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# **Discovery to Scale Up**

## **Implementation Science in Global Health**

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Ariel Pablos-Mendez, MD, PhD, Robert Clay, MPH**

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## **Goal of Implementation Science:**

To accelerate the adoption and integration of evidence-based interventions to change practice patterns, health behaviors, and inform public health policy decisions that ultimately will lead to lasting health impact at scale.



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## **(One) definition of implementation science**

The application of systematic learning, research and evaluation to improve health practice, policy and programs.



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## **Implementation science helps decision-makers to:**

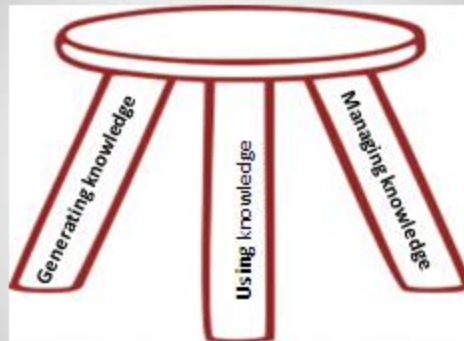
- Synthesize and organize information
- Develop, evaluate and select interventions
- Identify who can benefit most
- Understand context
- Adapt or adopt interventions
- Address barriers
- Assess fidelity
- Assess the global health impact



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## Paradigm for a “Discipline of Development”

Figure 1. Implementation Science Three Legged Stool



## Generating Knowledge: Implementation Research





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## A typology of implementation research

- Research intended to create knowledge that is useful in many contexts
- Research on problems, solutions and delivery processes particular to a given country or place
- Research on the translational steps linking research results to adaptation and adoption in the field, to scale up



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## Using Knowledge: Knowledge Translation & Scale Up





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## Knowledge Translation

*The synthesis, exchange and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health (WHO 2006).*



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## Managing Knowledge





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## Knowledge Management

*KM comprises a range of strategies and practices used in an organization to identify, create, represent, distribute and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizations as processes or practices.*



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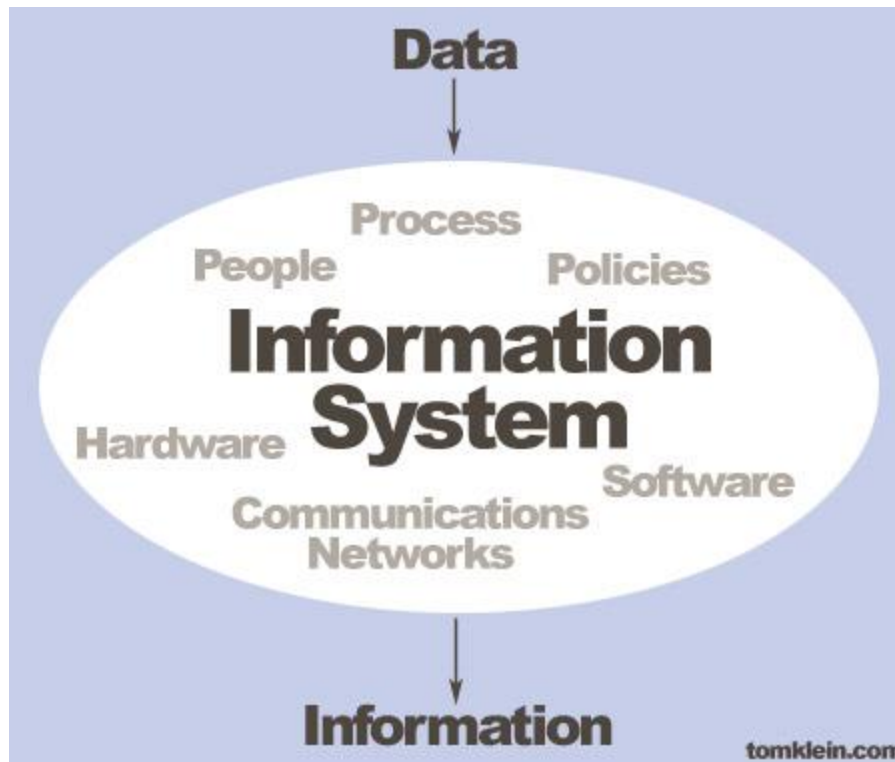
# Challenges





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## How do we create world class information systems?





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## What is good evidence?





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## Once we identify evidence-based practices, how do we prioritize them for scale up?





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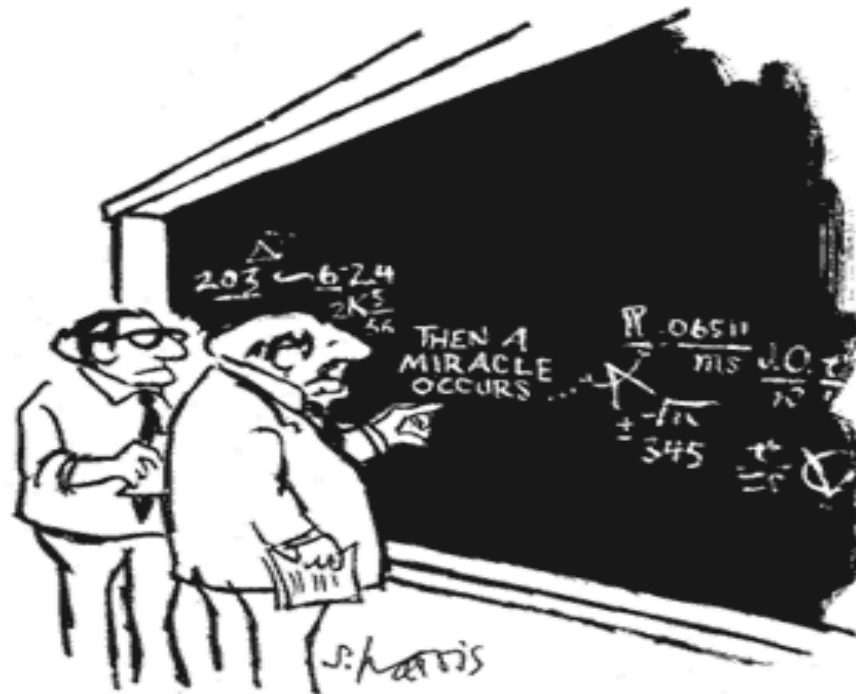
## What do we mean by scale up?

*The process of taking one or more interventions with known effectiveness and introducing it (them) into a program delivery strategy designed to reach high, sustained and equitable population coverage at adequate levels of fidelity and quality. (Victora et al 2004, adapted by Stephenson, Clay and Pablos-Mendez 2013)*



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## Mapping the Process of Scale Up: Developing a Theory of Change



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."



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## Creating Conditions for Sustainable, Equitable Scale Up: Value Chains

**–POLICY: formulation & implementation**

**–COMMUNITY: social co-productions**

**–BEHAVIORS: healthy lifestyle and adherence**

**–PRACTICE: clinical or organizational**

**–TECHNOLOGY: drugs, equipment, etc.**

**–SYSTEMS: finance, logistics, human  
resources, infrastructure, capacity, M&E**



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## How do we develop an implementation science agenda?





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# Thank you

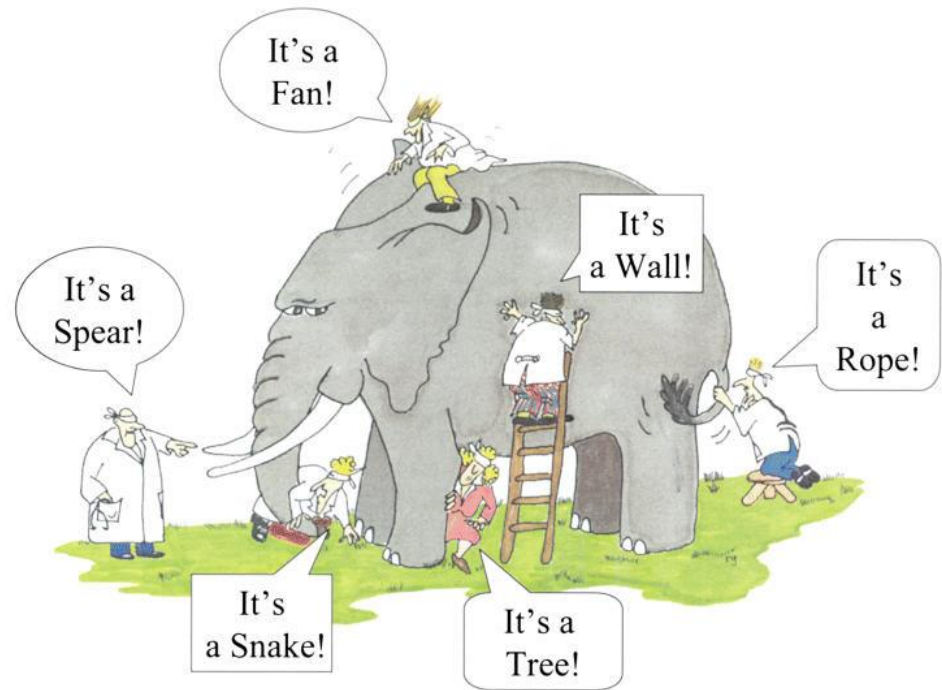
# What is Implementation Science?

Bryan J. Weiner, Ph.D.

University of North Carolina at  
Chapel Hill

# Roadmap

- How do domestic and global perspectives on IS differ?
- How is IS different from:
  - Process evaluation?
  - Improvement science?
  - Dissemination science?
  - Health systems strengthening?



