

# Evidence-based programs: A failed experiment or the future of human services?



Blueprints 2012

**Dean L. Fixsen, Karen A. Blase,  
Leah Bartley, Michelle Duda,  
Sandra Naoom, Allison Metz,  
Barbara Sims, Melissa Van Dyke**  
National Implementation Research Network  
Frank Porter Graham Child Development Institute  
University of North Carolina at Chapel Hill



**UNC**

FPG CHILD DEVELOPMENT INSTITUTE

# The Golden Age

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**During the Golden Age of research in human services, the field has been dominated by the randomized, controlled experimental paradigm**

# The Golden Age

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**A key lesson from the Golden Age is that the effects of social programs in practice hover near zero, a devastating discovery for social reformers**

# The Golden Age

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**A consequence of these findings  
is the recognition of the  
importance of implementation  
research in overall evaluations**

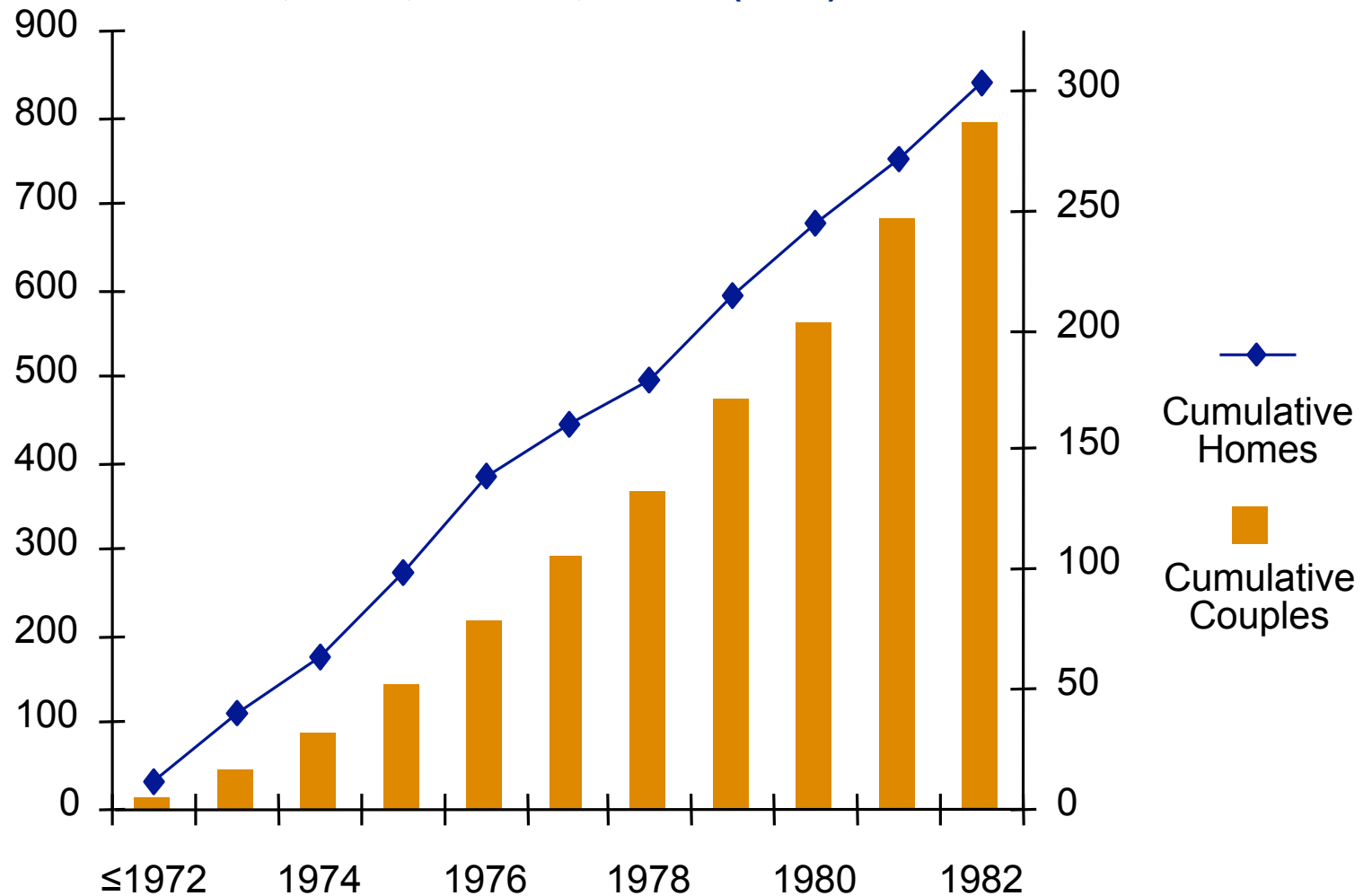
# The Golden Age

🚩 **Rossi, P. H., & Wright, J. D. (1984). Evaluation Research: An Assessment. *Annual Review of Sociology*, 10, 331-352.**

🚩 **Summarized the Golden Age that began with Kennedy in 1962, flourished during Johnson's Great Society programs, and ended with Reagan in 1982**

# Teaching–Family Replications

Fixsen, Blase, Timbers, & Wolf (2001)



# Follow Through Programs

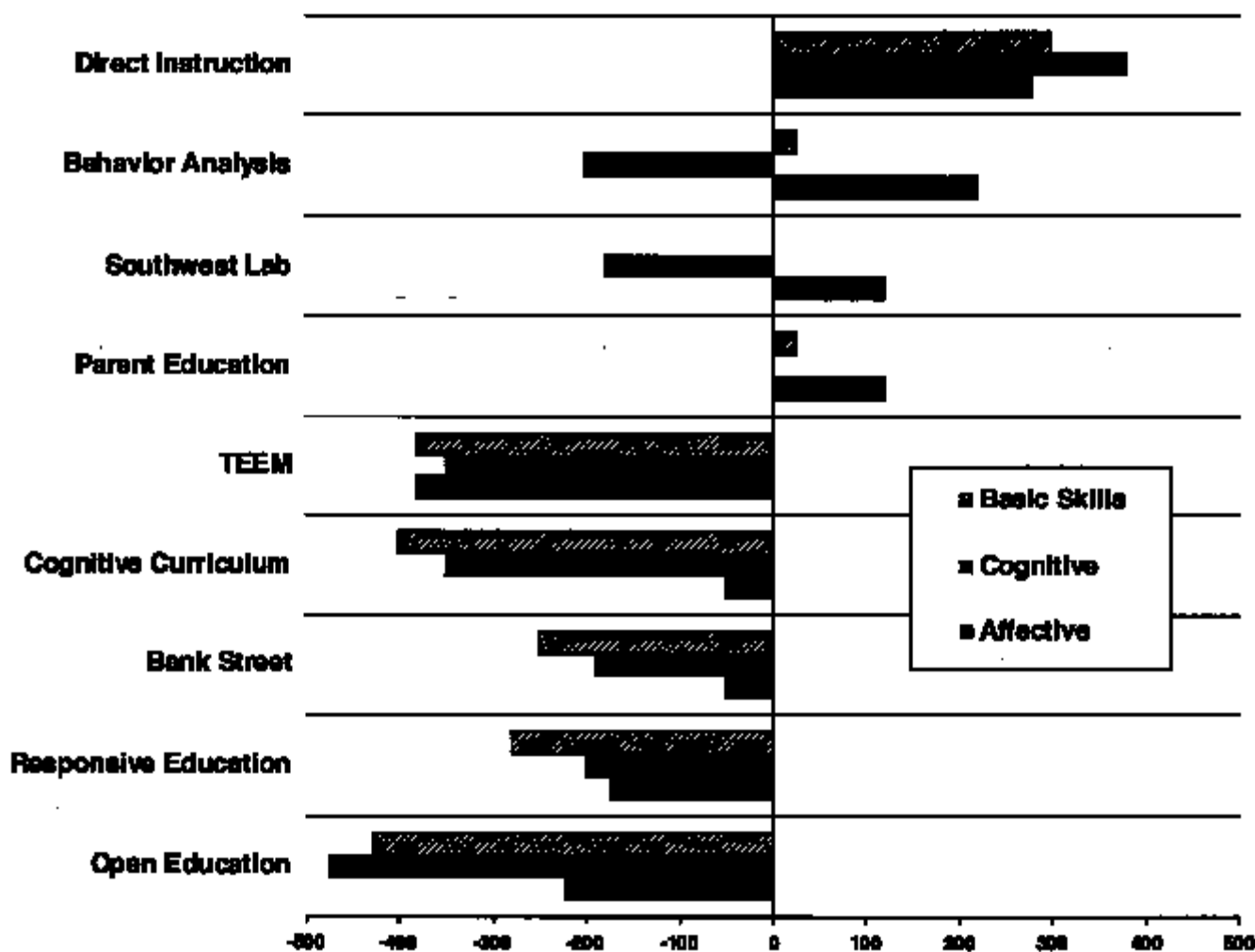


Figure 1: This figure shows the average effects of nine Follow Through models on measures of basic skills (word knowledge, spelling, language, and math computation), cognitive-conceptual skills (reading comprehension, math concepts, and math problem solving) and self-concept. This figure is adapted from Engelmann, S. and Carnine, D. (1982), Theory of Instruction: Principles and applications. New York: Irvington Press.

