

The Growing Demand for Rapid-Cycle Assessment:

What Works Best and When?

**Center for Improving Research Evidence Forum
Washington, DC**

May 21, 2014

Ann Person • Randy Brown • Andy Feldman • Naomi Goldstein
Renee Mentnech • Angela Rachidi • Peter Schochet

Welcome



Moderator

Ann Person, CIRE Director

About CIRE

- Offers broad expertise in designing and using an **array of scientific research and evaluation approaches** in diverse settings
- Builds on more than 40 years of experience conducting a wide range of rigorous applied research using cutting-edge **qualitative and quantitative methods**
- CIRE is strongly positioned to bridge the gap between **policy research and practice**

CIRE Mission

- **Build capacity to understand and use evidence**
- **Plan rigorous and relevant evaluations**
- **Improve research methods and standards**

Today's Agenda

- **Andy Feldman (OMB): The evidence and innovation agenda**
- **Randy Brown: Rapid cycle feedback for program improvement**
- **Peter Schochet: Opportunistic experiments for program impacts**
- **Angela Rachidi (NYC): State and local goals and application**
- **Renee Mentnech (CMS): Federal goals and application**
- **Naomi Goldstein (ACF): Federal goals and application**
- **Panel discussion**
- **Audience question & answer**

Today's Presenters



Andy Feldman
Office of Management and Budget (OMB)



Naomi Goldstein
Administration for Children and Families,
U.S. Department of Health and Human
Services (HHS)



Randall Brown
Mathematica Policy Research

Today's Presenters (cont.)



Peter Schochet
Mathematica Policy Research



Angela Rachidi
New York City Human Resources Administration



Renee Mentnech
Center for Medicare & Medicaid Innovation,
Centers for Medicare & Medicaid Services



Strengthening Federal Program Results through Evidence and Innovation, including Rapid-Cycle Assessment

Andy Feldman

May 2014

Themes of the Administration's evidence agenda

- Strengthening agencies' ability to continually improve program performance by
 - **applying existing evidence** of what works
 - **generating new knowledge**
 - **using experimentation** and innovation to test new approaches to program delivery

OMB M-13-17: “Next Steps in the Evidence and Innovation Agenda”

- Encourage agency proposals to:
 - ✓ Harness data to improve agency results
 - ✓ Use high-quality, low-cost evaluation and rapid, iterative experimentation
 - ✓ Use innovative, outcome-focused grant designs
 - ✓ Strengthen agency capacity to use evidence
- Launched workshop series on these topics

M-13-17 on rapid, iterative experimentation

- Encourages agency proposals to:
 - build evaluation into **ongoing program changes**;
 - use existing **administrative data** to undertake rigorous low-cost evaluation; and
 - draw on private sector approaches that use frequent, low-cost **experimentation** to test strategies to improve results and ROI.

Related government efforts

- Social and Behavioral Science Team
- OMB Memo 14-06: “Guidance for Providing and Using Administrative Data for Statistical Purposes”
- Initiatives by leading agencies

Related external efforts

- Examples from private industry: leading tech companies are continual experimenters
- UK Behavioral Insights Team
- JPAL North America
- Paul Decker's Presidential Address at APPAM

Two challenges in the public sector

(And why rapid assessment and experimentation can help)