# View from NIH

- **Implementation** is the use of strategies to adopt and integrate evidence-based health interventions and change practice patterns within **specific settings**.
- **IS**: the scientific study of methods to promote the integration of research findings and evidence-based interventions into **healthcare practice and policy**. It seeks to understand the behavior of healthcare professionals and support staff, healthcare organizations, healthcare consumers and family members, and policymakers in **context** as key variables in the adoption, implementation and sustainability of evidence-based interventions and guidelines...

# View from PEPFAR

- IS: the study of methods to improve the uptake, implementation, and translation of research findings into routine and common practices
- Scope: improve **program effectiveness** and optimize **efficiency**, including the effective transfer of interventions from one setting to another
- The PEPFAR IS Framework:
  - monitoring and evaluation
  - operations research
  - impact evaluation

# KQs: Monitoring and Evaluation

1. Is the program being implemented as designed and planned?
2. Are inputs and outputs sufficient to achieve the desired outcomes?
3. Are program benefits getting to intended recipients?
4. Are expected program outcomes moving in the right direction?

# KQs: Operations Research

1. What are the implementation problems exhibited by a particular project?
2. What are innovative solutions to deal with implementation problems?
3. What policies or service delivery models can improve effectiveness or efficiency?
4. What is the optimal allocation of resources for the program?

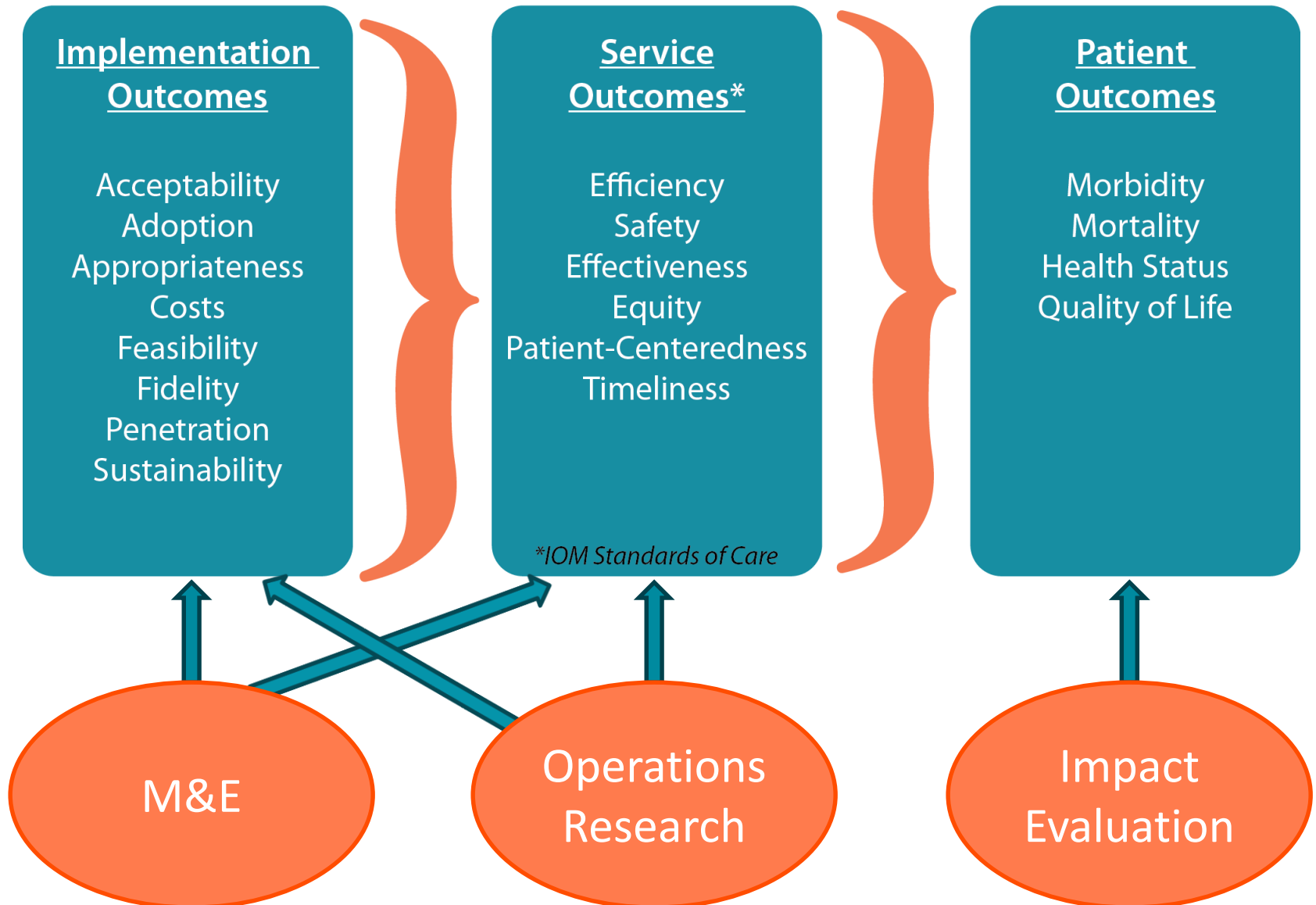
# KQ: Impact Evaluation

1. What would have happened had the intervention not taken place?
2. What was the impact of the intervention on beneficiaries?
3. How does the outcome among beneficiaries compare to the outcome among individuals who were not involved in the program?

# View from WHO/TDR

- **Implementation** involves evidence-supported, systematic, and planned efforts within a **system (or organization)** to institutionalize an intervention and to ensure its intended effects and impacts.
- **Implementation research** asks: “What is happening in the design, implementation, administration, operation, services, and outcomes of social programs? Is it what is expected or desired? Why is it happening the way it is?”
- Implementation research does not isolate the effects from the **context**, thus distinguishing itself from clinical trials and impact evaluations.

# Types of Outcomes in Implementation Research



# Questions to Ponder

- Does IS include integration of evidence-based health interventions into informal settings (e.g., families)?
- Is patient adherence an implementation outcome?
- How about patient adoption of health behavior?
- Is dissemination science distinct from, or included in, IS?
- If context is an important aspect of IS, what is the role of the randomized controlled trial?

# Reserve Slides

# Am I Doing IS if I'm...

- Implementing evidence-based programs?
- Providing training or technical assistance?
- Building capacity?
- Doing quality improvement?
- Doing a process evaluation?

Answer: probably not... but could support IS

# Learning while Doing

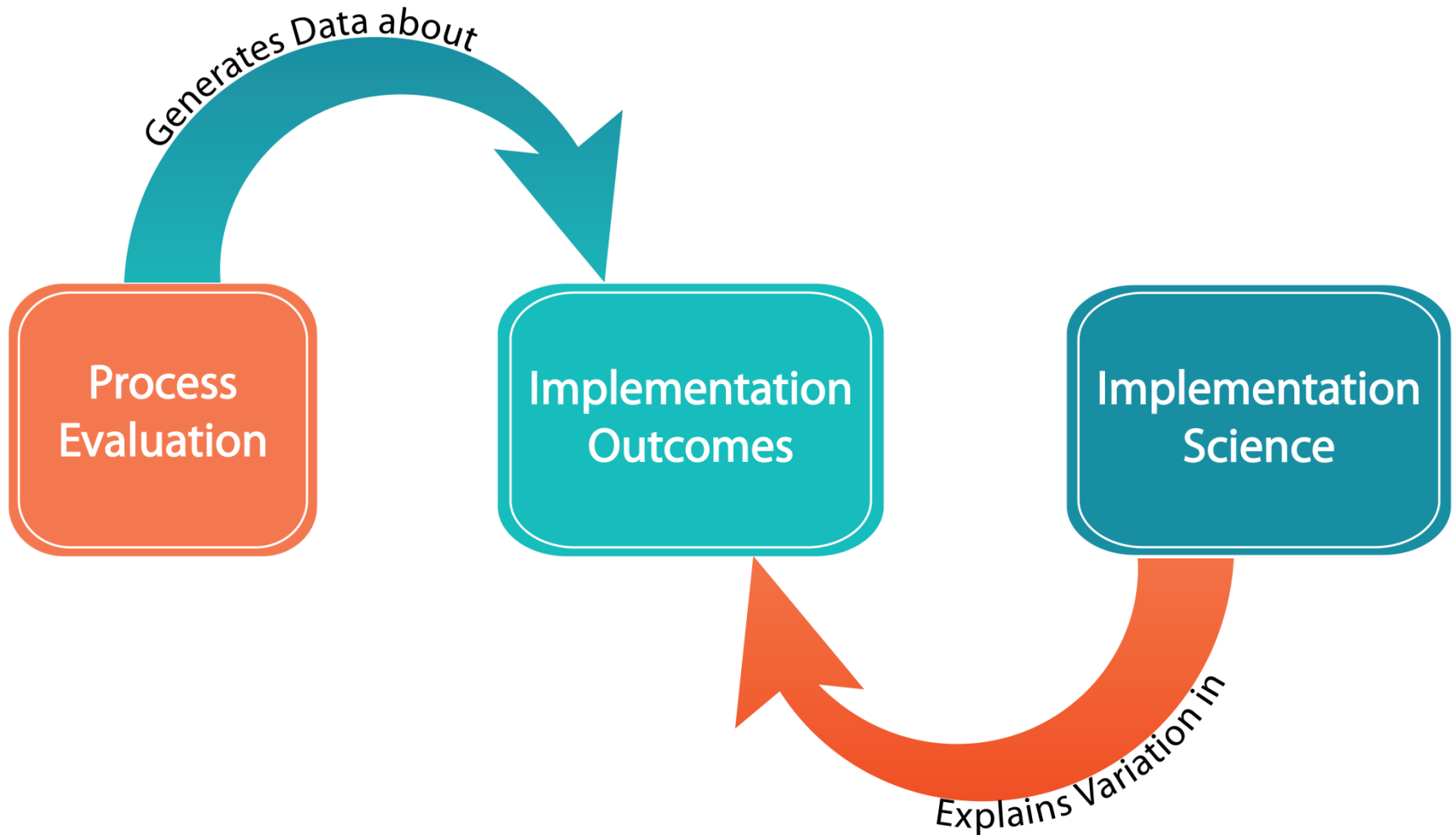


\* Training, technical assistance, capacity building, quality improvement, etc....