# The *New* Golden Age

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**The “evidence-based movement” is an international experiment to make better use of research findings in typical service settings.**

**The purpose is to produce greater benefits to children, families, individuals, and society.**



# The *New* Golden Age

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 **The evidence-based program movement**





 **Evidence-based**

 **Program**

 **Movement**

# Evidence-based

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-  **What defines “evidence”**
-  **Two or more high quality research studies using randomized group designs (within subject designs)**
-  **Preferably done by two or more independent research groups**
-  **Preferably summarized in meta-analyses of findings across studies**

# Evidence-based

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 **For the past decade the National Institutes of Health have spent over \$100 billion a year on research to develop evidence-based programs**

 **Other federal agencies (e.g. IES; USAID) and philanthropies add to this total each year**

# Evidence-based

 **In 2008 NIRN documented 32 websites and review articles**

 **Assess the quality of “evidence” by examining research methods**

 **Name some programs as “evidence-based” and others as promising or other**

 **N = 700 deemed to be “evidence-based programs” based on external reviews**

 **Blueprints website N = 11 Model Programs (out of 900 reviewed)**

# The *New* Golden Age

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 **The evidence-based program movement**

 **Evidence-based**


 **Program**

 **Movement**

# Programs

- **What is a “program?”**
- **Clear description of the program**
  - Philosophy, values, principles
  - Inclusion – exclusion criteria
- **Clear essential functions that define the program & linked to outcomes**
- **Operational definitions of essential components (do and say)**
- **Practical performance assessment**
  - Highly correlated (0.70+) with outcomes

# Programs

 About 18% of outcome studies (N=1,200+) assessed the independent variable

 About 7% linked essential components to outcomes






 Few studies measure fidelity

 Fewer yet link fidelity to outcomes

Dane & Schneider, 1998; Durlak & DuPre, 2008

# Programs

 **359 outcome studies in 8 journals**

-  **32% used a treatment manual**
-  **22% supervised treatment agents**
-  **18% measured protocol adherence**
-  **6% did all three**
-  **55% did none of the above**

**Moncher & Prinz (1991)**



# Programs

 **Know a lot about Scientific rigor**

 **Rigor is not used by practitioners to impact the lives of people**

 **Know little about Programs**

 **Programs are used by practitioners to impact the lives of people**

# The *New* Golden Age

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 **The evidence-based program movement**

 **Evidence-based**

 **Program**

 **Movement**

# Movement

## Letting it happen

 Recipients are accountable

## Helping it happen

 Recipients are accountable

**DO IT YOURSELF APPROACHES TO  
MOVING SCIENCE TO SERVICE**

**Based on Hall & Hord (1987); Greenhalgh, Robert, MacFarlane, Bate,  
& Kyriakidou (2004); Fixsen, Blase, Duda, Naoom, & Van Dyke**

**(2010)**

# Movement

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- **Prevention programs in 5,847 schools; 2004-2005 school year**
- **Avg. 9 innovations per school**
- **7.8% were evidence-based**
- **3.5% used with fidelity**

US Department of Education, 2011

# Movement

## Longitudinal Studies of a Variety of Comprehensive School Reforms

### Evidence-base

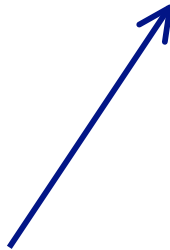
### Actual Supports Years 1-3

### Outcomes Years 4-5

Every Teacher  
Trained



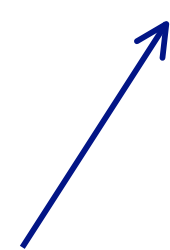
Every Teacher  
Continually  
Supported



Fewer than 50% of  
the teachers  
received some  
training



Fewer than 25% of  
those teachers  
received support



Fewer than 10% of  
the schools used the  
CSR as intended



**Vast majority of  
students did  
not benefit**

# Past Federal Funding

**\$500 million invested in “Family Support Services” 1993-1998**

- **No implementation supports beyond whatever TA was offered by states**
- **No fidelity criteria insisted upon by the developers (e.g. Kinney, Haapala, Booth)**
- **National evaluation = not effective**
  - **Over 25% was spent on in-office interventions with parents or children (< 0 fidelity)**
  - **An implementation failure labeled Homebuilders as an intervention failure**

# Current Federal Funding

- **\$100 billion for innovative programs (USDE)**
- **\$63 billion for maternal health programs (USAID)**
- **\$4 billion for homevisiting programs (ACF)**
- **Little/ no funding for implementation supports for these program initiatives**

# The *New* Golden Age

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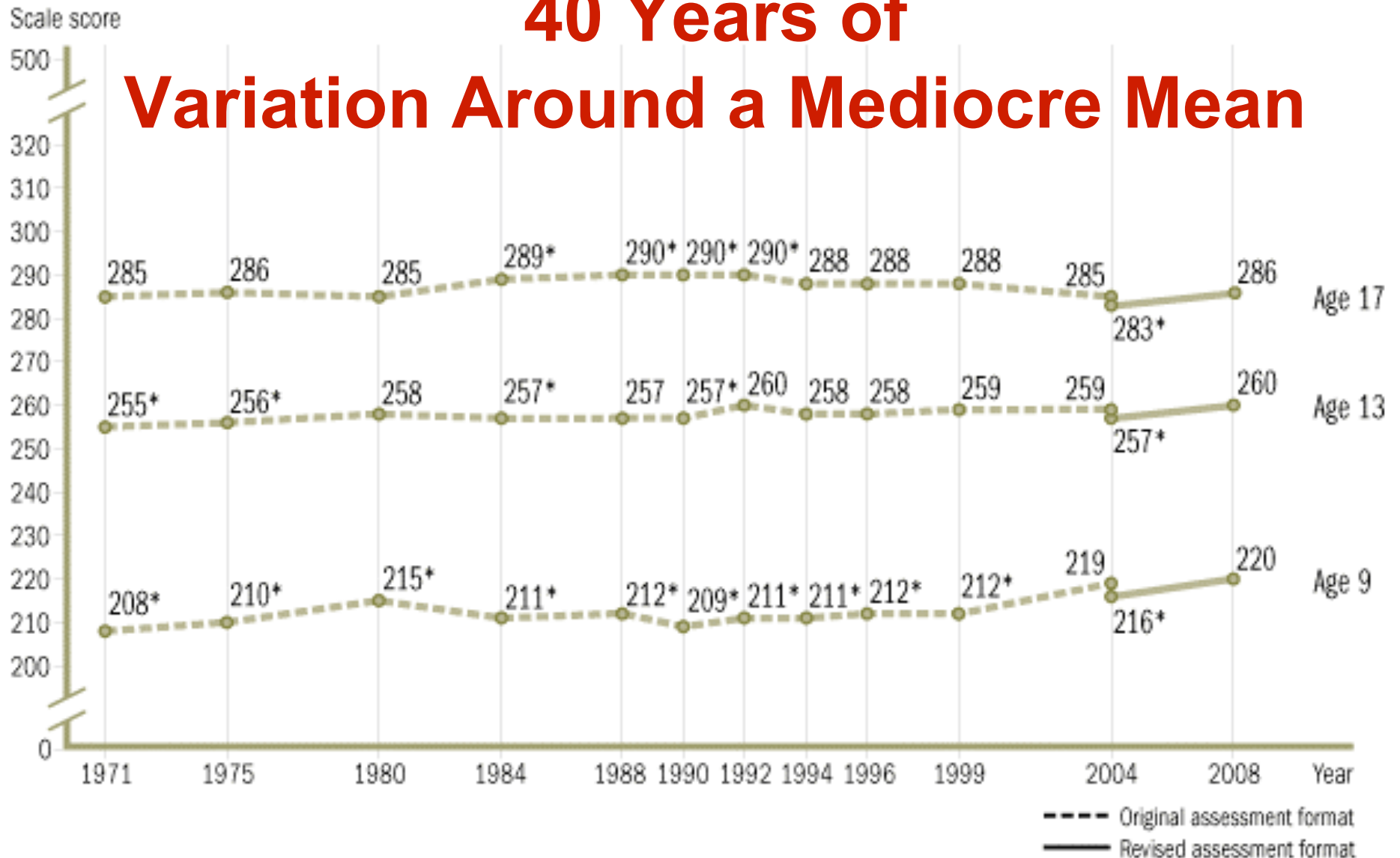
**The “evidence-based movement” is an international experiment to make better use of research findings in typical service settings.**

**The purpose is to produce greater benefits to children, families, individuals, and society.**








# National Assessment of Education Progress (NAEP)

## 40 Years of Variation Around a Mediocre Mean



# Implementation Science



**Best Data Show These Methods, When Used Alone, Are Insufficient:**

-  **Diffusion/ Dissemination of information**
-  **Training**
-  **Passing laws/ mandates/ regulations**
-  **Providing funding/ incentives**
-  **Organization change/ reorganization**

**About 5% to 20% Realize Intended Benefits**

# Movement

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-  **Focusing on methodological rigor to move science to service is not sufficient**
-  **Relying on passive/unplanned means to move science to service is not sufficient**

# The New Golden Age

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## Science “to” Service

A diagram illustrating the transition from science to service. It consists of two white ovals with black outlines. The left oval contains the word "SCIENCE" in blue, uppercase letters. The right oval contains the word "SERVICE" in blue, uppercase letters. Between the two ovals, the word "GAP" is written in orange, uppercase letters.