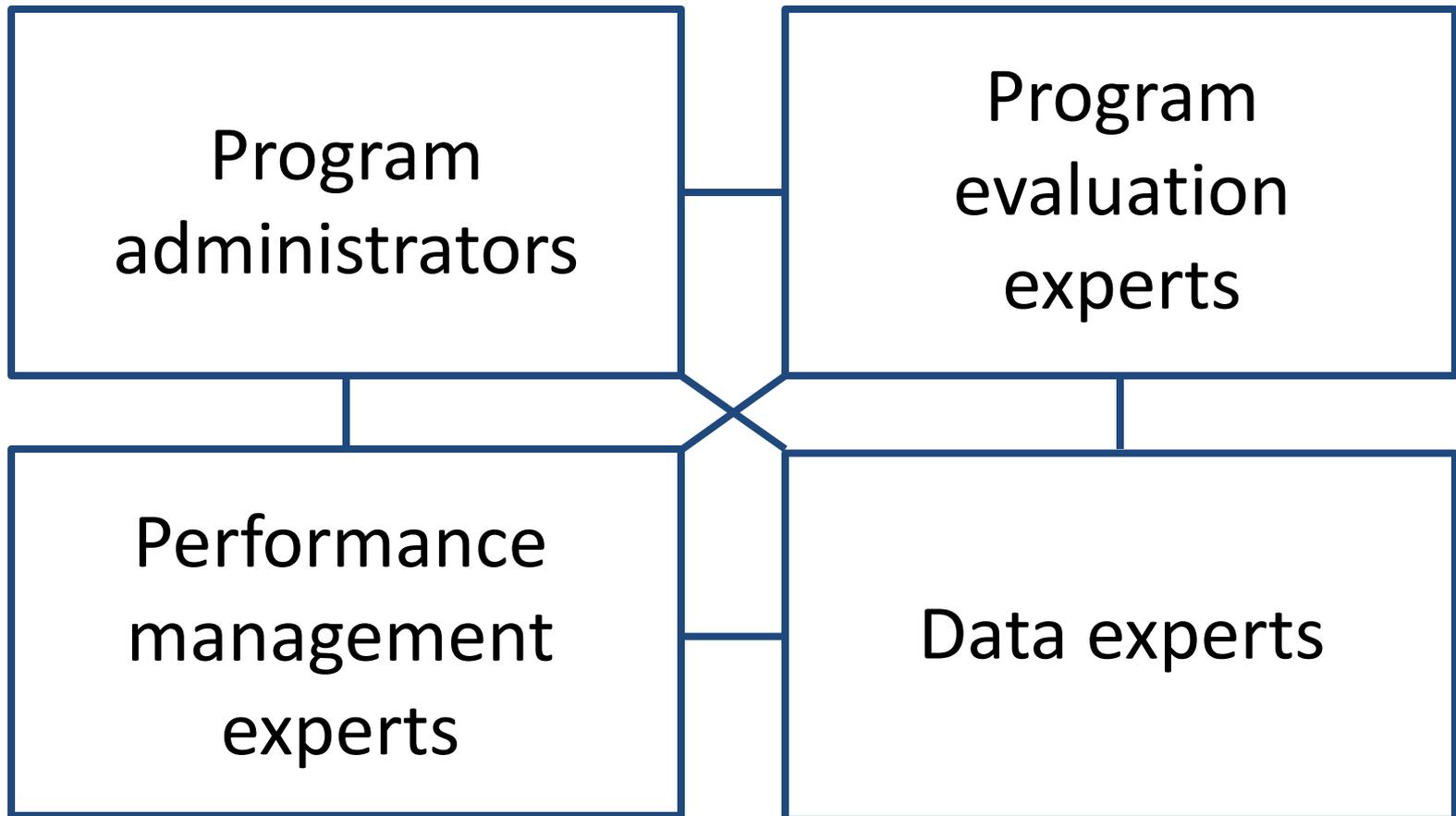
Challenge #1

- Too often, agencies and programs see program evaluation as:
 - Not relevant to ongoing program operations (too slow and backward looking)
 - Threatening
 - Too costly

Challenge #2

- Many government processes are set up and standardized, often with an accountability focus.
- However, feedback loops for learning and improvement are often missing.

What it takes: More rapid assessment and experimentation requires *bridging silos*