# Process Evaluation

- ...describe how program activities were delivered.
- ...determine the degree to which program activities were implemented as planned.
- ...assess link between program activities and outcomes.
- Useful for:
  - Monitoring, improvement, replication
  - Investigating dose-response relationship

# Combining Process Evaluation and IS



# Improvement Science

- **Quality improvement (QI)** uses quantitative and qualitative methods to improve the effectiveness, efficiency, and safety of service delivery processes and systems, as well as the performance of human resources in delivering products and services.
- **Improvement science**: a body of knowledge that describes how to improve safety and consistently.... the primary goal of this scientific field is to determine which improvement strategies work as we strive to assure effective and safe patient care.

# Types of Outcomes in Implementation Research

## Implementation Outcomes

Acceptability  
Adoption  
Appropriateness  
Costs  
Feasibility  
Fidelity  
Penetration  
Sustainability

## Service Outcomes\*

Efficiency  
Safety  
Effectiveness  
Equity  
Patient-Centeredness  
Timeliness

*\*IOM Standards of Care*

## Patient Outcomes

Morbidity  
Mortality  
Health Status  
Quality of Life

# Dissemination Science

- Dissemination: the targeted distribution of information and intervention materials to a specific public health audience or clinical practice audience
- Core processes: communication and social influence
- Key outcomes:
  - Awareness
  - Knowledge
  - Positive view
  - Intention to adopt
  - Adoption

# Types of Outcomes in Implementation Research

## Implementation Outcomes

Acceptability  
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*\*IOM Standards of Care*

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# Health Systems Strengthening

- **Health systems strengthening**: (i) the process of identifying and implementing the changes in policy and practice in a country's health system such that the country can respond better to its health and health system challenges and (ii) any array of initiatives and strategies that improves one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency.

# Example

- FHI360: Health Systems Strengthening (HSS) Program Component of USAID/Senegal's Health Program
- Aims:
  - Innovative financing mechanisms for health activities at decentralized levels,
  - Planning and evaluation of the health system at decentralized levels, and
  - Innovative strategies for financing HIV care and support through local health insurance schemes, micro-credit and a fund managed by regional administrative and technical institutions to promote sustainability.

# Types of Outcomes in Implementation Research

## Implementation Outcomes

Acceptability  
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Sustainability

## Service Outcomes\*

Efficiency  
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Timeliness

*\*IOM Standards of Care*

## Patient Outcomes

Morbidity  
Mortality  
Health Status  
Quality of Life



# *What are Implementation Frameworks & Strategies?*

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Presented at the FHI360 Symposium: Implementation Science  
in Global Health. September 4, 2014 Washington DC

# Implementation Frameworks and Strategies

## ■ Implementation Framework:

- A proposed model of factors likely to impact implementation and sustainment of EBP
  - (Aarons, Hurlburt, & Horwitz, 2011; Damschroder et al., 2009; Tabak et al., 2012)

## ■ Implementation Strategy:

- Systematic processes to adopt and integrate evidence-based innovations into usual care.
  - (Powell et al., 2011)

# Review of Models

(Tabak, et al., 2012)

- Reviewed 61 models
  - Models (aka “theories” or “frameworks”)
  - Frameworks evaluated on:
    - Construct flexibility
      - Broad → highly operationalized
    - Focus on dissemination vs. implementation
      - D-only → D+I → I-only
    - Socioecologic framework level
      - Individual → Community → System

Source: Tabak, R. G., Khoong, E. C., Chambers, D. A., & Brownson, R. C. (2012). Bridging research and practice: models for dissemination and implementation research. *American journal of preventive medicine*, 43(3), 337-350.

**Table 2.** Categorization of D&I models for use in research studies (*continued*)

Model	Dissemination and/or Implementation	Construct flexibility: broad to operational	Socioecologic Level					References
			System	Community	Organization	Individual	Policy	
Pronovost's 4E's Process Theory	I-only	3		x	x	x		101
Sticky Knowledge	I-only	3		x	x	x		102, 103
Consolidated Framework for Implementation Research	I-only	4		x	x			104, 105
Replicating Effective Programs Plus Framework	I-only	4		x	x			106
Availability, Responsiveness & Continuity (ARC): An Organizational & Community Intervention Model	I-only	5		x	x			107, 108
Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors EPIS	I-only	5		x	x			109

D&I, dissemination and Implementation; DHAP, Division of HIV/AIDS Use, and HIV Testing In Reducing HIV Risk Behavior and Prevention; 4E, exposure, experience, expertise, embedding; OPTIONS, OutPatient Treatment In Ontario Services; Precede-Proceed, predisposing, reinforcing, and enabling constructs in educational diagnosis and evaluation—policy, regulatory, and organizational constructs in educational and environmental development; Pronovost's 4E's, engage, educate, execute, evaluate; RAND, research and development; RE-AIM, reach, effectiveness, adoption, implementation, and maintenance

Most frameworks also are adapted or modified in practice

Source: Tabak, R. G., Khoong, E. C., Chambers, D. A., & Brownson, R. C. (2012). Bridging research and practice: models for dissemination and implementation research. *American journal of preventive medicine*, 43(3), 337-350.

# Common Elements of Frameworks

## ■ Multiple Levels

- Implementation occurs in complex systems
- Need to identify concerns at different levels
  - System
  - Organization
  - Provider
  - Patient

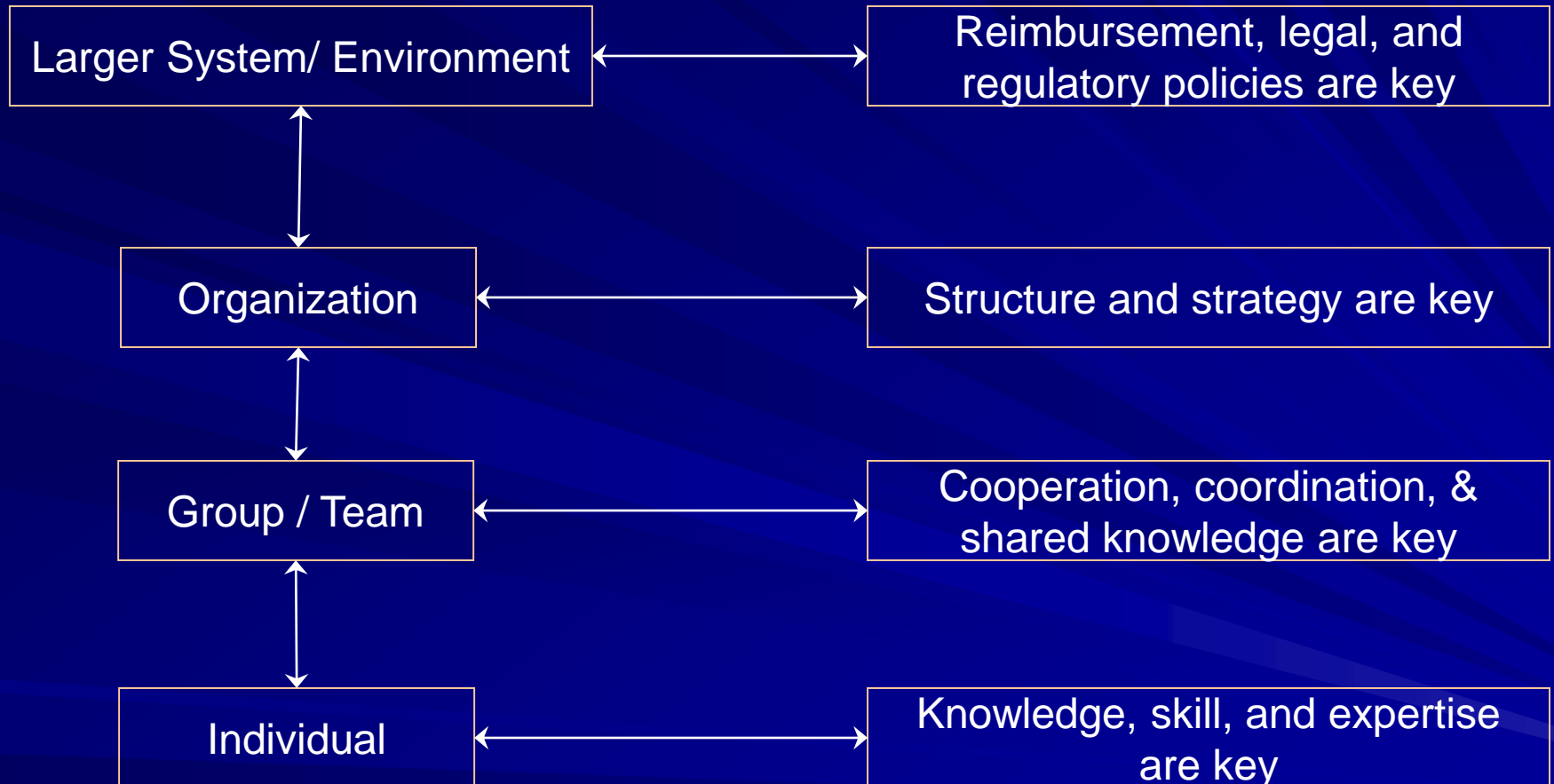
## ■ Multiple phases

- Implementation occurs over time
- There may be relatively discrete phases or stages

# Multiple Levels in Quality Improvement

## Four Levels of Change for Assessing Performance Improvement

## Assumptions about Change



Shortell, S. M. (2004). Increasing value: a research agenda for addressing the managerial and organizational challenges facing health care delivery in the United States. *Medical Care Research and Review*, 61(3 suppl), 12S-30S.

