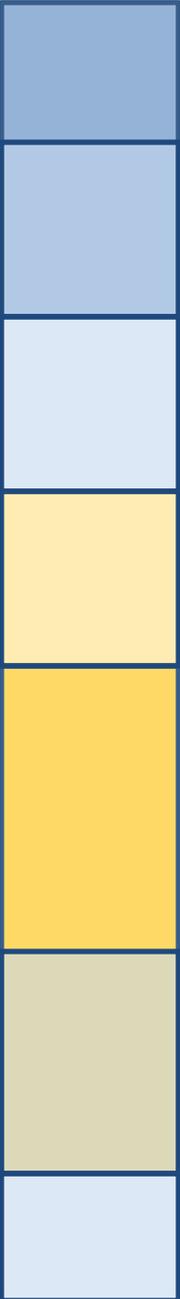


# PROGRAM EVALUATION FOR PROMISING HOME VISITING APPROACHES

Charles Michalopoulos, Ph.D.  
*MDRC*

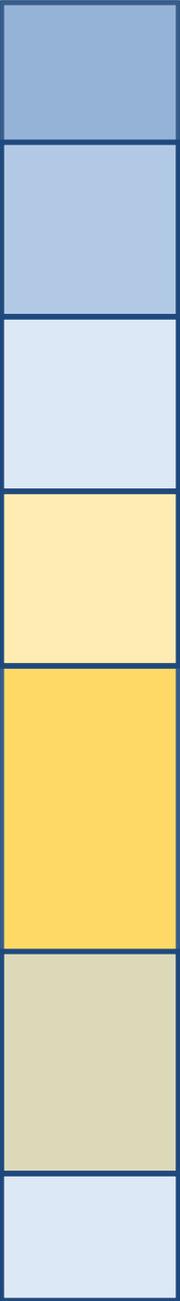
Chris Blodgett, Ph.D.  
*Area Health Education Center of Eastern Washington  
Washington State University*

*April 14, 2011*



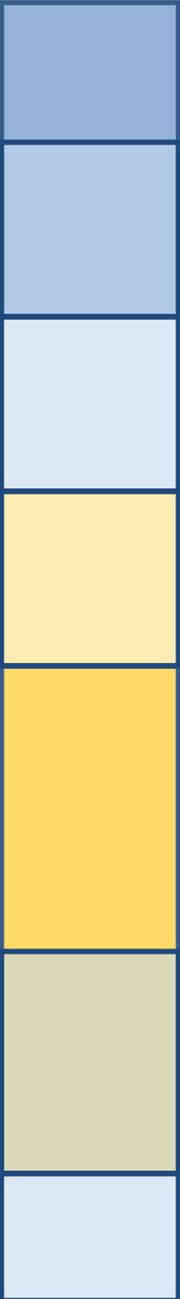
# DOHVE: Design Options for Maternal, Infant, and Early Childhood Home Visiting Evaluation

- Working with US-DHHS to support the federal Maternal, Infant, and Early Childhood Home Visiting Program
- DOHVE:
  - ✓ Design options for a federal evaluation of evidence-based home visiting programs
  - ✓ Evaluation-related Technical Assistance (TA) for “promising approaches”
  - ✓ TA for grantees’ continuous quality improvement (CQI), Management Information Systems (MIS), and benchmarks



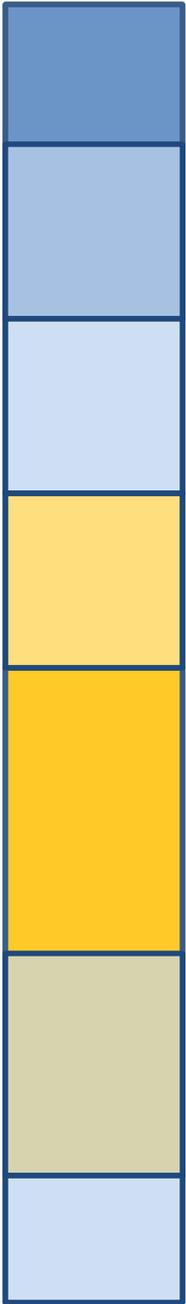
# DOHVE Evaluation TA Team

- James Bell Associates (JBA)
- MDRC
- Cincinnati Children's Hospital Medical Center & Every Child Succeeds