**SCIENCE**

**GAP**

**SERVICE**

# Complex Problems

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- 🚀 **Human services involve interaction-based sciences and services**
- 🚀 **Inherently more complex than atom-based sciences**
- 🚀 **e.g., atom-based ingredients don't talk back or run away**

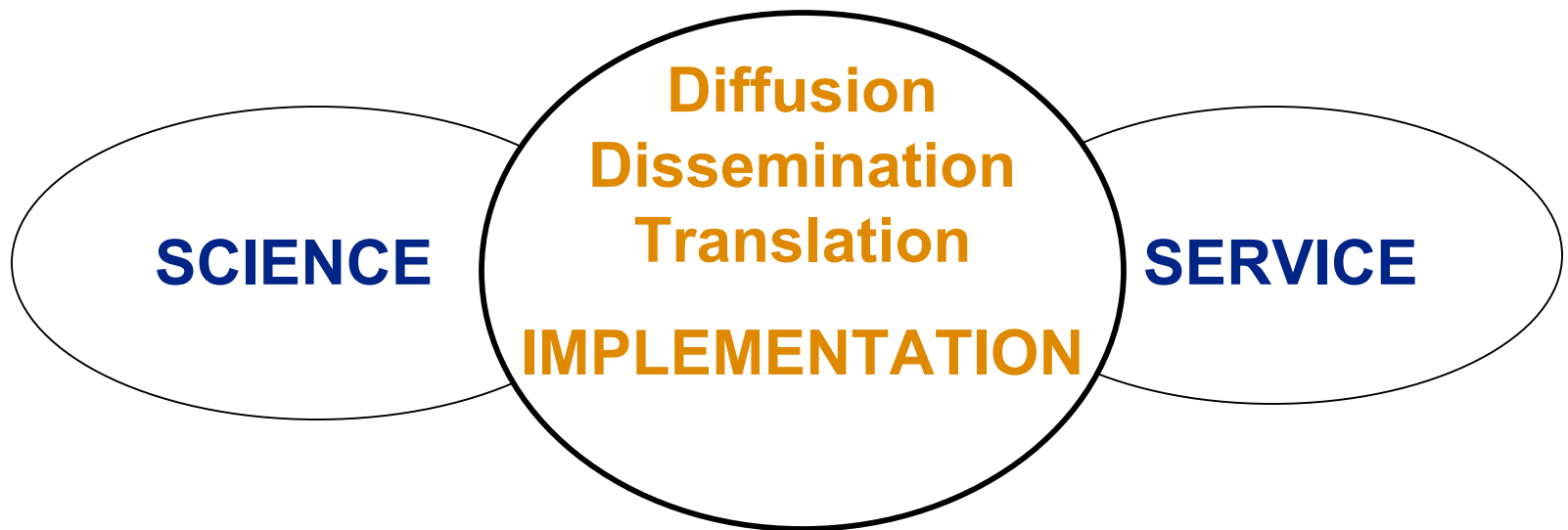
# Practitioners

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- In human services, the **PRACTITIONER IS THE INTERVENTION**
- **Everyone / everything else needs to be aligned to provide effective supports so *all practitioners* can produce desired outcomes for *all recipients of services***

# Implementation

## Science “in” Service



# Implementation

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**“In theory there is no difference  
between theory and practice;  
in practice, there is.”**

***Albert Einstein***



# The Challenge

## Science to Service Gap

 What is known is not what is used to help children, families, individuals, and communities

## Implementation Gap

 What is adopted is not used with fidelity and good outcomes for consumers.

 What is used with fidelity is not sustained for a useful period of time.

 What is used with fidelity is not used on a scale sufficient to impact social problems.

# Implementation

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**“Implementation has never been a national goal per se, but goals that can be reached only by effectively implementing new technology have been inherent in many national programs.”**

**(Hough, 1975)**

# Implementation Science

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**Review and synthesis of the  
implementation evaluation  
literature (1970 – 2004)**

 **Multi-disciplinary**

 **Multi-sector**

 **Multi-national**

# Implementation Science

## Implementation Research: A Synthesis of the Literature



Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

*Download all or part of the monograph at:*

<http://www.fpg.unc.edu/~nirn/resources/publications/Monograph/>

# Formula for Success

Effective intervention

0.99

X

X

Effective implementation

0.01

=

Effective outcomes

.009

Brown & Flynn, 2002  
Clancy, 2006

# Implementation Science

- An intervention is one thing
- Implementation is something else altogether
- Like serum and a syringe
  - Very different evidence bases
  - Each is necessary
  - Neither one is useful without the other

# Implementation Science

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## ACTIVE Implementation Frameworks and Best Practices

# Implementation Science

 Letting it happen and Helping it happen

**MOVE SCIENCE TO SERVICE**  
**WITH EXPERT HELP**

 **Making it happen**

 **Purposeful use of implementation practices and science**

 **Implementation teams are accountable**

**Based on Hall & Hord (1987); Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou (2004); Fixsen, Blase, Duda, Naoom, & Van Dyke (2010)**



# Implementation Team

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➡ **Minimum of three people (four or five preferred) with the expertise to promote effective, efficient, and sustainable implementation, organization change, and system transformation work**

➡ **Tolerate turnover; teams are sustainable even when the players come and go (Higgins, Weiner, & Young, 2012; Klest & Patras, 2011)**