Understanding strengths & weaknesses of different analytical approaches

Example: Performance management vs. program evaluation

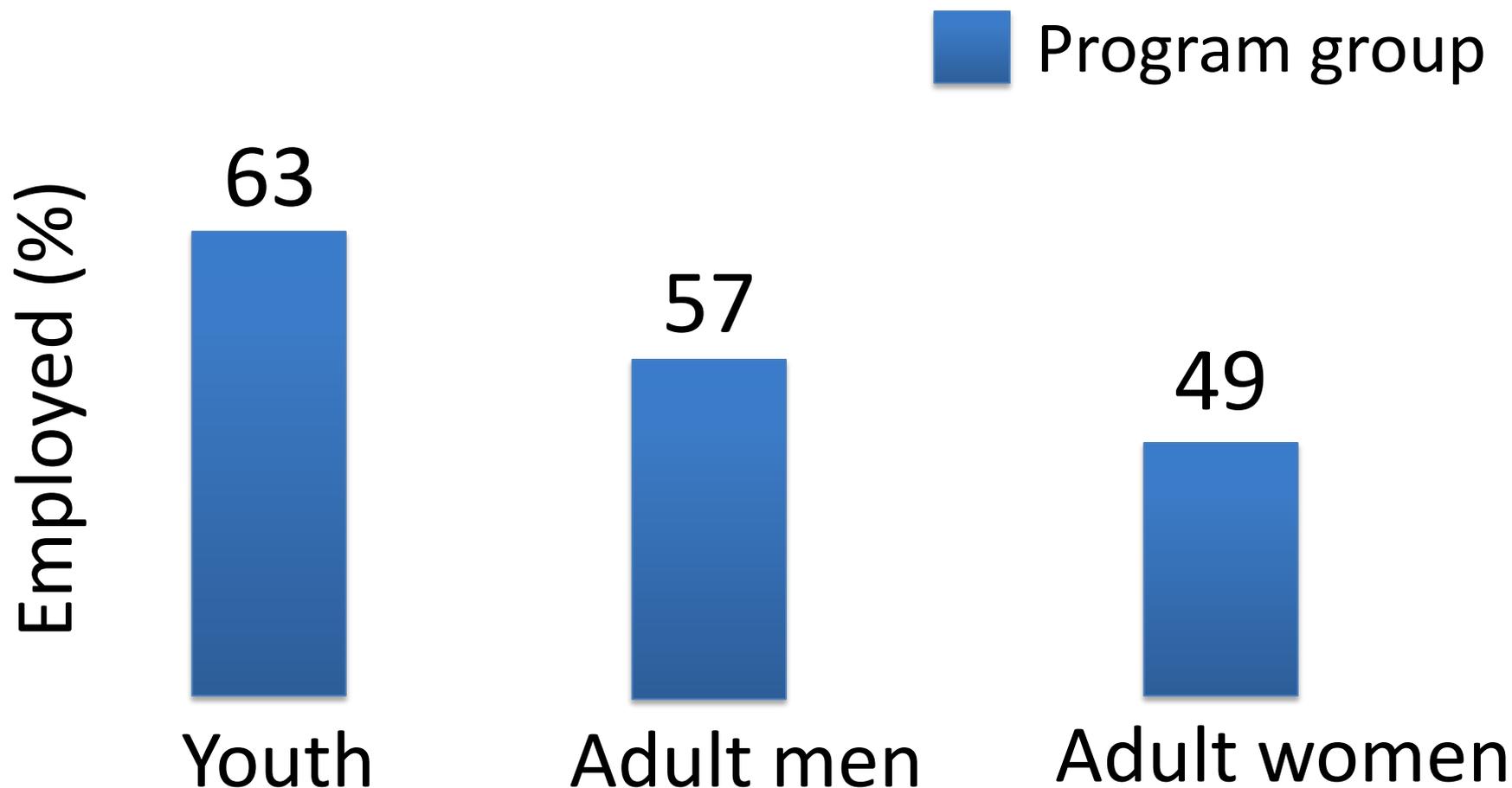
Performance management



HUDStat

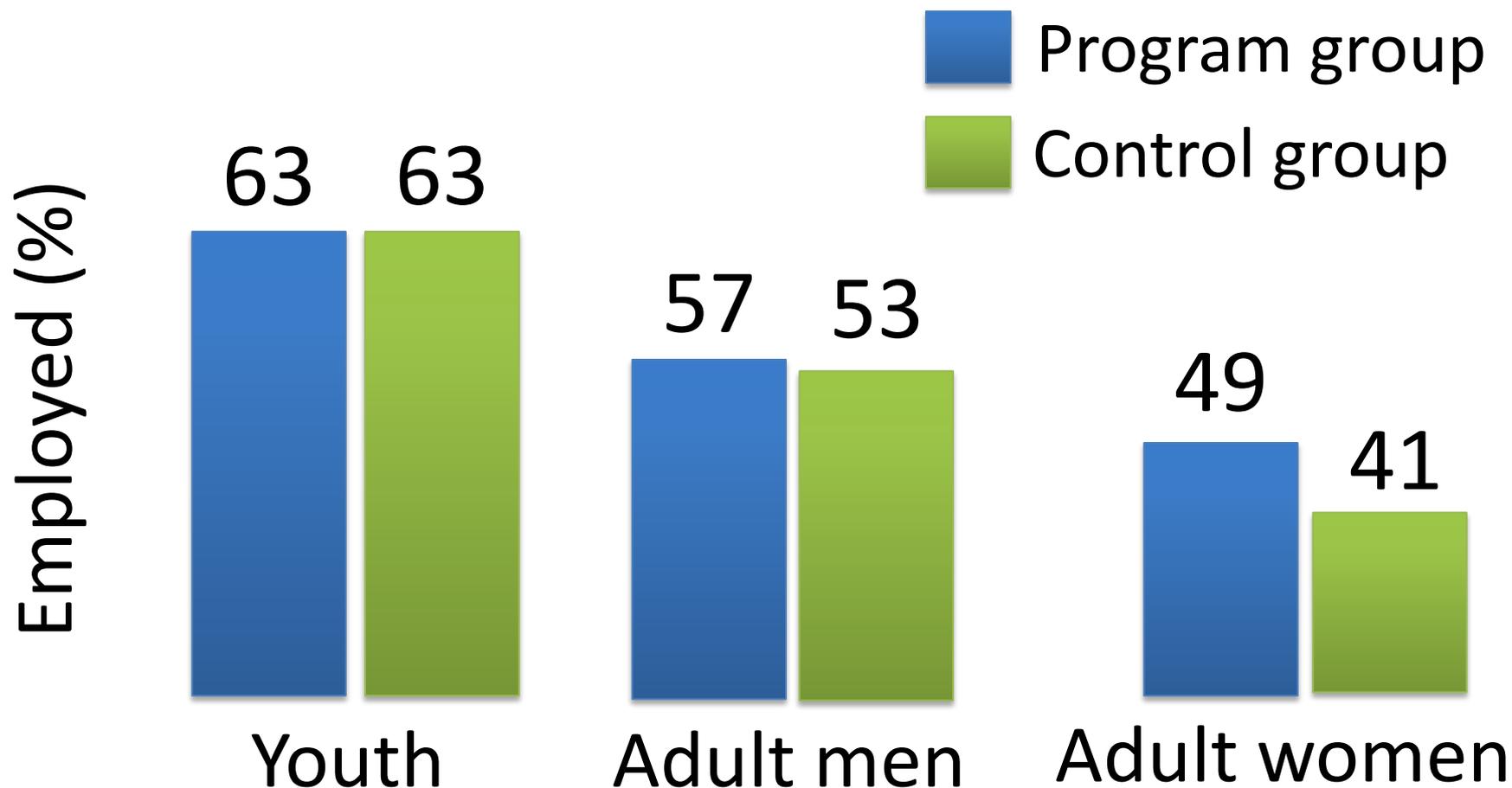
Program evaluation

Supported Work Demonstration



Program evaluation

Supported Work Demonstration



Summary / Conclusion

- To significantly expand the rate at which we build and use evidence, we need to:
 - Increase the volume of evidence creation
 - Lower the cost
 - Draw on existing resources (e.g. in-house data)
- Two important tools to do that:
 - Rapid evaluation and assessment
 - Opportunistic experiments
- Requires bridging silos within agencies and being thoughtful about strengths & weaknesses of different analytical approaches.

What Is Rapid Cycle Feedback for Program Improvement?

**CIRE Forum on Rapid Cycle Assessment
Washington, DC**

May 21, 2014

Randall Brown, Director of Health Research

Provides Ongoing Feedback on Performance

- Helps program operators and sponsors monitor progress
- Intent is to learn and improve, not just thumbs up or down
- Done centrally through monitoring, evaluation, and TA contracts
- Very different from previous “aloof evaluator” approach
- Includes qualitative and quantitative feedback

Pros and Cons of Rapid Cycle

- **Advantages**

- Can identify implementation barriers or fidelity to program
- Improves chances of successful intervention
- Shortens learning time; reduces cost of sequential studies