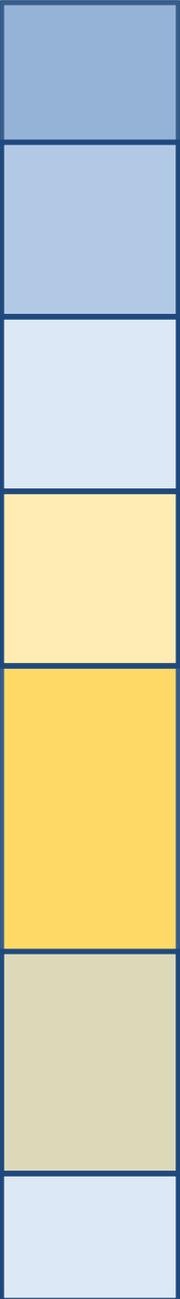


# Goals of Session

- Briefly summarize requirements for evaluations of promising approaches
- Discuss whether to conduct an effectiveness study of promising home visiting approaches
- Describe different evaluation designs
- Overview of developing an evaluation plan
- Introduce guidelines for participatory and empowerment research practices



# Requirements for Evaluating Promising Approaches



# Evaluation Must Be “Rigorous”

- Credibility
  - Accurate, best design feasible
- Applicability
  - Generalizable, must study relevant group
- Consistency
  - Results replicable by other researchers
- Neutrality
  - Results must be objective

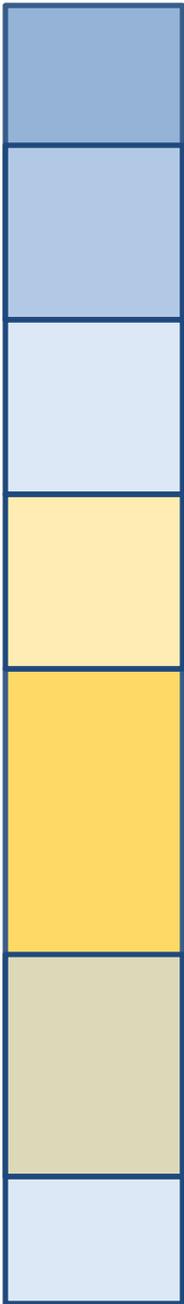
# DHHS Criteria for Evidence of Effectiveness

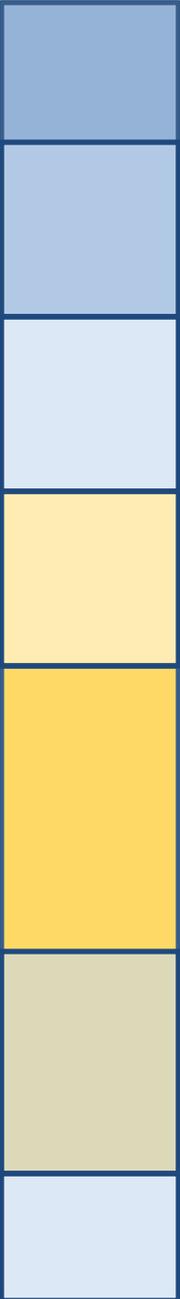
Studies that use a comparison condition:

- Randomized controlled trials (RCTs)
- Quasi-experimental designs (QEDs)
  - Matched comparison designs
  - Single case designs (SCDs)
  - Regression discontinuity designs (RDs)

Studies are assigned a rating based on the study's ability to provide credible estimates of a program model's impact.

- **High:** Well implemented RCTs, SCDs, RDs
- **Moderate:** RCTs, SCDs, RDs with problems; well implemented QEDs
- **Low:** Did not meet standards for high or moderate

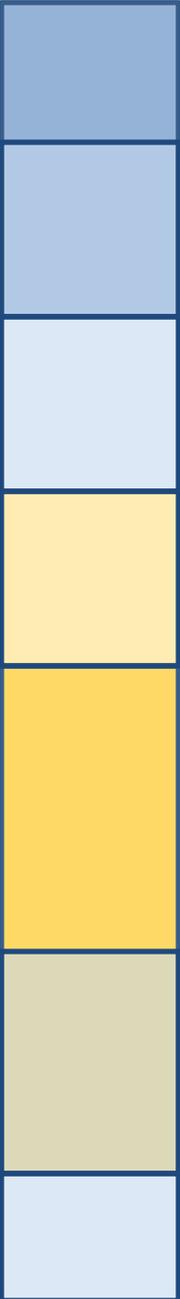




# DHHS Criteria for Evidence of Effectiveness (continued)

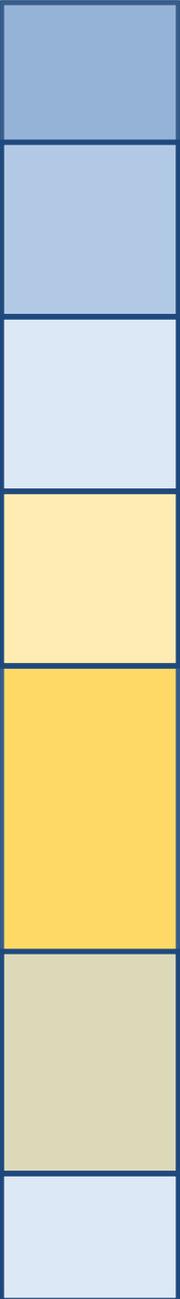
DHHS set the criteria for an “evidence-based early childhood home visiting service delivery model:”