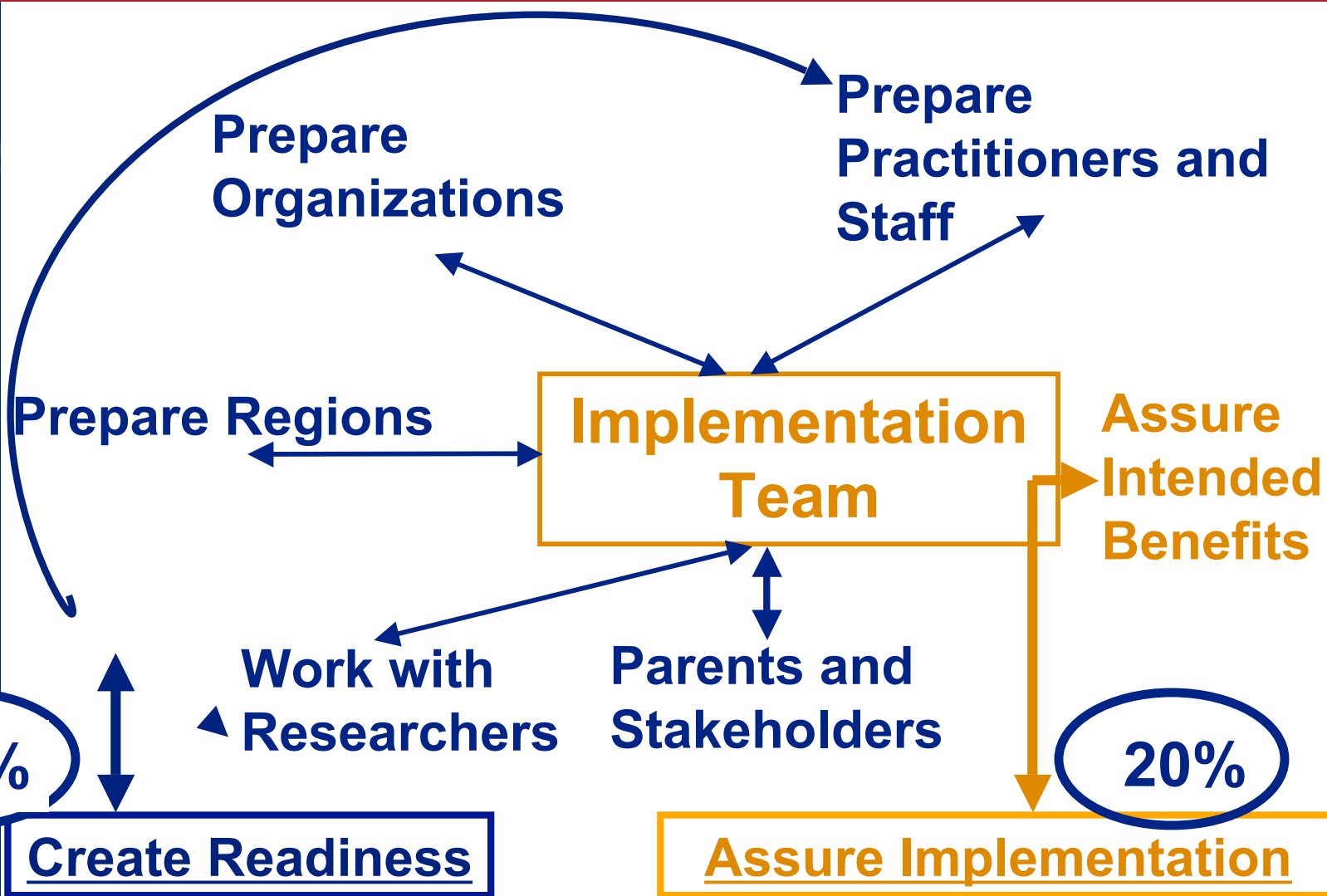
# Implementation Team

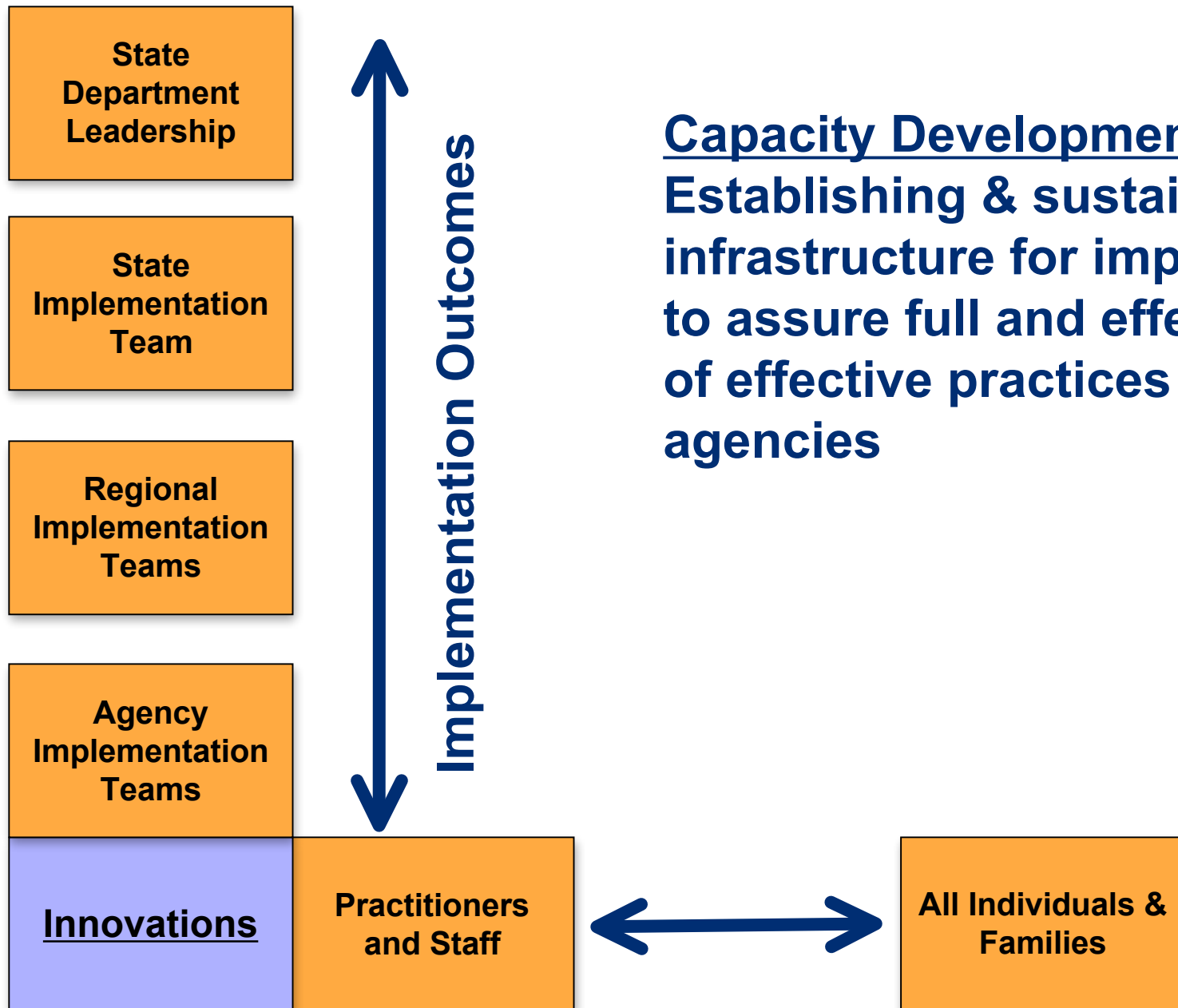
## Simultaneous, Multi-Level Interventions

Implementation Team

- ↔ Practitioner/Staff Competence
- ↔ Organization Supports
- ↔ Management (leadership, policy)
- ↔ Administration (HR, structure)
- ↔ Supervision (nature, content)
- ↔ Regional Authority Supports
- ↔ State and Community Supports

# Implementation Team





**Capacity Development:**  
Establishing & sustaining an infrastructure for implementation to assure full and effective uses of effective practices in all agencies

**Innovation outcomes result from adult interactions with children, families, & individuals**

# Implementation Team

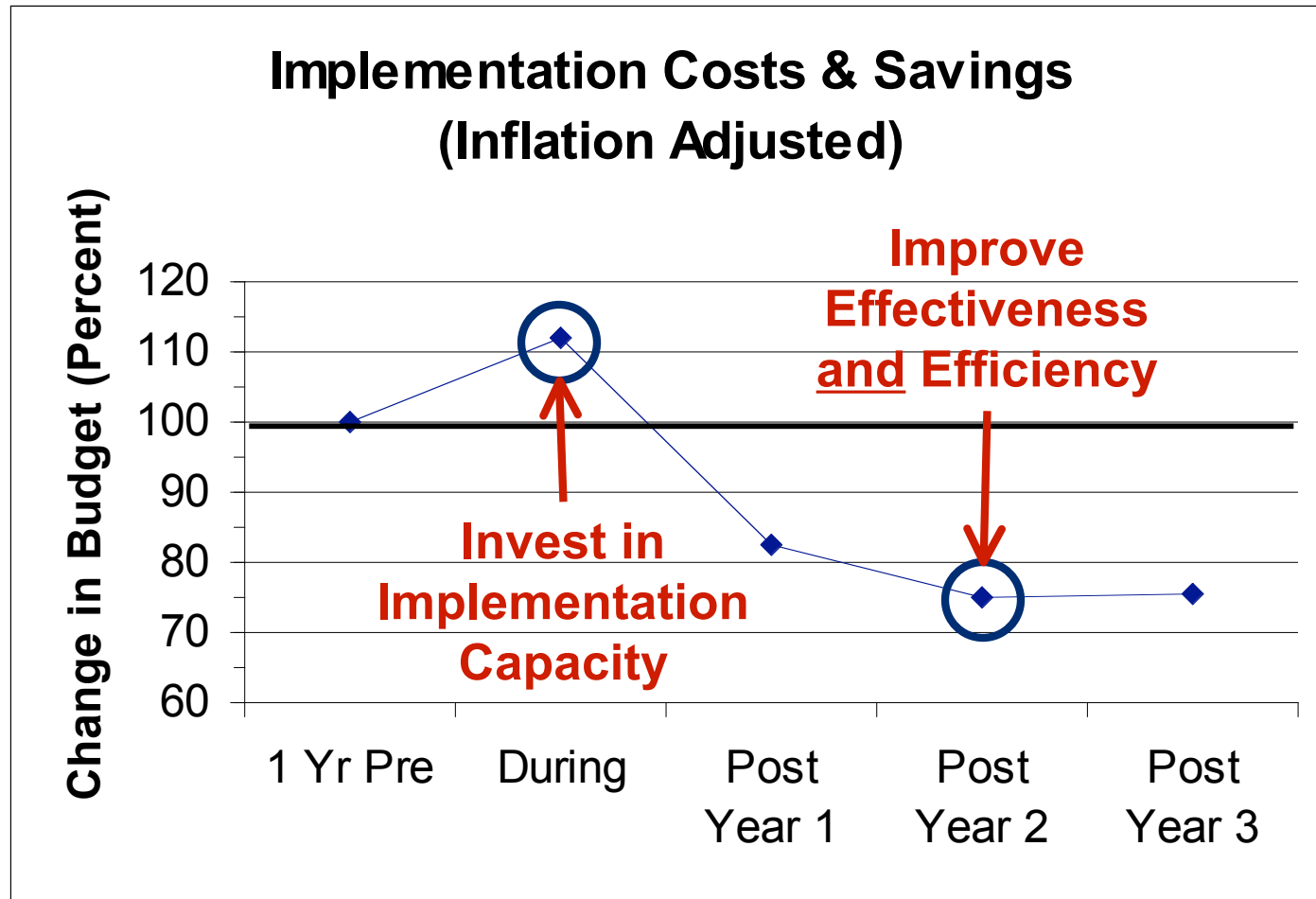
		IMPLEMENTATION	
		Impl. Team	NO Impl. Team
INTERVENTION	Effective	80%, 3 Yrs	14%, 17 Yrs
		Effective use of Implementation Science & Practice	Letting it Happen Helping it Happen