Ferlie, E. B., & Shortell, S. M. (2001). Improving the quality of health care in the United Kingdom and the United States: a framework for change. *Milbank Quarterly*, 79(2), 281-315.

# Outer Context

## ■ System

- Leadership
- Policy
- Packaging and use of research evidence
- Communications
- Collaboration/Negotiation
- Funding strategies

Aarons, G. A., Hurlburt, M., Willging, C., Fettes, D., Gunderson, L., Chaffin, M., & Palinkas, L. (In press). Collaboration, Negotiation, and Coalescence for Interagency-Collaborative Teams to Scale-up Evidence-Based Practice. *Journal of Clinical Child and Adolescent Psychology*.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Science* 4(1), 50.

Grimshaw, J. M., Eccles, M. P., Lavis, J. N., Hill, S. J., & Squires, J. E. (2012). Knowledge translation of research findings. *Implementation Science*, 7(1), 50.

Lavis, J. N., Røttingen, J. A., Bosch-Capblanch, X., Atun, R., El-Jardali, F., Gilson, L., ... & Haines, A. (2012). Guidance for evidence-informed policies about health systems: linking guidance development to policy development. *PLoS medicine*, 9(3), e1001186.

# Inner Context

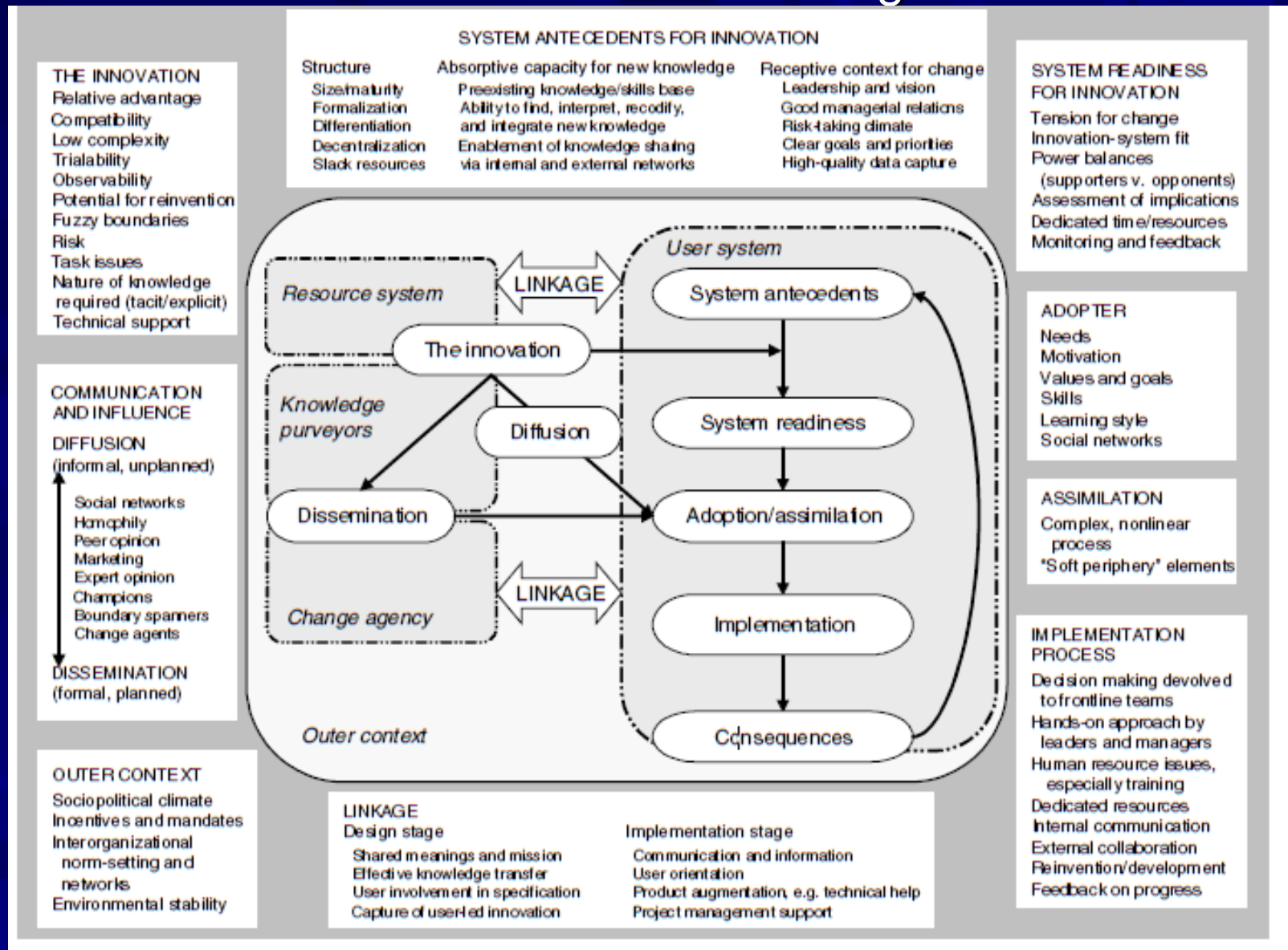
- Organization
  - Congruence of leadership
  - Culture/climate for evidence-based care
- Provider
  - Local opinion leaders (formal/informal)
  - Individual attitudes
  - Perceptions of what is “expected, supported, rewarded”
- Patient
  - Advocacy/empowerment
  - Competing demands
  - Co-morbidities

Aarons, G.A., Hurlburt, M. & Horwitz, S.M. (2011). Advancing a Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors. *Administration and Policy in Mental Health and Mental Health Services Research*.38, 4-23.

Borntrager, C. F., Chorpita, B. F., Higa-McMillan, C., & Weisz, J. R. (2009). Provider attitudes toward evidence-based practices: Are the concerns with the evidence or with the manuals? *Psychiatric Services*, 60(5), 677-681.

Jacobs, S. R., Weiner, B. J., & Bunger, A. C. (2014). Context matters: measuring implementation climate among individuals and groups. *Implementation Science*, 9(1), 46.

# Diffusion Model for Service Organizations



Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: systematic review and recommendations. *Milbank Quarterly*, 82(4), 581-629.

## CONTEXT

## ADDITIONAL FILE 2: Matrix of Constructs from Models in the Literature to CFIR Constructs

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC: Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science

See Table 1 in main paper for full citations:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Overbaugh et al. <sup>19</sup>	Klein, Conn & Sorensen <sup>14,15</sup>	Pettigrew & Whipp <sup>20</sup>	Leaman <sup>21</sup>	PARISH Model <sup>14,15</sup>	Others Model <sup>22</sup>	Stimpson <sup>23</sup>	Kodumbe & Yano <sup>24</sup>	Sedgwick <sup>25</sup>	Stanton et al. <sup>19</sup>	Kilbourne et al. <sup>26</sup>	VanDusen Lubian et al. <sup>27</sup>	Geel et al. <sup>28</sup>	Mendel et al. <sup>2</sup>	Flake et al. <sup>29</sup>	Barnett et al. <sup>30</sup>	Gilman et al. <sup>31</sup>	Fadelstein & Glasgow <sup>32</sup>	Fambach & Schilleweert <sup>33</sup>
<b>I. INTERVENTION CHARACTERISTICS</b>																			
A Intervention Source			✓						✓	✓			✓						
B Evidence Strength & Quality				✓	✓	✓			✓		✓			✓		✓		✓	
C Relative advantage	✓				✓	✓			✓	✓			✓	✓		✓		✓	✓
D Adaptability	✓	✓	✓	✓	✓				✓		✓		✓			✓		✓	
E Trialability	✓	✓		✓	✓				✓	✓			✓			✓		✓	✓
F Complexity	✓	✓						✓	✓	✓			✓	✓		✓		✓	✓
G Design Quality and Packaging		✓				✓					✓		✓						
H Cost						✓										✓		✓	
<b>II. OUTER SETTING</b>																			
A Patient Needs & Resources			✓		✓	✓					✓	✓		✓	✓		✓	✓	
B Cosmopolitanism	✓		✓				✓							✓			✓		✓
C Peer Pressure	✓		✓								✓	✓		✓			✓		✓
D External Policies & Incentives	✓		✓								✓	✓		✓		✓		✓	
<b>III. INNER SETTING</b>																			
A Structural Characteristics	✓		✓									✓		✓					✓
B Networks & Communications	✓	✓	✓		✓	✓	✓					✓		✓		✓	✓	✓	✓
C Culture	✓	✓	✓		✓	✓	✓					✓		✓		✓	✓	✓	✓
D Implementation Climate			✓											✓			✓		✓
1 Tension for Change	✓		✓						✓		✓	✓		✓		✓		✓	✓
2 Competibility	✓	✓					✓	✓	✓	✓			✓	✓		✓		✓	✓
3 Relative Priority		✓							✓				✓	✓		✓		✓	✓
4 Organizational Incentives & Rewards	✓	✓	✓	✓							✓	✓		✓				✓	
5 Goals and Feedback	✓	✓	✓		✓		✓	✓				✓		✓				✓	
6 Learning Climate	✓	✓			✓		✓					✓						✓	
D Readiness for Implementation			✓															✓	
1 Leadership Engagement	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓				✓		✓	✓
2 Available Resources	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓		✓		✓		✓	✓
3 Access to knowledge and information	✓	✓		✓		✓		✓			✓					✓		✓	✓
<b>IV. CHARACTERISTICS OF INDIVIDUALS</b>																			
A Knowledge & Beliefs about the Intervention	✓					✓						✓	✓	✓		✓		✓	✓
B Self-efficacy	✓	✓										✓	✓	✓				✓	
C Individual Stage of Change	✓	✓											✓	✓				✓	
D Individual Identification with Organization														✓		✓	✓		
E Other Personal Attributes												✓	✓						✓
<b>V. PROCESS</b>																			
A Planning	✓		✓		✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
B Engaging	✓		✓						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1 Opinion Leaders	✓				✓					✓	✓			✓		✓	✓	✓	✓
2 Formally appointed internal implementation leaders			✓													✓	✓	✓	✓
3 Champions	✓											✓				✓	✓	✓	✓
4 External Change Agents	✓													✓		✓	✓	✓	✓
C Executing	✓		✓						✓		✓		✓	✓		✓	✓	✓	✓
D Reflecting & Evaluating	✓		✓						✓	✓	✓		✓	✓	✓	✓	✓	✓	✓