- At least 1 high- or moderate-quality impact study with favorable, statistically significant impacts in 2 or more of the 8 outcome domains, or
- At least 2 high- or moderate-quality impact studies (with non-overlapping analytic samples) with 1 or more favorable, statistically significant impacts in the same domain



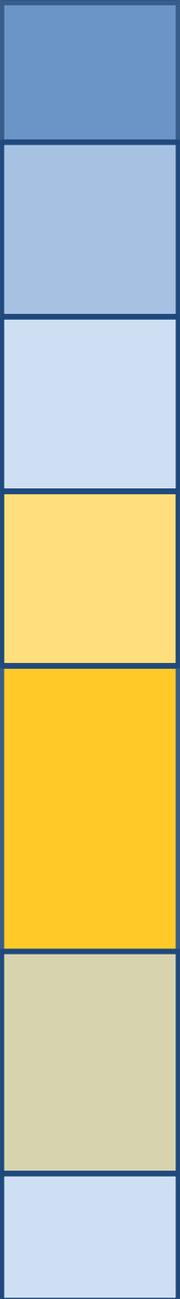
# DHHS Criteria for Evidence of Effectiveness (continued)

- Impacts must be either:
  - Found for the full sample
  - If found in subgroups only, be replicated in the same domain in 2 or more studies using non-overlapping samples
- Following the legislation, if evidence is from RCTs only:
  - At least 1 statistically significant, favorable impact must be sustained for at least 1 year after program enrollment
  - At least 1 statistically significant, favorable impact must be reported in a peer-reviewed journal

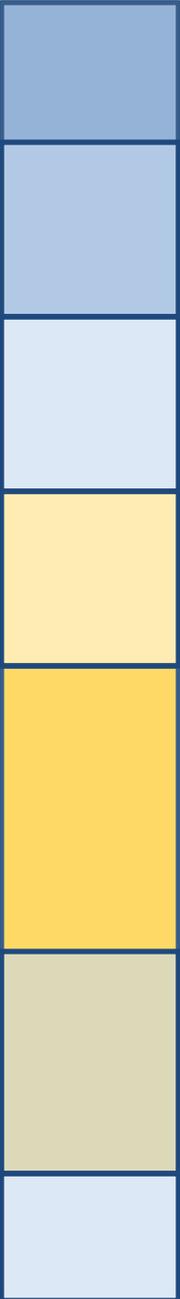


# Updated State Plan Must Describe the Evaluation

- How the evaluation will be conducted
  - Evaluation methods, measurement, data collection, sample, timeline, IRB review, analysis
- Identify evaluator
  - Can use in-house or outside evaluator
  - Evaluator must be independent, objective
- Logic model and conceptual framework
  - Shows links between services and outcomes

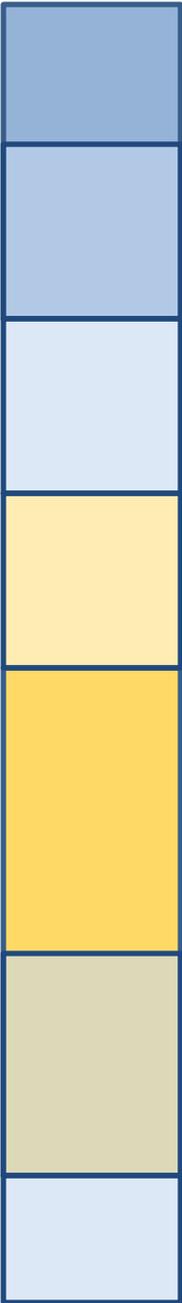


# Whether to Conduct an Effectiveness Study



# Two Broad Types of Evaluation

- Effectiveness study
  - How much does the approach improve outcomes for families compared to what would have happened without the approach?
- Process study
  - Is the promising approach being implemented as intended?
  - How could implementation be improved?



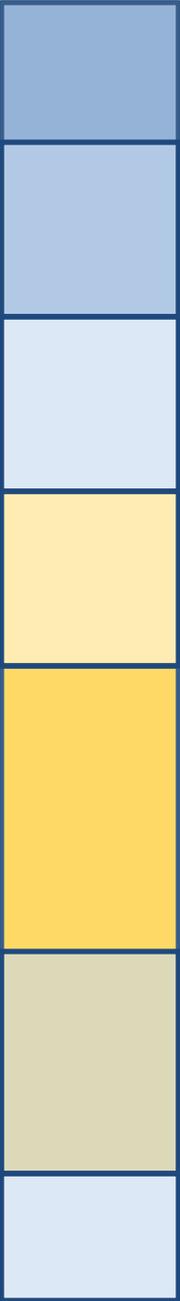
# Examples of Questions Answered by the Two Types of Evaluations

## Process study

- How many families were served?
- How often were services provided?
- How long did families participate?
- How closely did services correspond to the model?
- How satisfied were families?