Fixsen, Blase,  
Timbers, & Wolf, 2001

Balas & Boren, 2000

**Substantial Return on Investment**

# Costs and Savings



# Making it Happen

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## Implementation Drivers

 **Common features of successful supports to help make full and effective uses of a wide variety of innovations**

**Implementation Drivers**

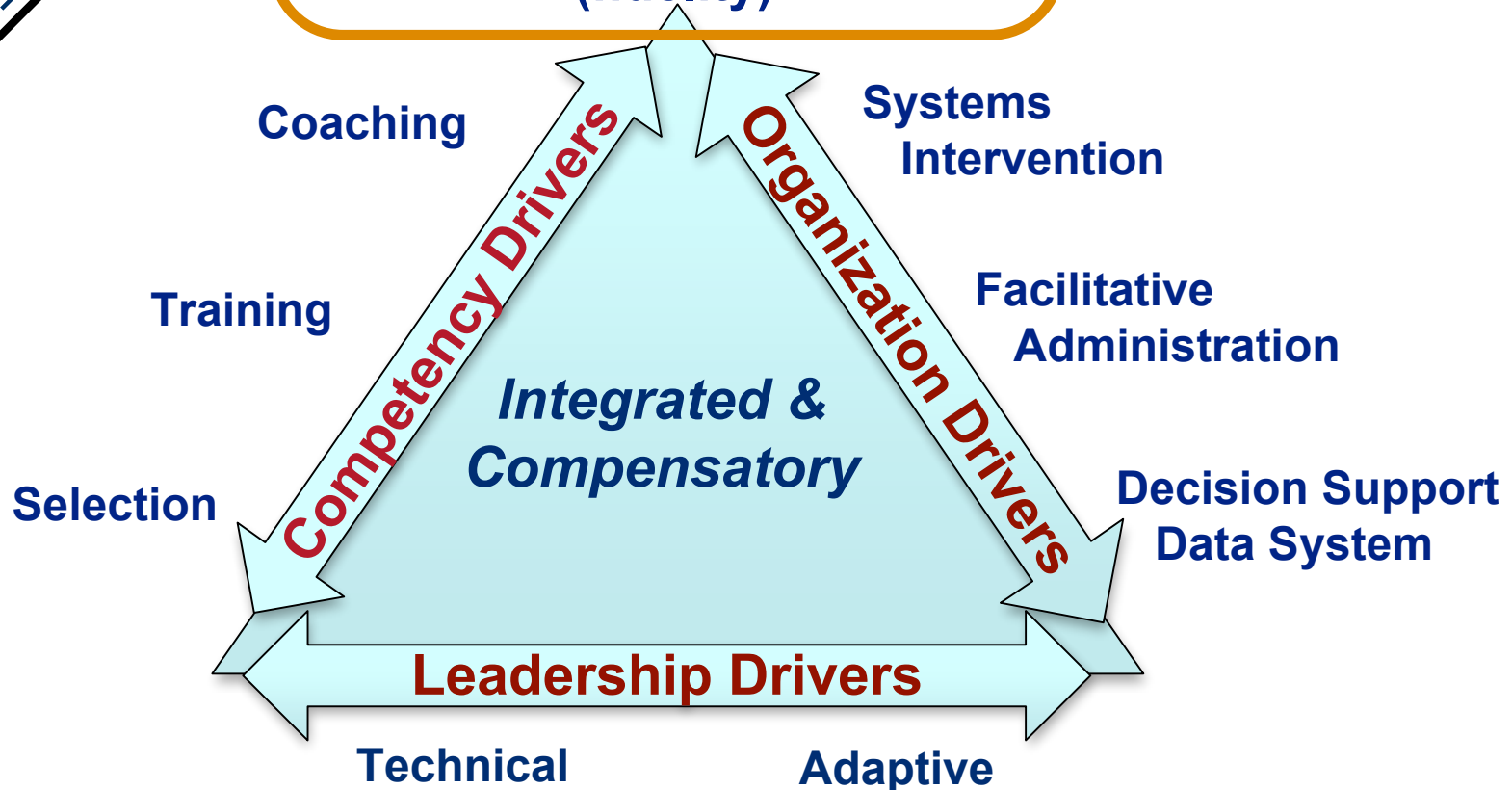
**Reliable Benefits**

**Consistent uses of Innovations**



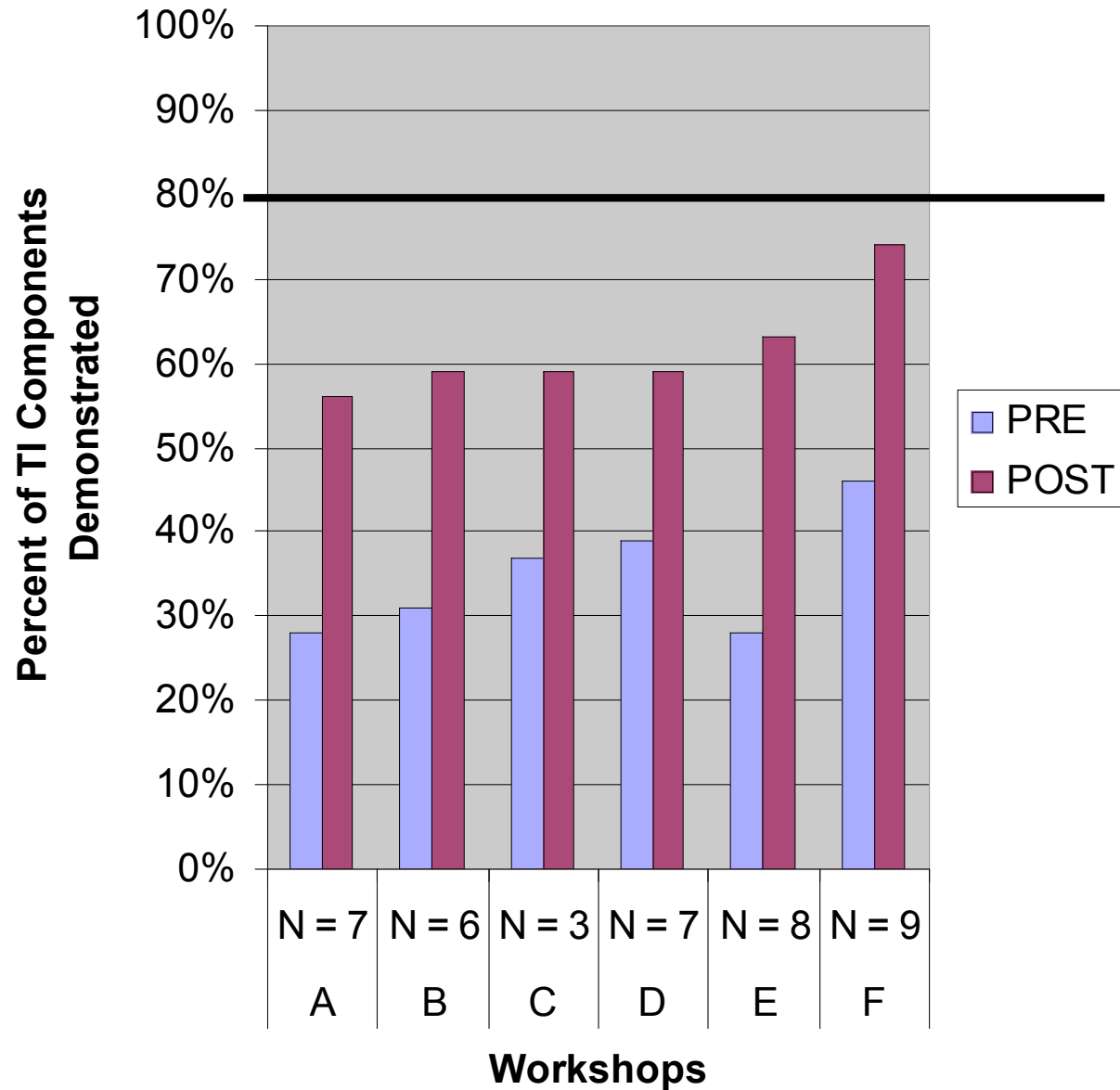
**Performance Assessment (fidelity)**

**Interventions meet Implementation**





# Staff Training



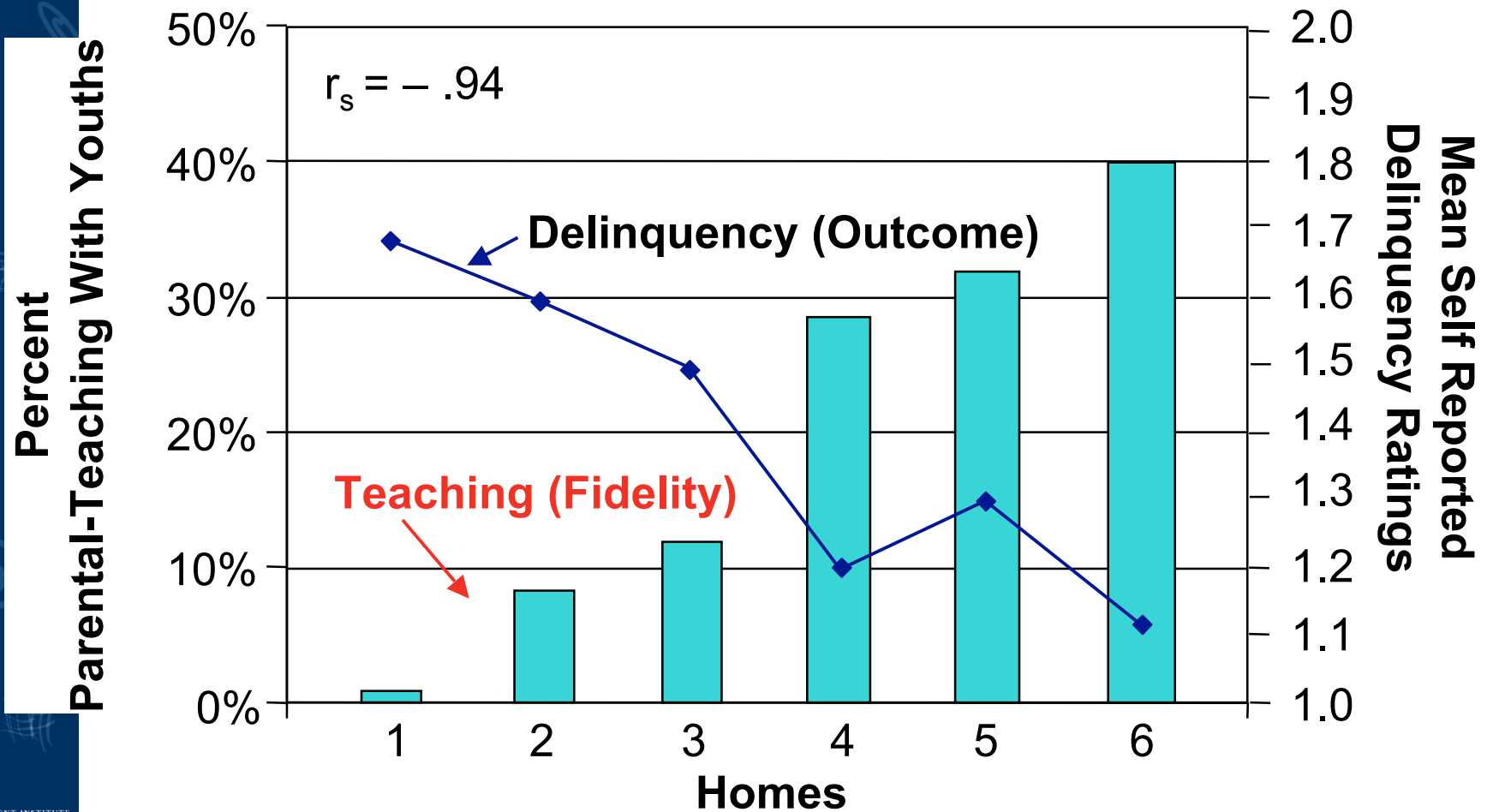
**Collins, S. R.,  
Brooks, L.E.,  
Daly, D.L.,  
Fixsen, D.L.,  
Maloney, D.M., &  
Blase, K. A.  
(1976)**