# Consolidated Framework for Implementation Research (CFIR)

## ■ CFIR domains:

- Intervention characteristics
- Outer setting
- Inner setting
- Characteristics of the individuals involved
- Process of implementation

# Exploration, Preparation, Implementation, Sustainment (EPIS) Model

- Key phases of the implementation process
- Multilevel
- Frames implementation factors across levels within each phase
- Enumerates common and unique factors across levels and across phases

## EXPLORATION

### OUTER CONTEXT

Sociopolitical Context  
Legislation  
Policies  
Monitoring and review  
Funding  
Service grants  
Research grants  
Foundation grants  
Continuity of funding  
Client Advocacy  
Consumer organizations  
Interorganizational networks  
Direct networking  
Indirect networking  
Professional organizations  
Clearinghouses  
Technical assistance centers

### INNER CONTEXT

Organizational characteristics  
Absorptive capacity  
Knowledge/skills  
Readiness for change  
Receptive context  
Culture  
Climate  
**Leadership**  
Individual adopter characteristics  
Values  
Goals  
Social Networks  
Perceived need for change

## PREPARATION

### OUTER CONTEXT

Sociopolitical  
Federal legislation  
Local enactment  
Definitions of "evidence"  
Funding  
Support tied to federal and state policies  
Client advocacy  
National advocacy  
Class action lawsuits  
Interorganizational networks  
Organizational linkages  
**Leadership ties**  
Information transmission  
Formal  
Informal

### INNER CONTEXT

Organizational characteristics  
Size  
Role specialization  
Knowledge/skills/expertise  
Values  
**Leadership**  
Culture embedding  
Championing adoption

## IMPLEMENTATION

### OUTER CONTEXT

Sociopolitical  
Legislative priorities  
Administrative costs  
Funding  
Training  
Sustained fiscal support  
Contracting arrangements  
Community based organizations.  
Interorganizational networks  
Professional associations  
Cross-sector  
Contractor associations  
Information sharing  
Cross discipline translation  
Intervention developers  
Engagement in implementation  
**Leadership**  
**Cross level congruence**  
**Effective leadership practices**

### INNER CONTEXT

Organizational Characteristics  
**Leadership**  
Structure  
Priorities/goals  
Readiness for change  
Receptive context  
Culture/climate  
Innovation-values fit  
EBP structural fit  
EBP ideological fit  
Individual adopter characteristics  
Demographics  
Adaptability  
Attitudes toward EBP

## SUSTAINMENT

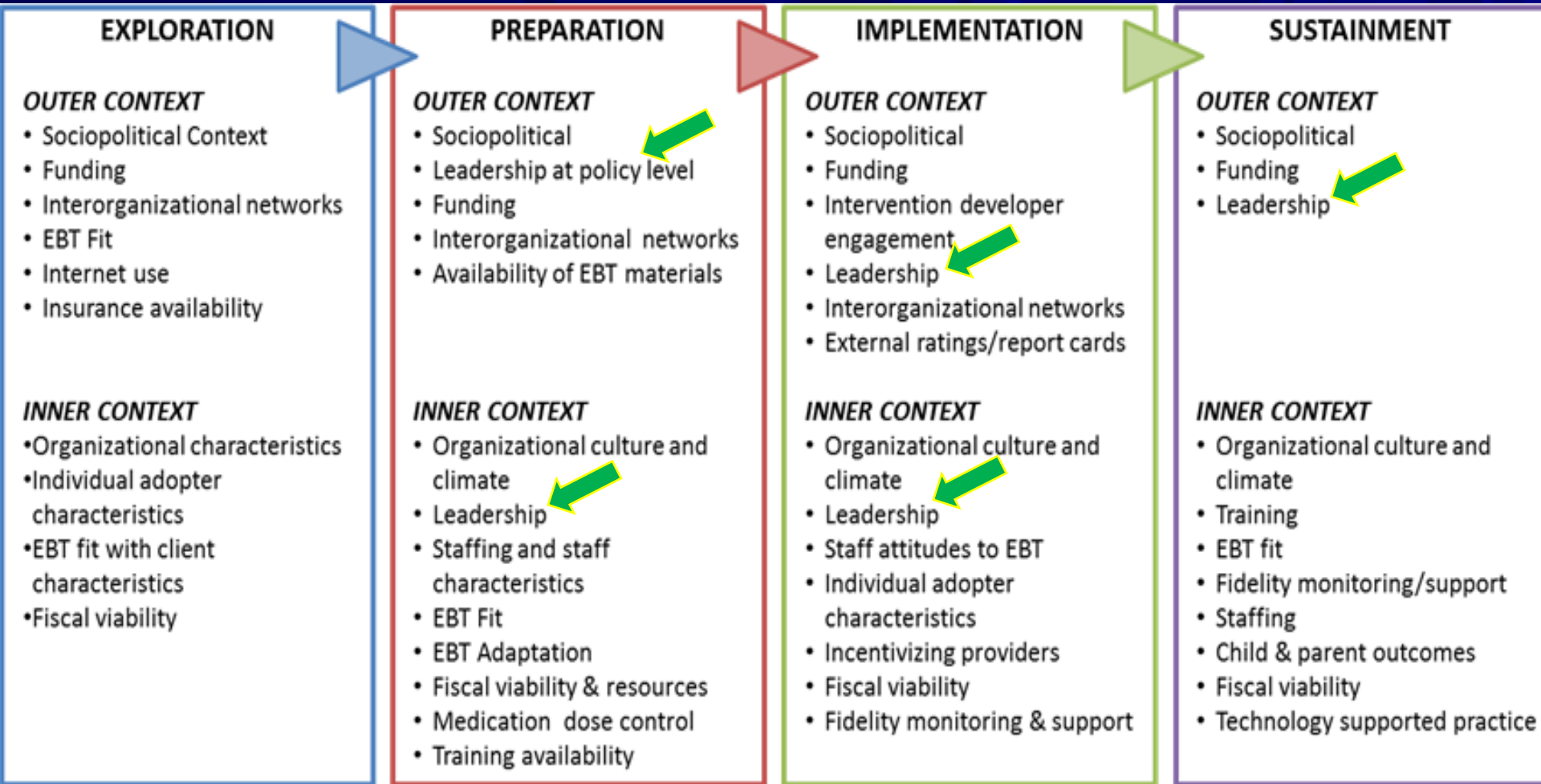
### OUTER CONTEXT

Sociopolitical  
**Leadership**  
Policies  
Federal initiatives  
State initiatives  
Local service system  
Consent decrees  
Funding  
Fit with existing service funds  
Cost absorptive capacity  
Workforce stability impacts  
Public-academic collaboration  
Ongoing positive relationships  
Valuing multiple perspectives

### INNER CONTEXT

Organizational characteristics  
**Leadership**  
Embedded EBP culture  
Critical mass of EBP provision  
Social network support  
Fidelity monitoring/support  
EBP Role clarity  
Fidelity support system  
Supportive coaching  
Staffing  
Staff selection criteria  
Validated selection procedures

# EPIS MODEL



Adapted from: Aarons, G.A., Hurlburt, M. & Horwitz, S.M. (2011). Advancing a Conceptual Model of Evidence-Based Practice Implementation in Public Service Sectors. *Administration and Policy in Mental Health*, 38, 4-23.

Novins, D.K., Green, A.E., Legha, R.K., & Aarons, G.A. (2013). *Dissemination and Implementation of Evidence-Based Practices for Child and Adolescent Mental Health: A Systematic Review*. *Journal of the American Academy of Child and Adolescent Psychiatry*. 52(10), 1009-1025

# Implementation Strategies

- *Address specific factors identified in implementation frameworks*
- Discrete implementation strategies
  - Clinical reminders, training only
- Multifaceted implementation strategies
  - Training + reminders
  - Training + fidelity monitoring + coaching
- Blended implementation strategies (comprehensive)
  - Dynamic Adaptation Process strategy (DAP)
  - Leadership and Organizational Change for Implementation (LOCI)

Powell , McMillen, Proctor et al (2011). A compilation of strategies for implementing clinical innovations in health and mental health. *Medical Care Research and Review*, 69(2) 123-157.

Aarons, G. A., Green, A. E., Palinkas, L. A., Self-Brown, S., Whitaker, D. J., Lutzker, J. R., ... & Chaffin, M. J. (2012). Dynamic adaptation process to implement an evidence-based child maltreatment intervention. *Implementation Science*, 7(32), 1-9.

# Domains of Strategies

Type of Strategy	Description	Context Level	N
Planning	Info gathering, leadership, relationships	Outer/Inner	n=17
Education	Training, materials, influence stakeholders	Inner/Outer	n=16
Financing	Incentives, financial support	Inner/Outer	n=9
Restructuring	Change roles, create teams, alter record systems, create relationships	Inner/Outer	n=7
Quality Management	MIS + feedback, clinical reminders, decision support, PDSA cycles	Inner/Outer	n=16
Policy Change	Licensure, accreditation, certification, mandates	Outer/Inner	n=3

Source: Powell , McMillen, Proctor et al (2011). A compilation of strategies for implementing clinical innovations in health and mental health. *Medical Care Research and Review*, 69(2) 123-157.