## Effectiveness study

- How much did child and maternal health improve (because of the approach)?
- Was child abuse and neglect reduced?
- How much did child development and school readiness improve?



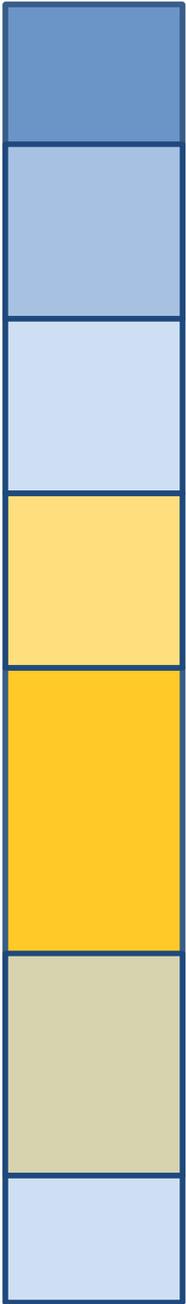
# Pros and Cons of an Effectiveness Study

- Pros

- Can provide data to move the approach into the evidence-based category
- Can benefit the state and the field in understanding what home visiting approaches benefit families

- Cons

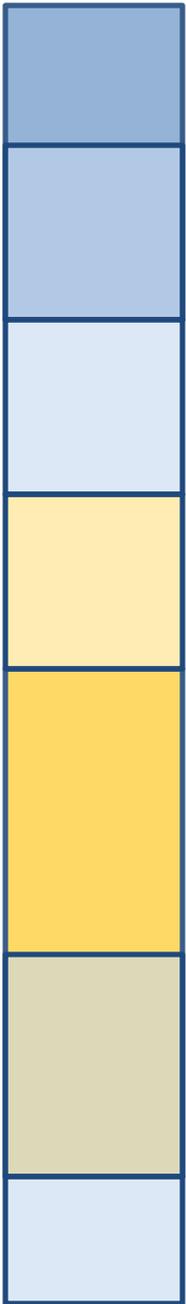
- Resources needed for data on comparison group
- Need many families to obtain precise estimates
- Process study can be useful to strengthen the program before measuring impacts



# Overview of Effectiveness Designs

# Effectiveness Designs: Random Assignment

- Families are assigned at random to home visiting or a control group
  - Requires more families than are served
  - Sometimes used to compare two different approaches
- Pros
  - Only method guaranteed to provide unbiased estimates of the program's effects
- Cons
  - Some eligible families will not receive the promising approach



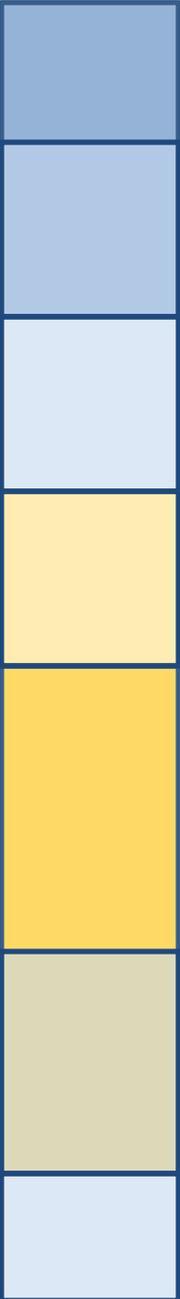
# Random Assignment: How Many Families Do You Need?

Size of program group	Size of control group	Detectable effect on % of mothers with depression
30	30	17.5
50	50	13.5
100	100	9.6
200	200	6.8
500	500	4.3

Example: 30 families in each group could detect drop in depression from 88 percent of the control group to 70.5 percent of the program group

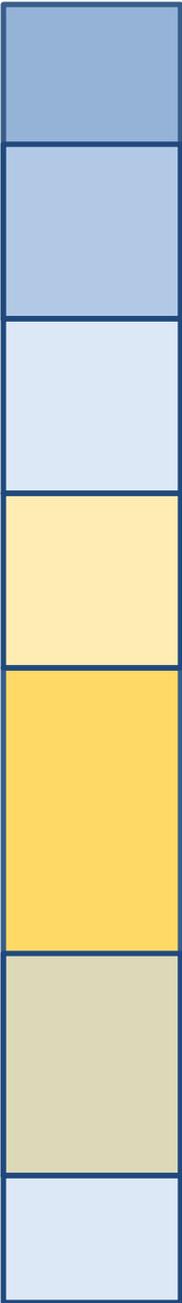
Key result: detectable effect drops in half as the sample quadruples