# Training, Coaching, Performance

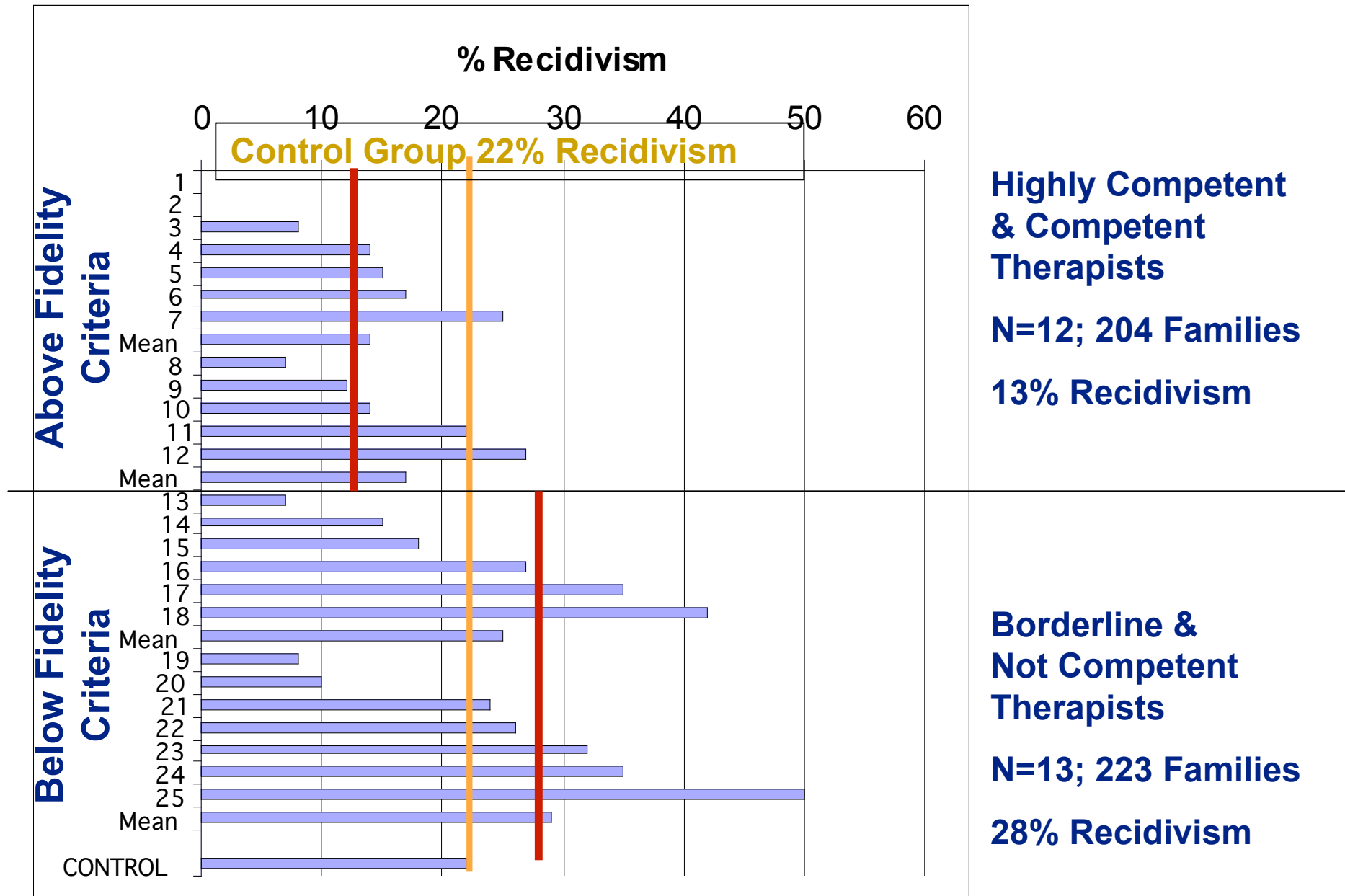
	OUTCOMES (% of Participants who Demonstrate Knowledge, Demonstrate new Skills in a Training Setting, and Use new Skills in the Classroom)		
	Knowledge	Skill Demonstration	Use in the Classroom
TRAINING COMPONENTS			
Theory and Discussion	10%	5%	0%
..+Demonstration in Training	30%	20%	0%
...+ Practice & Feedback in Training	60%	60%	5%
...+ Coaching in Classroom	95%	95%	95%

# Teaching-Family Model

Bedlington, et al. (1988)



# Functional Family Therapists (WSIPP)



# Organization Supports

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N = 100 county MH Clinics

🚩 **Best of the MH Clinics (10%)**

🏆 **Sustain EBPs for 50 months**

🚩 **Rest of the MH Clinics (90%)**

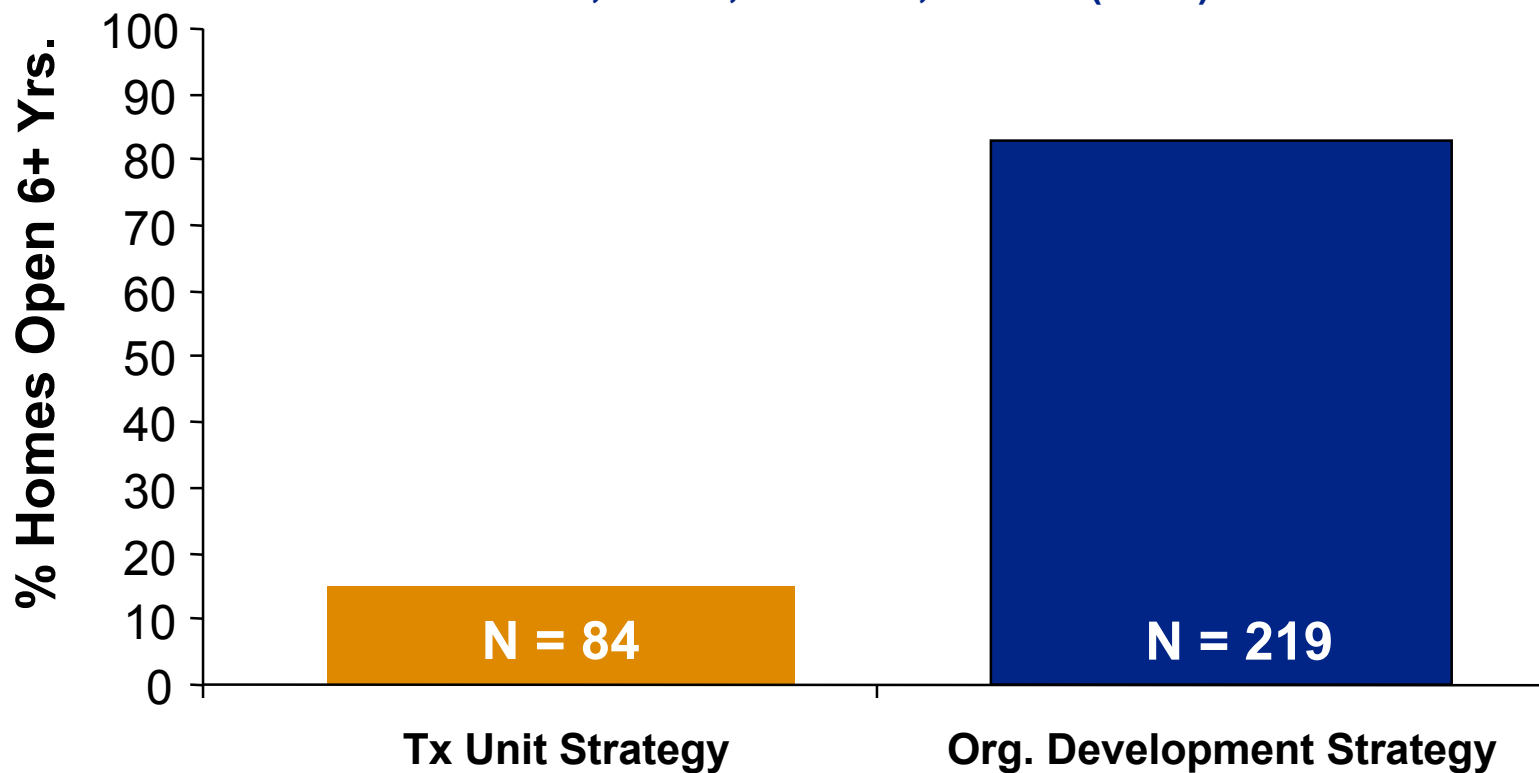
🏆 **Sustain EBPs for 24 months**

**Organization supports matter!**

Glisson et al., 2008

# Organization Supports

Fixsen, Blase, Timbers, & Wolf (2001)



# Stages of Implementation

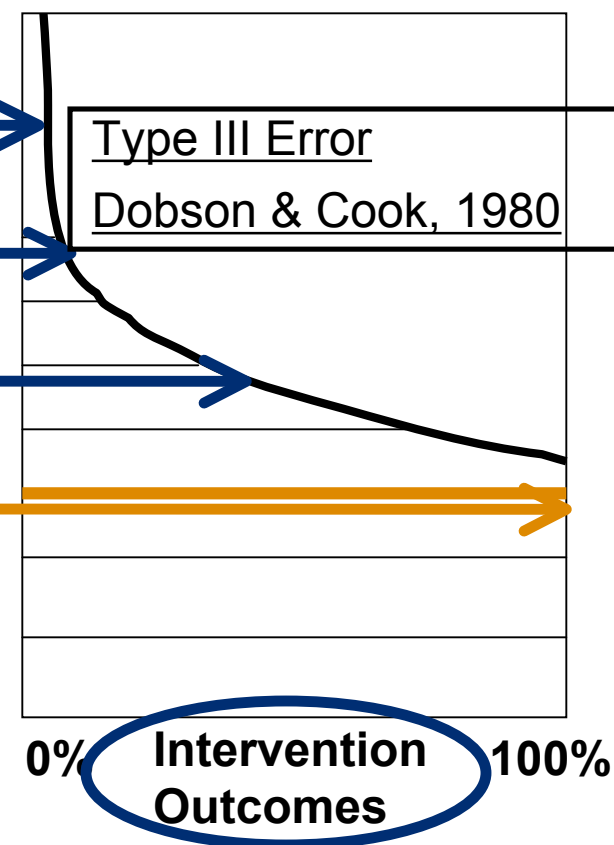
Implementation occurs in stages:

