMENT

Planning – Implementation – Evaluation



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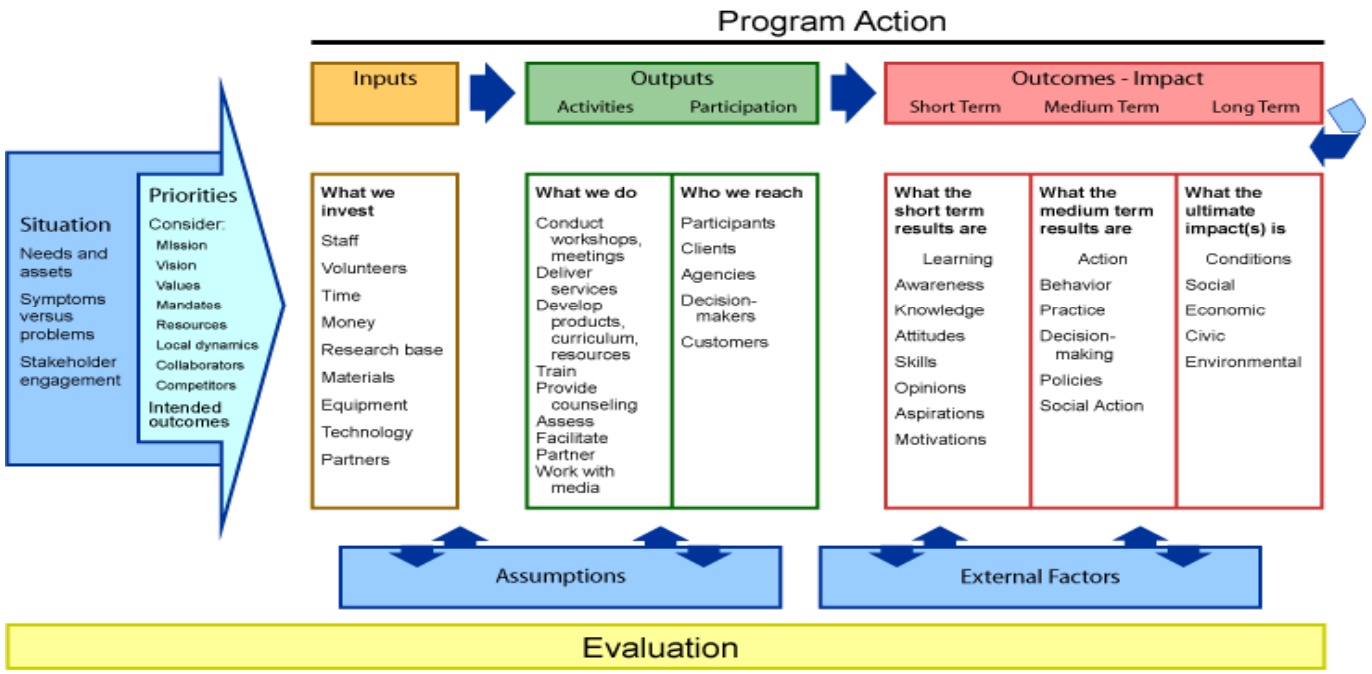
PLANNING: start with the end in mind



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.

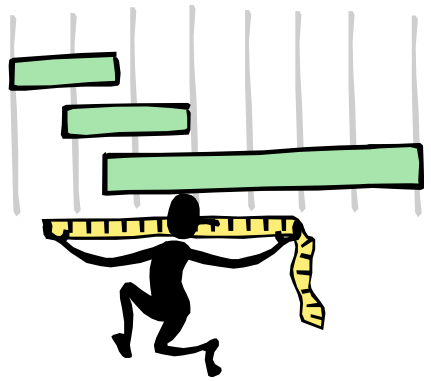
Source: Davidson, Fred, (1996) Principals of Statistical Data Handling, Sage Publications, Thousand Oaks, Ca.

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://oseda.missouri.edu/kidscount/

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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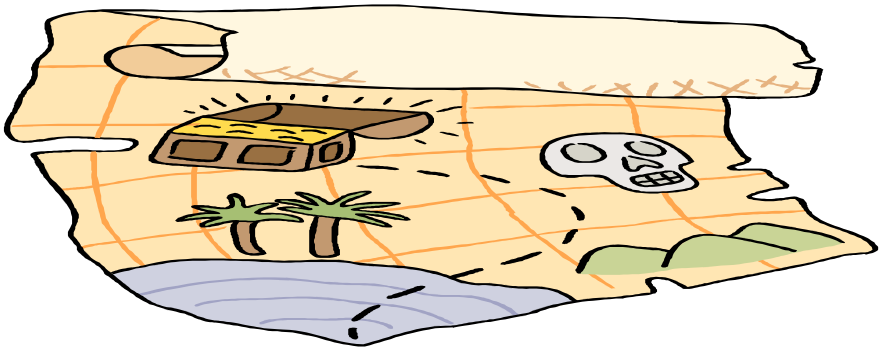

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