Results even less precise with comparison group, regression discontinuity



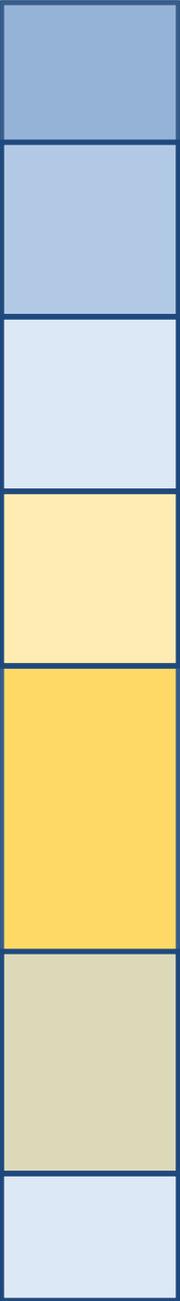
# Effectiveness Designs: Comparison Group Methods

- Comparison group is deliberately (i.e., not randomly) chosen
  - Can come from a waiting list, families not referred for home visiting, those who decide not to receive home visiting, other parts of the state, etc.
- Pros: do not have to deny families services
- Cons: subject to selection bias
  - Families receiving home visiting may be fundamentally different than the comparison group
  - Results would reflect those differences as well as the effects of home visiting



# Effectiveness Designs: Regression Discontinuity

- Appropriate if families are ranked and those above a threshold are eligible for home visiting
- Pros:
  - Do not have to deny services to eligible families
  - Provides unbiased estimates for families near the threshold
- Cons:
  - Provides information only on the effects for families near the threshold
  - Requires more families than other designs

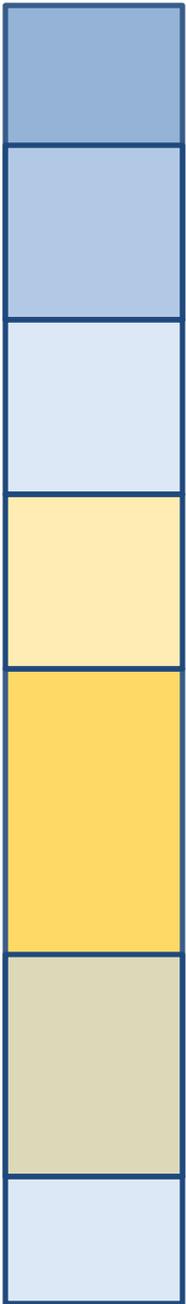


# Effectiveness Designs: Single Case Design

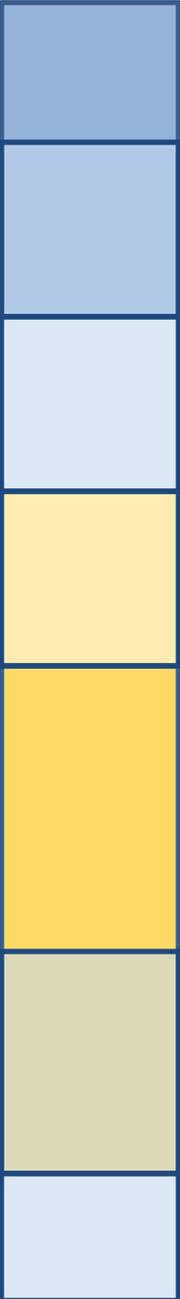
- Repeated observations of families before and after promising approach is used
  - Does the trend in a family's outcome improve after they receive the promising approach?
- Pros:
  - HomVEE standards can be satisfied with small samples
  - Do not have to deny families services
- Cons:
  - Intervention should have large and rapid effects
  - Requires substantial information on families prior to home visiting

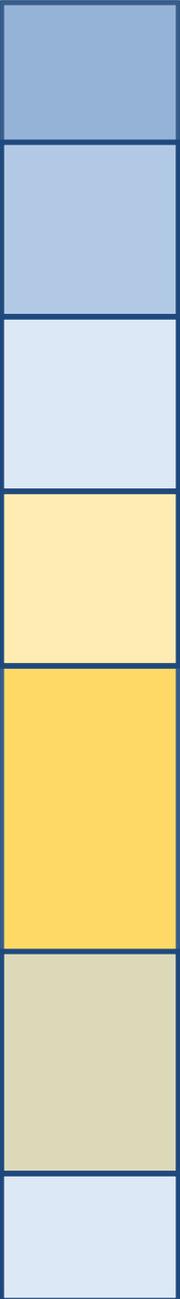
# Effectiveness Designs: Which One to Choose?