➤ Exploration

➤ Installation

➤ Initial Implementation

➤ Full Implementation



# Data from Developers & Implementers

- |   |  |
|---|--|
|  <b>Assertive Community Treatment</b>                              |  <b>Multisystemic Treatment</b>   |
|  <b>Collaborative for Academic, Social, and Emotional Learning</b> |  <b>Nurse-Family Partnership</b>  |
|  <b>Dialectical Behavioral Therapy</b>                             |  <b>Nutrition Model Program for Elderly</b>                                 |
|  <b>Functional Family Therapy</b>                                  |  <b>Positive Behavior Support</b>   |
|  <b>Incredible Years</b>   |  <b>School-based mental health</b>  |
|  <b>Life Skills</b>  |  <b>Supported Employment</b>  |
|  <b>Multidimensional Treatment Foster Care</b>                   |  <b>Federation of Families for Children's Mental Health</b>                |
|   |  <b>National Alliance of Multicultural Behavioral Health Associations</b> |

Blase et al., 2005



**N = 579 items**

**(Concept Mapping; Nominal  
Group Process; Interviews)**

## **Implementation Stages**

### **Impl Team Activities**

**Explore**

**Install**

**Init Impl**

**Assessment**

**97%**

**1%**

**2%**

**Planning**

**20%**

**32%**

**48%**

**Selection/Training**

**3%**

**31%**

**66%**

**Coaching**

**8%**

**6%**

**86%**

**Evaluation**

**3%**

**23%**

**73%**

**Org Development**

**11%**

**16%**

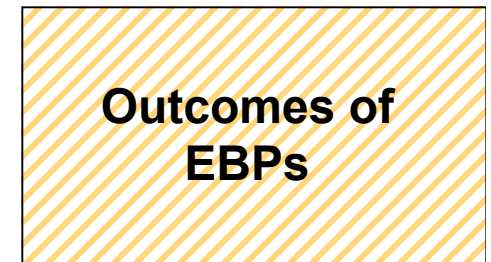
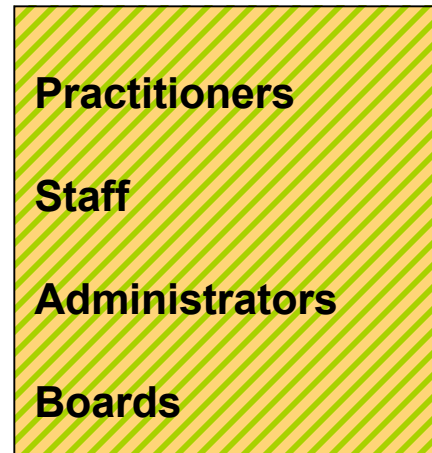
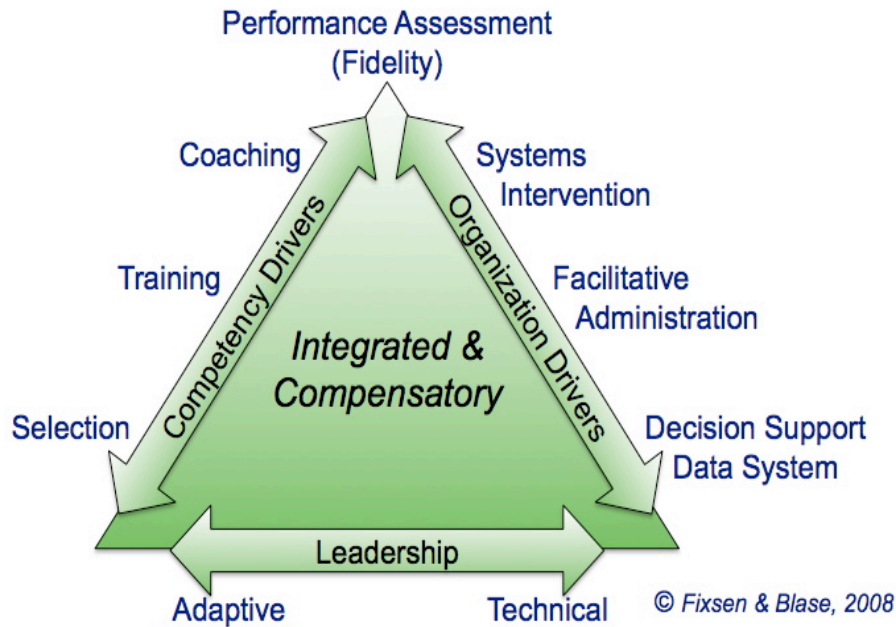
**73%**

**System Intervention**

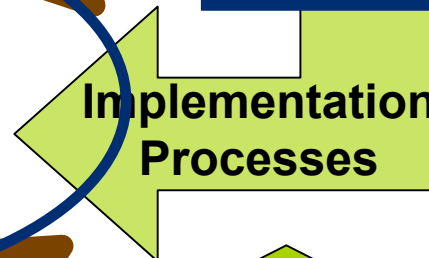
**37%**

**30%**

**33%**



Effective Intervention Practices



Exploration  
Installation  
Initial Implementation  
Full Implementation

# Systems

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**"All organizations are designed, intentionally or unwittingly, to achieve precisely the results they get."**





*...R. Spencer Darling*

**Systems trump programs!**

*...Patrick McCarthy, Annie E. Casey*

# System Supports

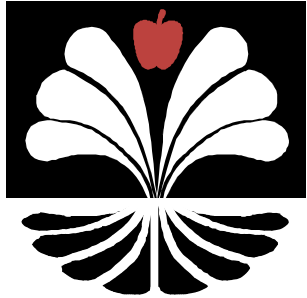
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-  **Innovative practices do not fare well in existing organizational structures and systems**
-  **Organizational and system changes are essential to successful use of innovations**
  -  **Expect it**
  -  **Plan for it**

# The Challenge

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**Systems are fragmented and are characterized by highly variable, often ineffective, and sometimes harmful services to consumers**



# State Implementation & Scaling-up of Evidence-based Practices

**Dean Fixsen and Karen Blase**

University of North Carolina at Chapel Hill

**Rob Horner and George Sugai**

University of Oregon; University of Connecticut

**Barbara Sims and Michelle Duda**

University of North Carolina at Chapel Hill



**UNC**

FPG CHILD DEVELOPMENT INSTITUTE



U.S. Office of Special  
Education Programs

# System Supports

 **Supply side: Effective programs go where they are most welcome**

 **Let it happen; Help it happen**

 **Islands of excellence**

 **Demand side: Effective programs go where they are most needed**

 **Make it happen**

 **A sea of change**

# System Supports

**Existing System**



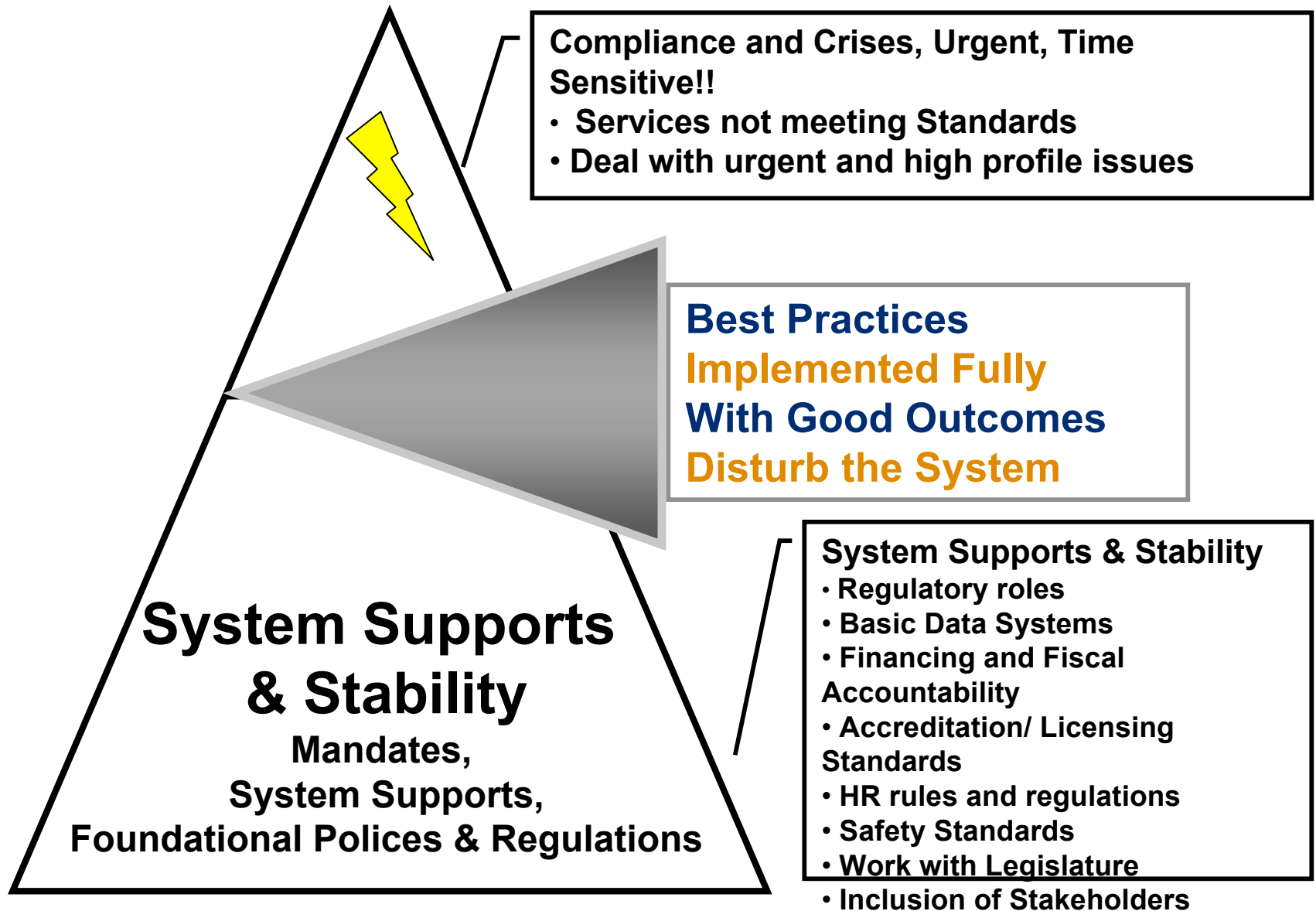
**Effective Innovations  
Are Changed to  
Fit The System**

