What Should I Do With This Stuff?

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Using Data to Support and Evaluate System Development Work

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Presentation Goals

- Underscore the importance of being strategic
- Describe data types and uses
- Provide a basic example using the ECC Framework
- Provide information on the selection of indicators
- Questions (time permitting)

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Reflecting on This Work

- In general, this work involves building an ECE system through the alignment and re-organization of existing programs and services, adding new or augmenting existing programs and services, and developing and implementing policy
- This is complicated work – we don't have road maps or cookbooks to tell us how to do this and communities differ in their needs and approaches
- This complexity makes it difficult to identify the most useful set of data or indicators
- However, the more precisely your strategies are specified the easier it is to determine what to measure

The Importance of Being Strategic

- Data are reactive – they change (you hope) in response to your strategic efforts
- Therefore, indicators need to be selected in direct relationship to your efforts
- If these efforts are not clearly defined and/or based in some theoretical or logical approach then we cannot hope that our indicators will be impacted
- Furthermore, we need sufficient focus and/ or dosage in our efforts to obtain community level changes

More on Logic/Theory

- To be confident that we have a chance of obtaining an effect requires that we have a logical theory of change that runs through our program or system model – *this will likely lead to that*
- Careful attention to the assumptions within a theory of change helps us select the best single or mix of strategies to achieve our goals
- Often we don't have certainty that what we proposed will have the effects we want (remember, no cookbook). So starting with a strong, logical model helps us evaluate what did and did not work and informs later decisions

Mixing up Your Metaphors

- The concept of a logic model is sufficient for simple programs but may not serve as the right framework for system building efforts
- Consider a new metaphor for systems work: the ecosystem
  - How do the pieces best fit together
  - What components are missing
  - What components need re-calibration – increases, decreases
  - How do these ideas logically relate to what we are trying to achieve

Data in Use
(*The really exciting part*)
But first some definitions
(The really boring part)

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So Many Data Types, So Little Time
Decidedly un-Zen

Terms	Definitions	Examples	Related Terms
Client Characteristics	Description of the service population	Age, sex, ethnicity	Demographics Intake information Inputs Problems/issues
Needs	Description of needs	% youth not school ready	
Strategies	Strategic approach	Teacher curriculum	Process measures Interventions Services Dose
Activities	How strategy is implemented	Specific teacher training	
Outputs (dosage)	How much	Amount of training	
Outcomes	Change in knowledge, beliefs, behaviors, attitudes, bonding	Improved school bonding	Short-term/long term Proximal/distal Effects Risk/protective factor Assets Contributing factors
Objectives	How much or degree of change	80% youth exiting the program will be school ready	
Indicator (of Goal Achievement)	What the outcomes can achieve usually at the population or community level	School readiness will increase by 5% in the youth population	Impacts Long-term outcomes Vision

Boiling it Down

- For simplicity, let's reduce this set down to two categories:
  - **Process**: the measurement of what we do, how we do it, with whom, etc.
  - **Outcome**: the measurement of the results we get from our efforts (our processes)
  - *Process variables help us determine the circumstances under which we do and do not obtain effects (as measured in our outcomes)*

Boiling it Down

- And, let's further understand that there are two types of data:
  - **Primary Data:** Data you collect (we'll call these "measures")
  - **Secondary Data:** Data you can access that someone else has collected (we'll call these "indicators")
  - *These represent very different levels of data collection burden*

Armed with these Data Concepts,
Lets Examine them with Respect to
Program Evaluation and
Impact Evaluation
(you'll probably do some of both)

Their Difference and Relationship

- Program Evaluation is the process of collecting data on specific programs and strategies to determine their effectiveness
- Impact Evaluation looks beyond immediate results to identify longer-term as well as unintended program effects. It may also examine what happens when several programs operate in unison
- Impacts can be measured by grouping together individual program evaluations or through the use of related indicators

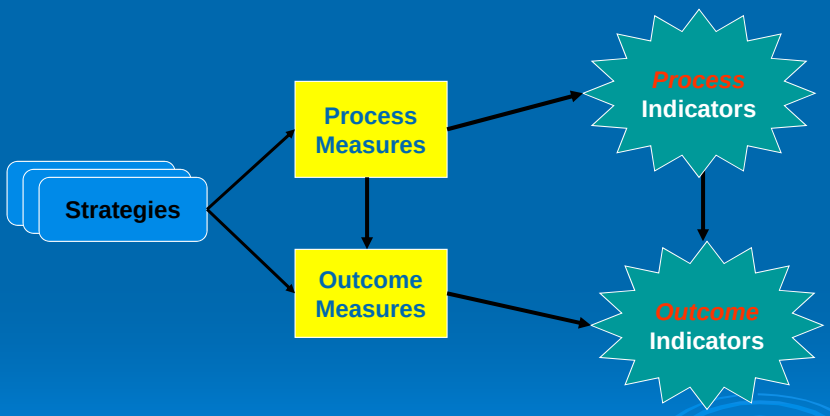
A Zen Moment

	Measure (primary)	Indicator (secondary)
Process	Program Evaluation	Impact Evaluation (may be primary)
Outcome	Program Evaluation	Impact Evaluation

Some Data Examples

- Examples of Process and Outcome variables
  - **Process**
    - **Number of clients served by a program (measure-M)**
    - **Dosage of service provided (M)**
    - **Components of system plan implemented (Indicator-I)**
    - **Degree of service expansion (I)**
  - **Outcome**
    - **Immediate program effects on clients (M)**
    - **Aggregate effects on a targeted group of individuals (I)**
    - **Impacts observed across the community (I)**

Another Zen Moment
The Model



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The Model Checklist

- Is there evidence (data) to support the importance of the selected goal (i.e., need)?
- Are there strong linkages (research support) between the selected strategies and defined goal?
- Is there evidence to support the selection of the identified strategies (evidence-based, best practice)?
- Is there sufficient coverage across the strategies that suggest, taken together, the goal/indicator will be impacted?
- Are my match up with all model components?