# Questions for Discussion

- How are frameworks useful (or not)?
  - Are frameworks important for funding agencies (why or why not)
  - A theory of change or theory of what specific factors impact implementation effectiveness
- Is there a difference between a strategy and an intervention?
  - Clinical
  - Public health
  - implementation
- Fidelity of what?
  - Intervention fidelity vs. implementation fidelity
- Implementation effectiveness vs. Intervention effectiveness
- To what degree is IS defined by what is funded and the perception of those decisions by others in the field

# Contact

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<http://psychiatry.ucsd.edu/faculty/gaarons.html>

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ELIZABETH GLASER  
PEDIATRIC AIDS  
FOUNDATION

# Implementation Research in PMTCT

Laura Guay

Vice President for Research

Elizabeth Glaser Pediatric AIDS Foundation

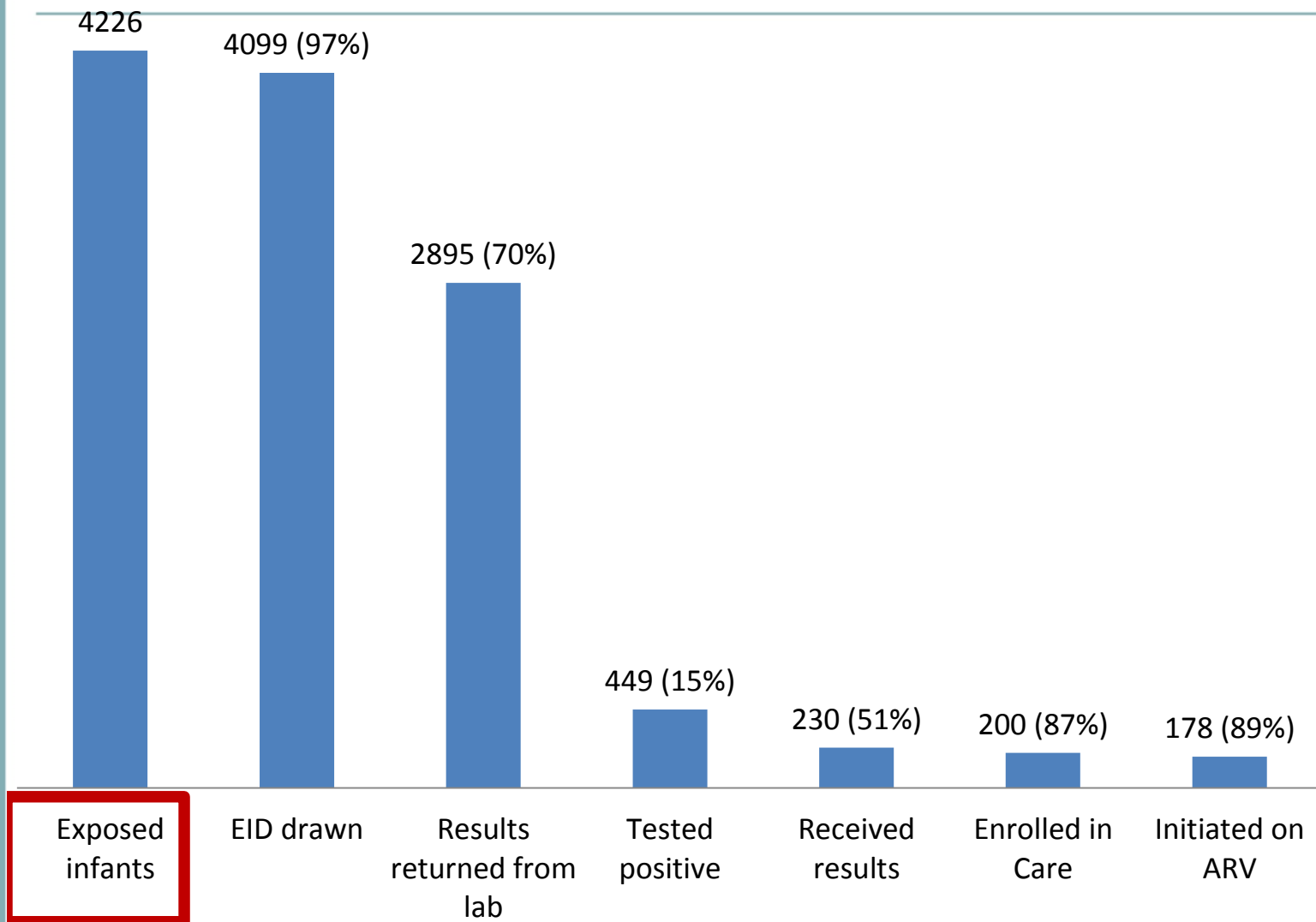
Research Professor GWU

# Utilizing Routine PMTCT Monitoring Data for IR

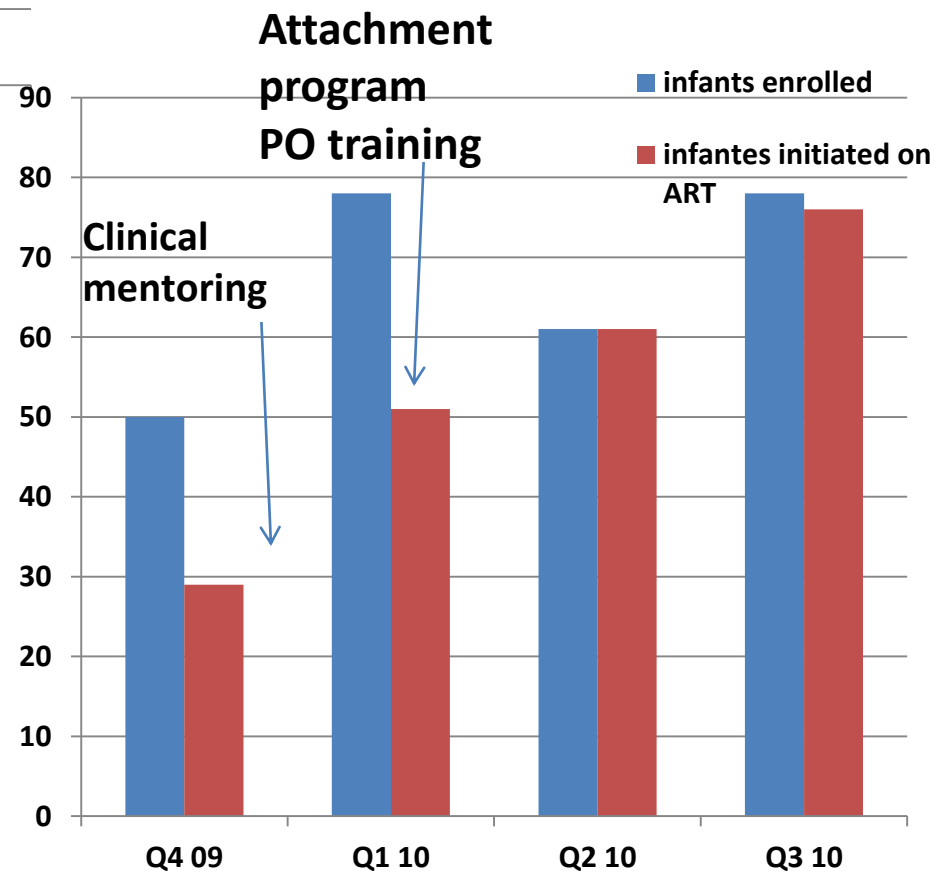
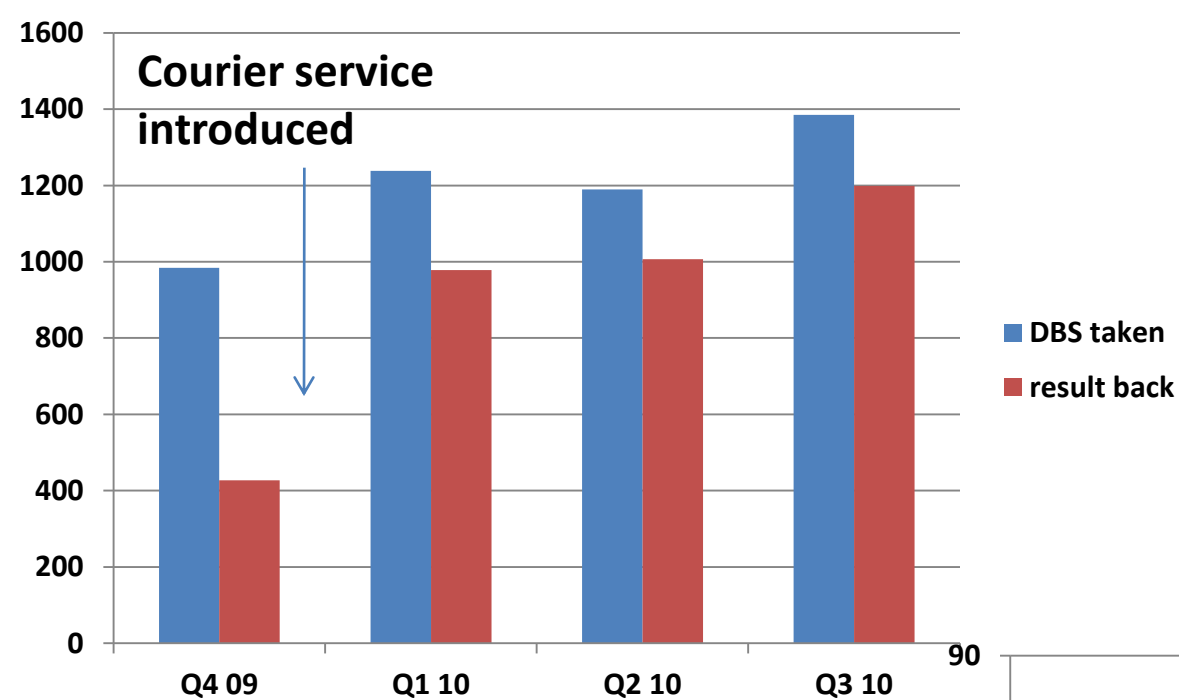
---