**Existing System Is  
Changed To Support  
The Effectiveness Of  
The Innovation**



**Effective Innovation**

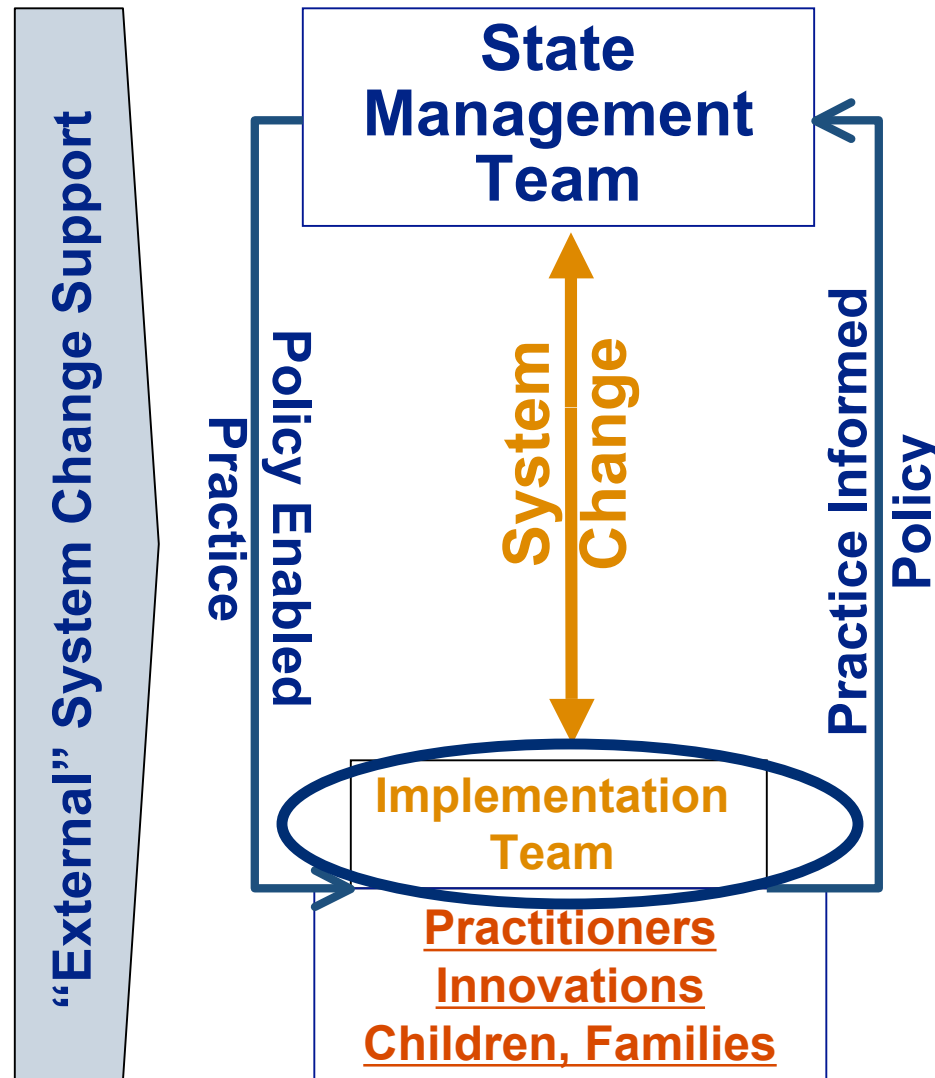




## ***Leadership Responsibilities and Leverage Points***

Thanks to Tom Bellamy

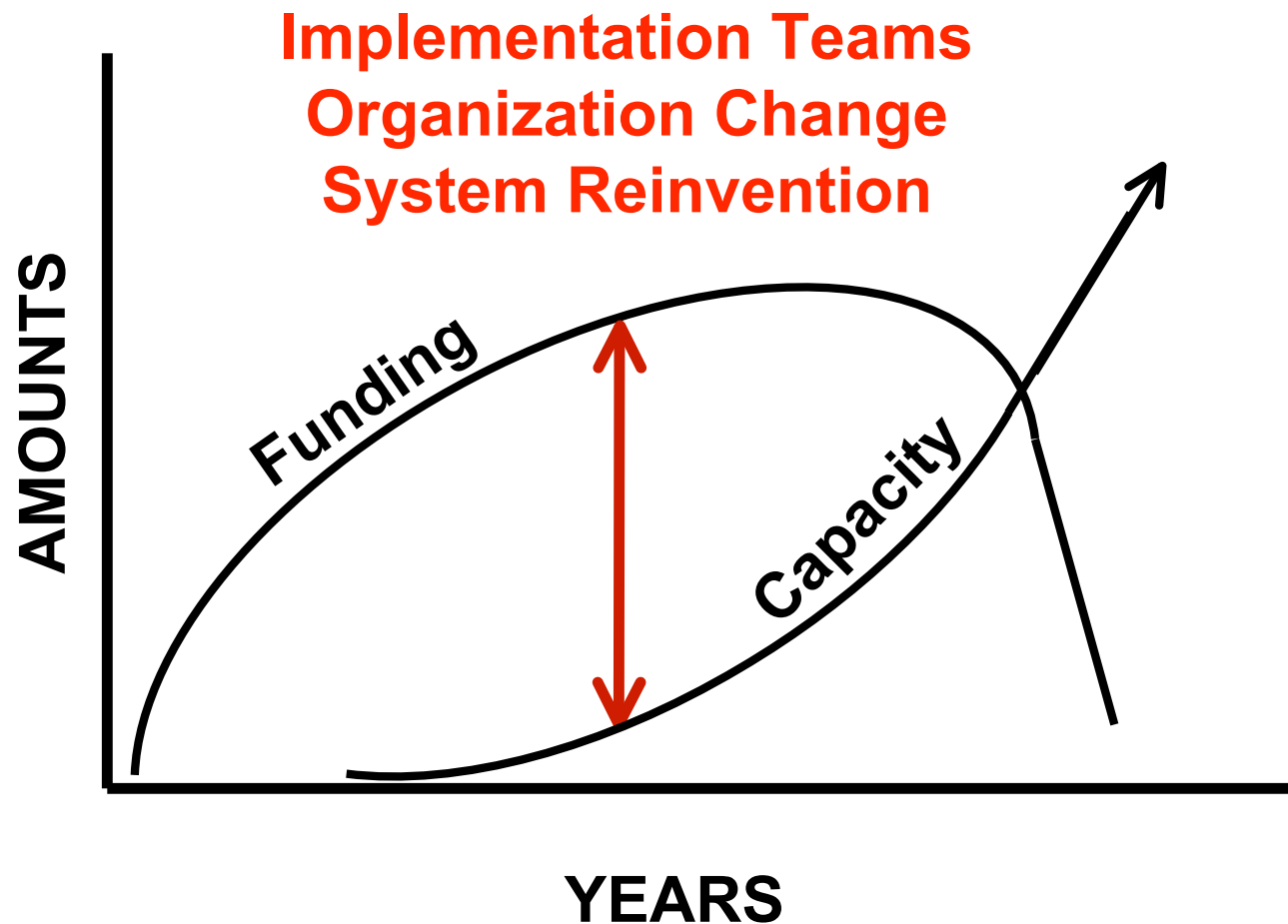
# System Reinvention



## Adaptive Challenges

- Duplication
- Fragmentation
- Hiring criteria
- Salaries
- Credentialing
- Licensing
- Time/ scheduling
- Union contracts
- RFP methods
- Federal/ State laws

# Capacity Building



# Challenges

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- **Children, families, and individuals cannot benefit from services they do not experience**
- **For the EBP Movement to be successful, we must implement evidence-based programs and sustain/ improve their benefits on a socially significant scale**



Global  
Implementation  
Conference

*The Science and Practice of Using Science in Practice*

**2013**

[www.implementationconference.org](http://www.implementationconference.org)



# For More Information

**Karen A. Blase, Ph.D.**

👉 **919-966-9050**

👉 [karen.blase@unc.edu](mailto:karen.blase@unc.edu)

**Dean L. Fixsen, Ph.D.**

👉 **919-966-3892**

👉 [dean.fixsen@unc.edu](mailto:dean.fixsen@unc.edu)



**Frank Porter Graham Child Development Institute**

**University of North Carolina**

**Chapel Hill, NC**

<http://nirn.fpg.unc.edu/>

[www.scalingup.org](http://www.scalingup.org)

[www.implementationconference.org](http://www.implementationconference.org)

# Implementation Science

## *Implementation Research: A Synthesis of the Literature*



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[HTTP://NIRN.FPG.UNC.EDU](http://NIRN.FPG.UNC.EDU)



# Stay Connected!

## [www.scalingup.org](http://www.scalingup.org)



For more on Implementation Science

<http://nirn.fpg.unc.edu>

[www.implementationconference.org](http://www.implementationconference.org)


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# Thank You for your Support

 **Annie E. Casey Foundation**  
(EBPs and cultural competence)

 **William T. Grant Foundation**  
(implementation literature review)

 **Substance Abuse and Mental Health Services Administration**  
(implementation strategies grants; national implementation awards)

 **Centers for Disease Control & Prevention**  
(implementation research)

 **National Institute of Mental Health** (research and training grants)

 **Juvenile Justice and Delinquency Prevention**  
(program development and evaluation grants)

 **Office of Special Education Programs** (Scaling up Capacity Development Center)

 **Administration for Children and Families** (Child Welfare Leadership; Capacity Development)

 **Duke Endowment** (Child Welfare Reform)