- Can all eligible families be served?
  - Randomization can be a fair way to determine who receives services while providing the best evidence of effectiveness
- Are there quantifiable criteria that determine eligibility?
  - If so, a regression discontinuity design might work
- Will the effects be immediate and large?
  - Single case design might work
- Else, choose a non-random comparison group
  - But results are subject to selection bias



# Getting to Effectiveness Evaluation Includes Some Critical Development Steps

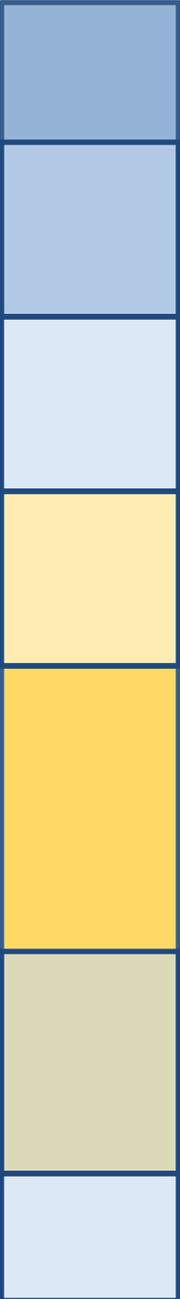
- 
- Level of development for a promising model
  - Successful effectiveness evaluation requires ready staff and data collection practices to describe program impacts and outcomes
  - Getting to this level of readiness may involve sequenced steps in an evaluation plan
  - Participatory research methods are practical steps in conducting a quality effectiveness evaluation in routine service settings



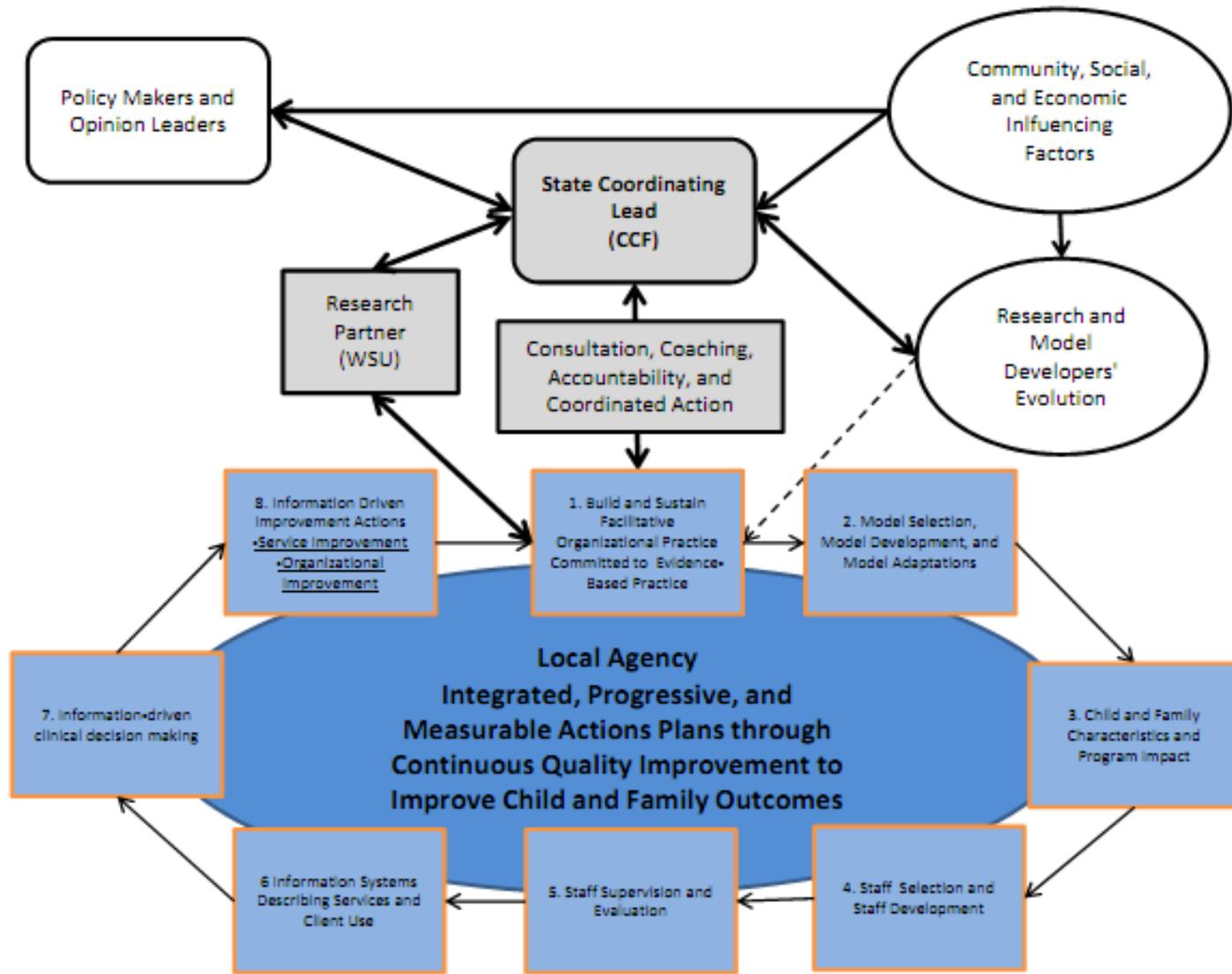
# Laying the Groundwork for Promising Approach Evaluation