- Advantage in large sample size and country wide distribution
- Does not require additional staff, data collection, or disruption of clinic flow
- However, often under-utilized resource; lessons can be learned from more analysis, better mining of existing data
- Need clear understanding of the indicators and definitions and the limitations of the data

# Testing Status of Infants



Overall , 633 infected children = 71% identified, 28% treated



# Challenges in Utilizing Routine PMTCT Data for IR

---

- Missing Data/Data quality
  - Double counting (>100% variables)
- Lack of electronic individual patient level data
  - May improve with Option B+ (ART electronic records)
- Inability to link Mother-infant pairs
- Difficulty linking data across service delivery sites within a facility
- Health seeking across different health facilities

# Designing IR within programs

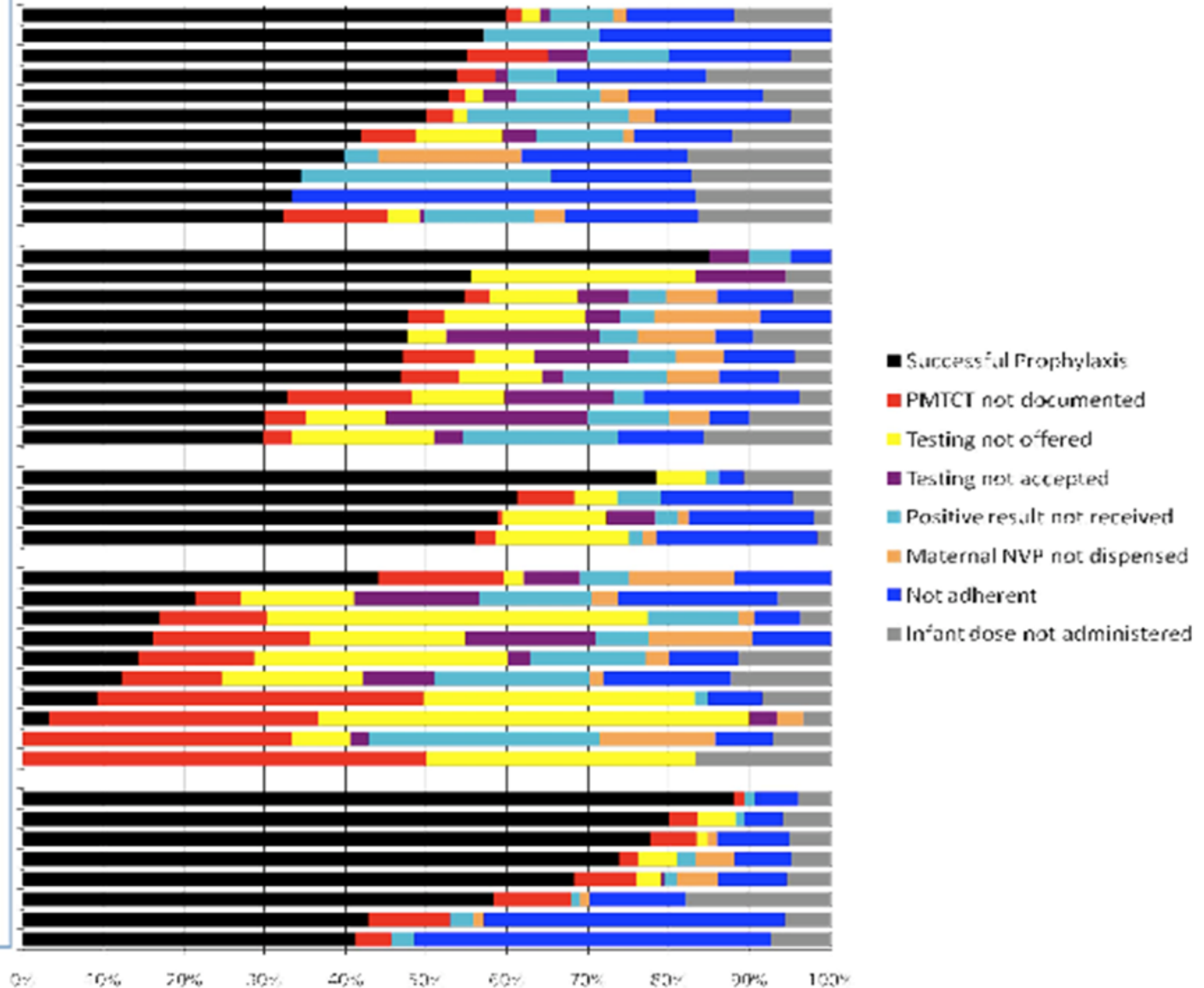
---

- Time for developing relationships, understanding gaps being addressed, implementing and evaluating feasible solutions
- Balancing rigor with reality in study design, budget, timeline
- Different interpretations of human subjects research vs non-research determinations

# The Pearl Study: Coverage Cascade

Stringer E et al *JAMA*. 2010;304(3):293-302

Individual  
treatment  
facilities



# Challenges in conducting IR within PMTCT programs

---

- PMTCT field is continually evolving with changes implemented while studies in progress
- Multiple concurrent activities being done in field making attribution difficult
- “Protecting” study control sites interferes with program activities
- Changes in facility services, populations, or partner support during the study

# Challenges in conducting IR within programs

---

- Enhanced “Hawthorne effect”, not just due to observation but also to additional data collection, particularly in control groups
- Clinical/ethical obligation to intervene when problems identified by study team, effect on interpretation of results
- Lack of program experience in human subjects protection regulations, IRB/ regulatory delays

# Program Challenges Form

Activity	Missed	Comments
Routine CD4 testing not done	<input type="checkbox"/>	
Routine VL testing not done	<input type="checkbox"/>	
Routine DBS not collected	<input type="checkbox"/>	
Routine EID testing not done	<input type="checkbox"/>	
Routine HIV antibody testing not done	<input type="checkbox"/>	
Other routine laboratory tests not done Specify _____	<input type="checkbox"/>	
Missed visit for child follow-up not noted	<input type="checkbox"/>	
Program specified tracing of child not done	<input type="checkbox"/>	
Missed visit for maternal ART follow-up not noted	<input type="checkbox"/>	
Program specified tracing of mother not done	<input type="checkbox"/>	
Child growth faltering not identified	<input type="checkbox"/>	
Referral to nutrition support for growth faltering not done	<input type="checkbox"/>	
HIV infected child not referred for care/ ART	<input type="checkbox"/>	
Appropriate ART not provided	<input type="checkbox"/>	

# Critical elements

---

- Close working relationship with Ministries of health, facilities, implementing partners, funders, IRB/ECs
- Careful consideration of potential obstacles during the planning process (and contingencies)
- Close monitoring of study progress and changes within the study environment

# The Rang-Din Nutrition Study in Bangladesh

Implementation science- The Food And Nutrition Technical Assistance (FANTA)  
project's experience

Zeina Maalouf-Manasseh

September 4, 2014



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**FANTA III**

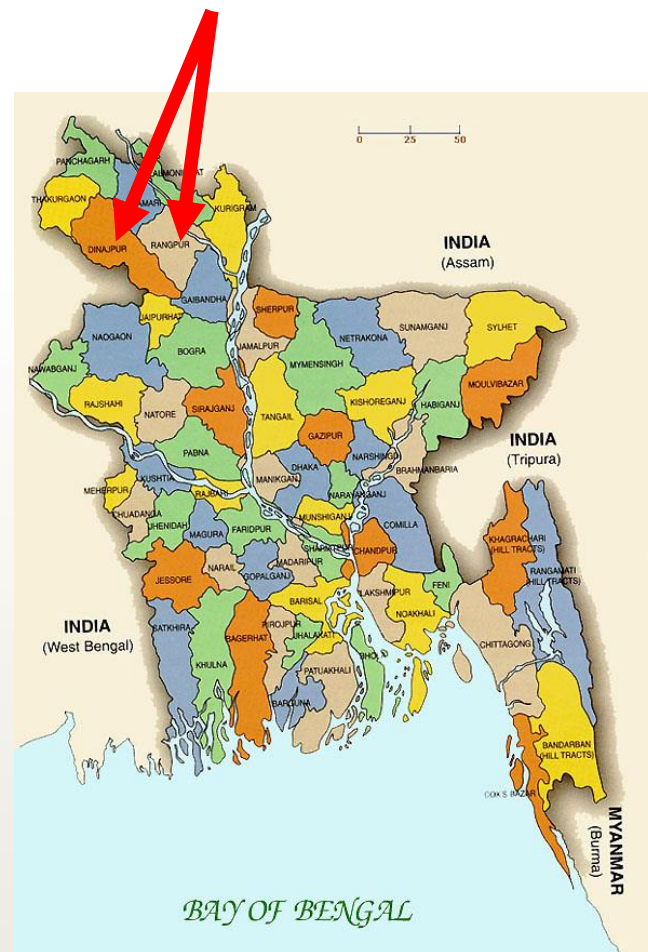
# Longitudinal RCT

- Measuring effectiveness of home fortification for the prevention of malnutrition over the 1,000 days window of opportunity
  - Small quantity-Lipid-based Nutrient Supplements (SQ-LNS) for mothers & children
  - SQ-LNS for children
  - MicroNutrient Powders (MNP) for children
  - Control arm
- Main outcomes: maternal and child health and nutrition



# Research setting

- Community Health and Development Program (CHDP) providing:
  - maternal health services during pregnancy,
  - delivery care,
  - postpartum care,
  - neonatal and child health services



# Objectives of the Process Evaluation

- To identify the human and other resources required to deliver the products and the associated messages
- To assess the
  - reach
  - dose delivered
  - dose received
  - fidelity

of the intervention, in the context of the CHDP.