- **Disadvantages**

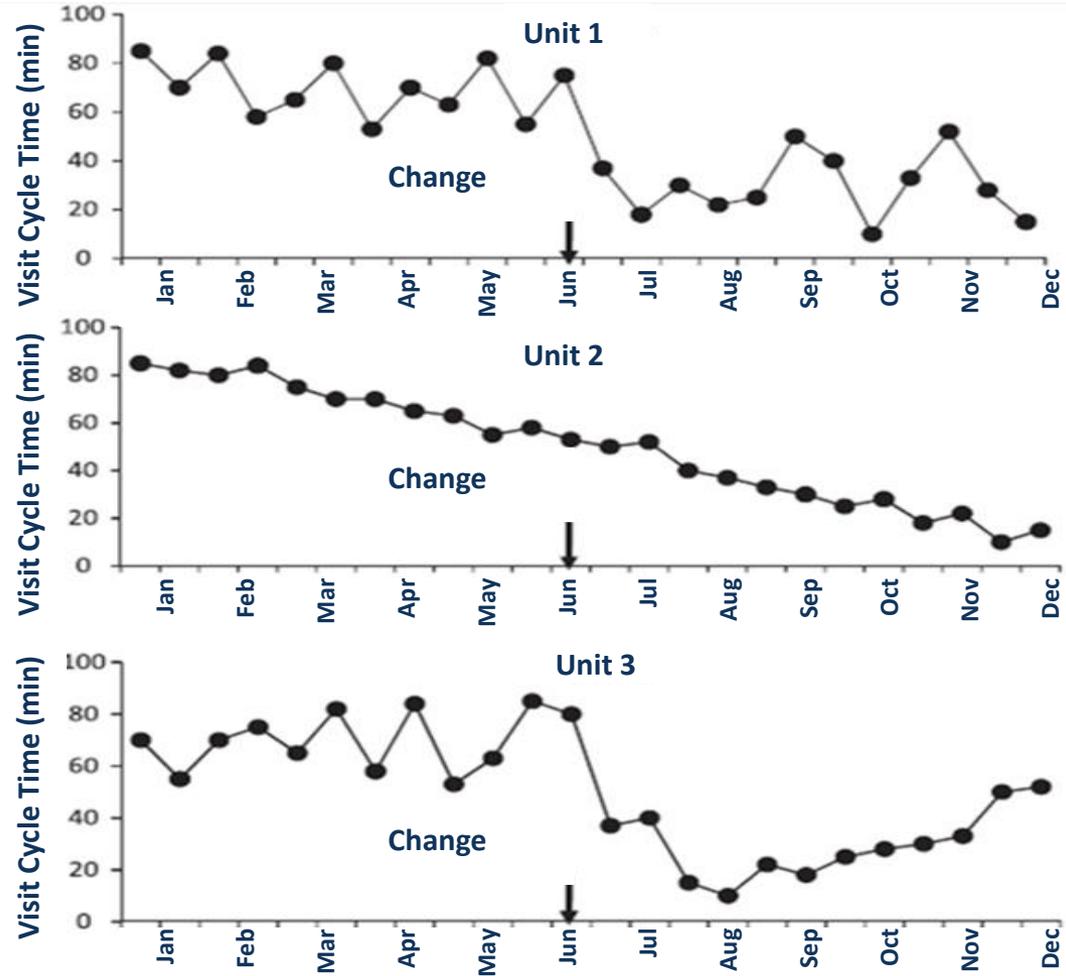
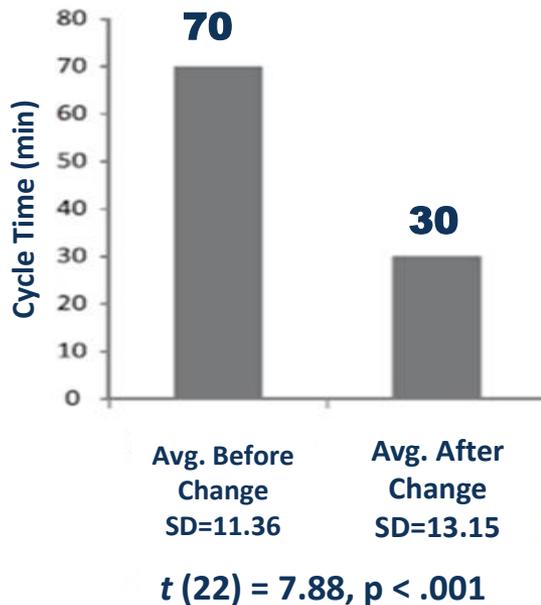
- Creates potential conflict of interest if evaluator assessing own advice
- If intervention changes as a result of feedback, when does the “real” intervention start? What intervention is being evaluated?
- Could be used to terminate programs before effects may emerge