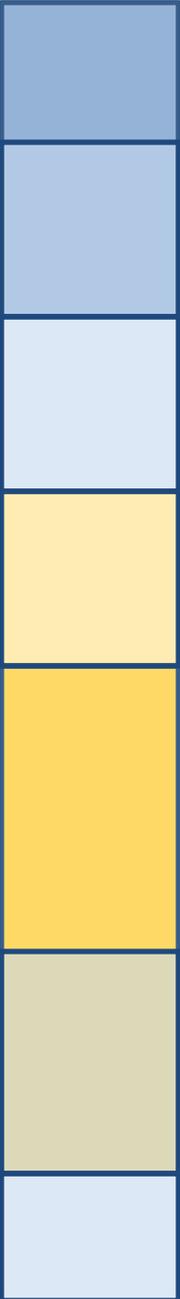
- A developmental progression in documenting program model efforts and client outcomes
  - Clarity in defining and documenting the model's intervention (Can you measure what you do?)
  - Capacity to describe who you serve and what they need (Can you effectively describe who you serve?)
  - Capacity to measure outcomes aligned with the model and capacity of your providers (Do you have the systems, tools, and skills to succeed?)

# Steps to Guide Evolution to Effectiveness Research in Promising Approach Evaluation

- 
- Model's intervention activities are clearly defined and can be measured (dose and content)
  - Clients can be clearly described within the model and on dimensions related to the outcomes
  - Staff are capable of collecting information and a data system is in place
    - Baseline to outcome data collection practices developed
  - Culturally acceptable and sensitive measures of program impact and client change are in place
  - The providers are committed to evaluation and CQI
    - There are feedback mechanisms to have information guide practice

An Implementation Development and Research Model for Home Visiting System Development

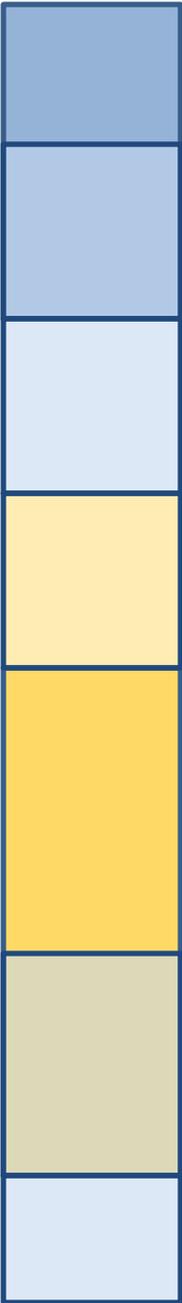


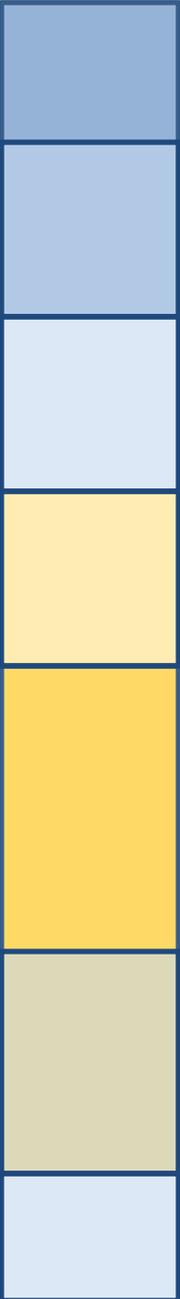


# Building an Evaluation and Implementation Team

- Investing in evaluation and building support for this investment
  - Locating/hiring an evaluator
  - 15-20% of budget
- Engaging your community in selection and support (formative evaluation task in SIR)
  - Build the plan
  - A cycle of continuous activities and relationship development to support CQI
- Participatory and empowerment evaluation