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An Example

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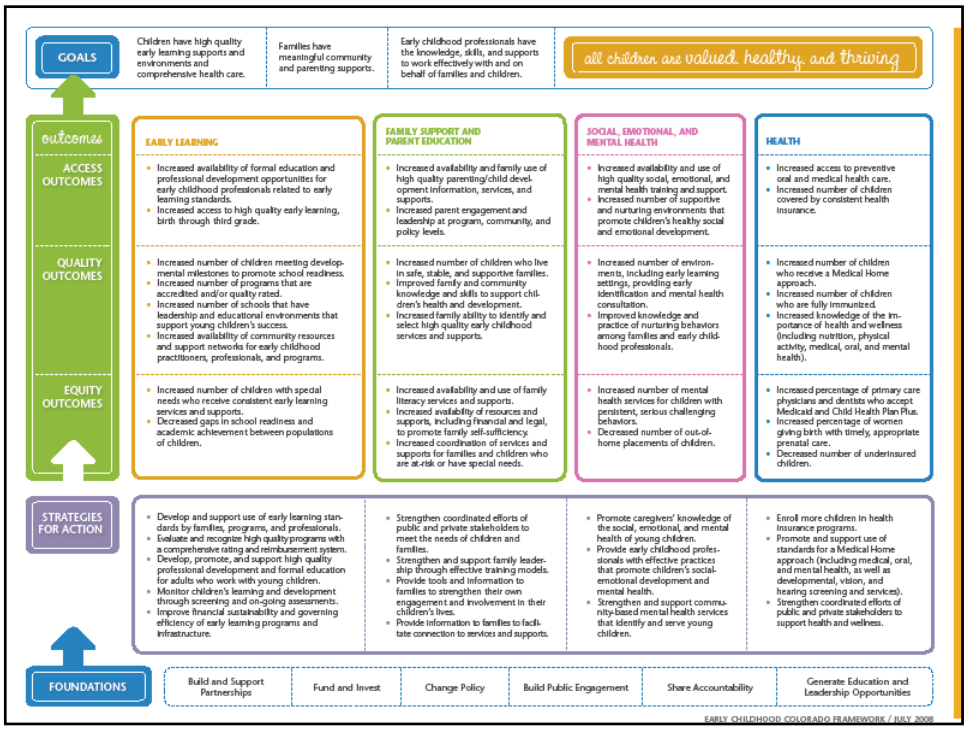

Through the Lens of the ECC Framework

- Goal: Children have high quality early learning supports and environments and comprehensive health care
- Strategy: Develop and support use of Early Learning standards by families, programs and professionals

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Through the Lens of the ECC Framework

Assess the Logic of the Relationship

- Does the strategy necessarily lead to the goal
- Is this the best way to get to that goal in my community
- How complicated will the strategy and related activities be to implement

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Operationalize the "Strategy"

- Strategy: Develop and support use of Early Learning standards by families, programs and professionals

- Define/operationalize these terms
- Develop specific approaches that logically lead to "developing" and "supporting"
- Examine approaches by populations
- Determine what can be done programmatically and what must be done through systems work

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Develop Process Measures

- Strategy: Develop and support use of Early Learning standards by families, programs and professionals

- Create *process measures* for each of the approaches that get you to "developing" and "supporting" use

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Select Measures/Indicators

- Access Outcome (indicator): Increased *availability* of formal education and professional development opportunities for early childhood professionals related to early learning standards.
- Determine how to measure increased "availability" within a group or across all childhood professionals

Select Measures/Indicators

- Quality Outcome (measure/Indicator): Increased number of children meeting *developmental milestones* to promote school readiness.
- Determine measures for program-specific milestone achievement
- Determine indicators for measuring milestone achievement that correspond to school readiness as across the community

The Leap of Faith Short Cut

Forget about evaluating programs and go right for the indicator

A Little More on Indicators

What the heck is an Indicator

- Something that provides a measurement of our progress toward a goal
- A way to measure, indicate, point out or point to with more or less exactness
- Something that is a sign, symptom or index of
- Something used to show visually the condition of a system

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Indicator Roles

- An effective indicator or set of indicators helps a community determine where it is, where it is going, and how far it is from chosen goals
- They help make complex systems understandable or perceptible
- Indicators are sometimes called “performance targets” since they help direct us to where we want to go

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Criteria for the Selection of Indicators

- What makes a good indicator – some criteria:
  - Availability
  - Reliability
  - Validity
  - Sensitivity to Change
  - Policy Relevance
  - Understandability

What Did We Learn?

- It is critical to be strategic
- Process vs. Outcome Measurement
- Primary (Measures) vs. Secondary (Indicators) data
- Program Evaluation vs. Impact Evaluation
- The importance of modeling relationships and assessing theoretical assumptions
- The importance of connecting data directly to areas of our model
- Criteria for the selection of indicators