One Tool for Rapid Cycle Studies

- **Statistical Quality Control (SQC)**
 - Old methodology developed by famous statisticians; widely used in marketing and quality control monitoring
 - Nonparametric method for identifying outcome shifts and trends from plots
 - Looks for sequences highly unlikely to occur if no shift in level or trend
- **Currently required for several health studies**
 - Example: effect of transitional care programs on 30-day hospital readmission rates

How Statistical Control Charts Can Help

Cycle Time Results for Units 1, 2 and 3



Source: Perla, R.J., L.P. Provost, and S.K. Murray. "The Run Chart: a Simple Analytical Tool for Learning from Variation in Healthcare Processes." *BMJ Quality & Safety*, vol. 20, no. 1, 2011, pp. 46-51

Pros and Cons of SQC Charts

- **Advantages**

- Quick, robust, intuitive to explain

- **Disadvantages**

- May lack comparison group

- Small sample sizes

- Can't identify program component responsible

- Confounded with other changes in environment

- Unknown lag between programmatic change and effect

For More Information

- **Randall Brown**

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What Are Opportunistic Experiments?

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May 21, 2014

Peter Z. Schochet, Senior Fellow

Addresses Causal Impact Questions

- Random assignment
- Built into a planned intervention, policy, or practice
- Initiated by a state or local entity to inform policy decisions
- Low disruption
- Easy access to data about key outcomes
- Could be low cost