# Steps in the Evaluation Process

- 
- Determination of key participants, roles, decision-making, and communication
  - Establish the formal research agreement
    - Engagement and consent
    - Question, intent, roles, decision-making
    - Maintenance and development of the collaborative
    - Participant learning and benefit as explicit values



# Steps in the Evaluation Process (cont.)

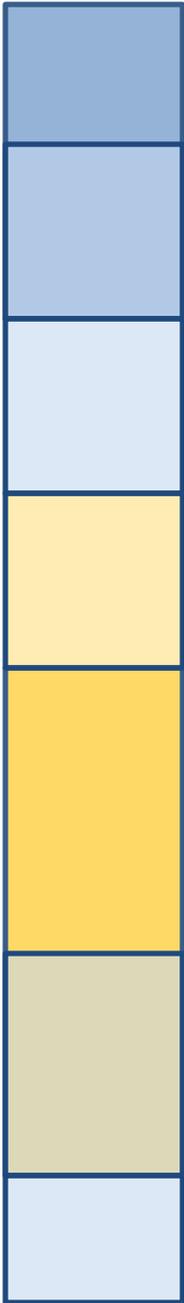
- A clear theoretical problem statement guides the research
- Evidence-informed conceptual framework
- Define research questions and methods
- Rigorous research implementation and data collection methods
  - Research is an iterative process to be specified and managed
- Use process evaluation to address
  - Fidelity to the research method
  - Threats to internal and external validity
  - Benefits of the participatory process

# Next Steps

Stay tuned for additional webinars, individualized TA, and other information from the DOHVE Evaluation TA team...

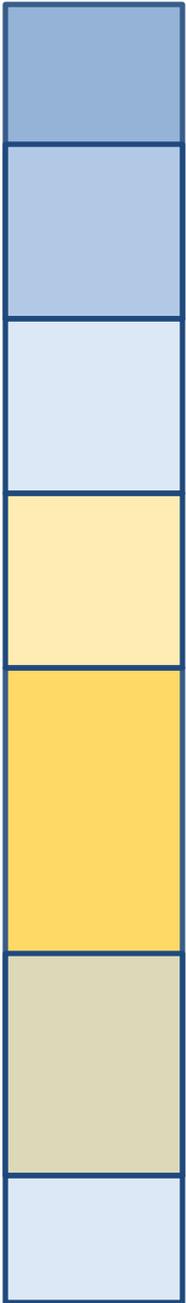
## ✓ Developing evaluation plans

- Developing logic models
- Identifying data collection methods and sources
- Developing IRB protocol
- Analysis strategies

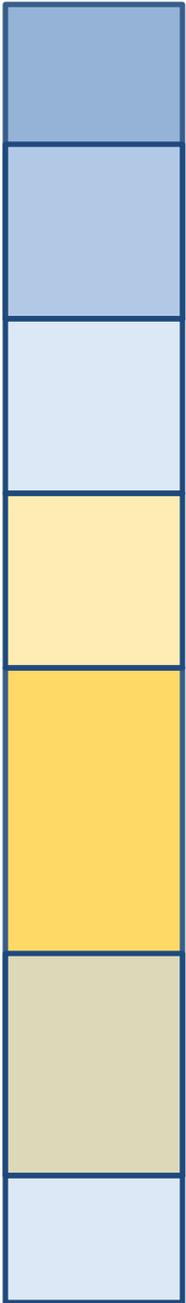


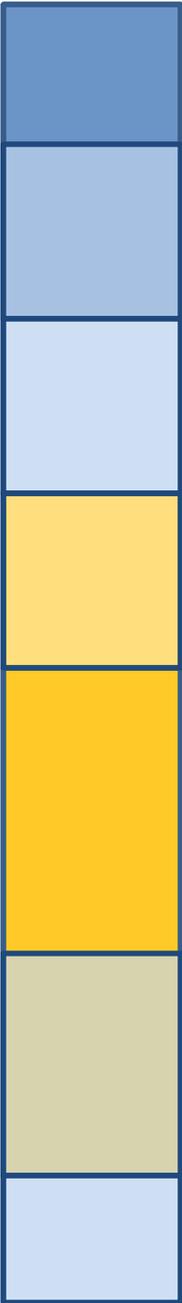
# Recent Webinars

- Building a culture of quality in home visiting-  
January 13, 2011
- Designing and Using an Effective Data  
Management System: Components and  
Considerations- February 24, 2011
- Measuring Benchmarks: Indicators and Tools-  
March 3, 2011
- All webinar slides and recorded sessions are  
available at:  
[http://www.mdrc.org/project\\_12\\_104.html](http://www.mdrc.org/project_12_104.html)



# Questions and Comments





# For more information...

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