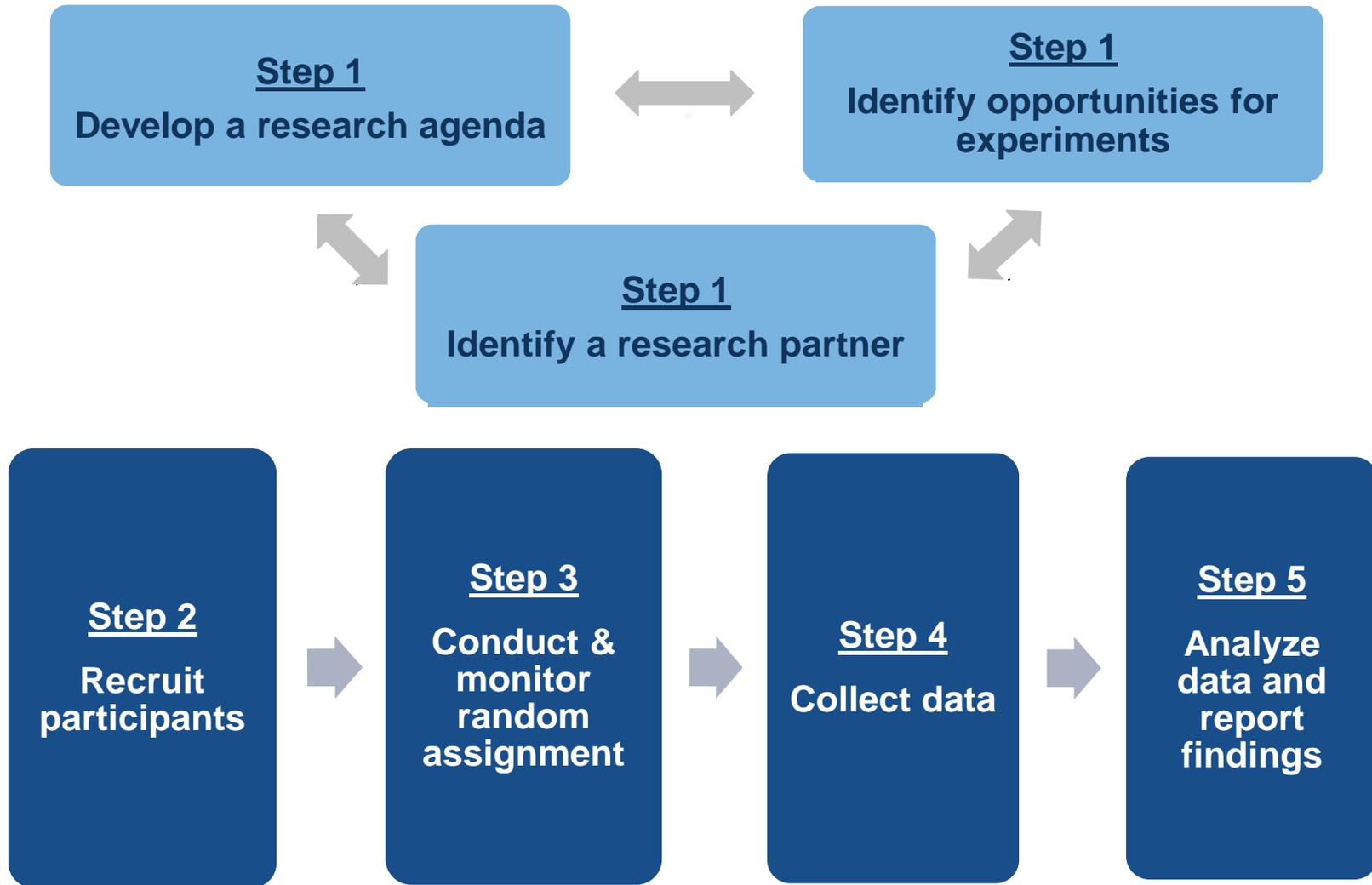
Identifying Opportunities

- Pilots of a new program or intervention
- Limited resources to roll out a new program
- Communication efforts
- Program over-subscription

Facilitating Successful Experiments

- **Establish strong partnerships between agencies and researchers**
- **Build evaluations into normal business operations**
- **Tools and training must be available**
- **Mathematica is developing**
 - Guides
 - Software for impact estimation

Ongoing Steps for Local Agencies



For More Information

- **Peter Z. Schochet**

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State and Local Goals and Application for Rapid Cycle Assessment



Angela Rachidi

**New York City Human
Resources Administration**

Federal Goals and Application for Rapid Cycle Assessment (1)



Renee Mentnech

CMS

Federal Goals and Application for Rapid Cycle Assessment (2)



Naomi Goldstein

**Administration for Children
and Families, HHS**

Panel Discussion



**Andy Feldman,
OMB**

**Peter Schochet,
Mathematica**



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Mathematica**

**Angela Rachidi,
New York City Human
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Questions?

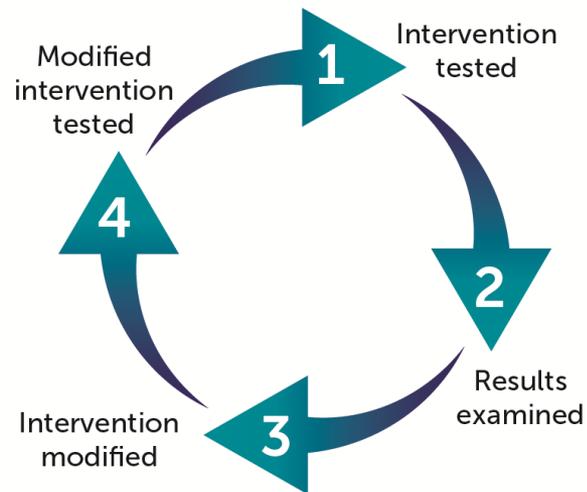
Rapid

Rapid identification of results



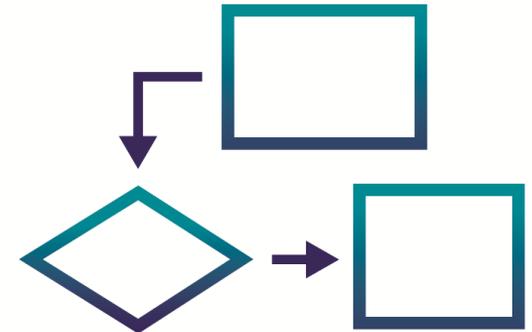
Cycle

Continuous improvement model



Evaluation

Rigorous experimental techniques



For More Information

- **Mathematica's Center for Improving Research Evidence**
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