# Traditional RCT framework

INPUTS

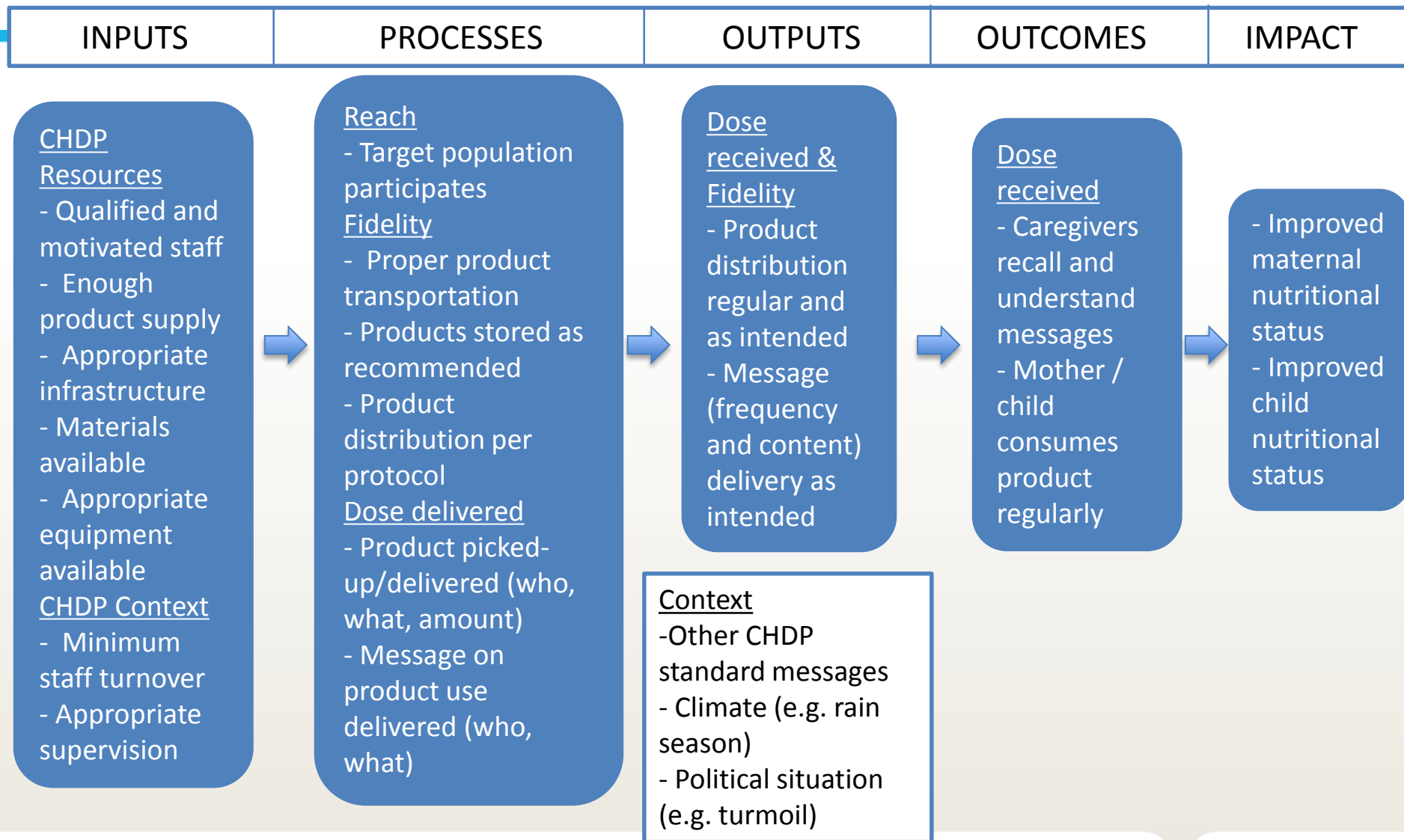
IMPACT

Product supplied

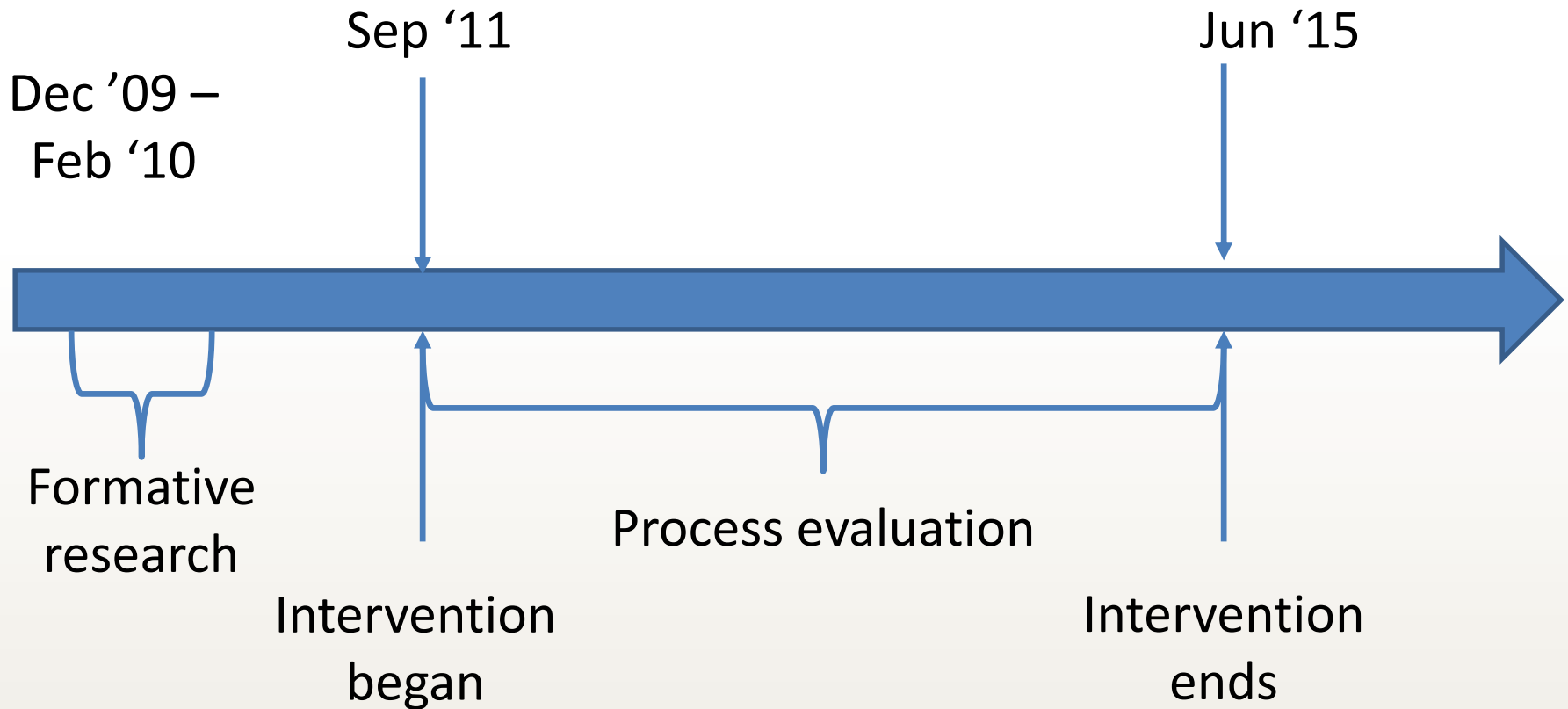


Improved maternal  
nutritional status  
Improved child  
nutritional status

# Study program theory framework



# Timeline



# Mixed Methods Process Evaluation

Process component examined	Data source
Human Resources	baseline and annual interviews, time and motion assessments
Physical resources	inventory checklists
Reach	training pre & post-tests, beneficiary registers
Fidelity	storage register logs, product distribution register (quarterly)
Dose delivered/received	participant adherence assessment (mode of consumption, sharing, delivery mechanism), qualitative assessment of facilitators and barriers to practices
Context	baseline and periodic assessments of governance, management practices, HR, financial resources; mapping of community facilities GIS data

# Data collection



# Challenges

- Local capacity:
  - Lack of qualitative data collection and analysis experience
  - Lack of local research and research management capacity
- Local infrastructure:
  - Challenges reaching participants; procurement of vehicles
  - Internet connectivity is weak, transfer of data
  - Ensuring site security, electricity, ventilation
- Large volume of data

# Lessons learned

- Detailed program theory framework
- Access to qualified staff, connectivity
- Map of the study area
- Plan for results sharing and reports





This presentation is made possible by the generous support of the American people through the support of the Office of Health, Infectious Diseases and Nutrition, Bureau for Global Health, U.S. Agency for International Development (USAID), under terms of Cooperative Agreement No. AID-OAA-A-12-00005, through the Food and Nutrition Technical Assistance III Project (FANTA), managed by FHI 360. The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.



# Evaluation Designs for QI Interventions in Complex Settings

*Pierre M Barker MD*

*Senior Vice President: IHI*

*Clinical Professor: Gillings School of Global Public Health*



# The Current State

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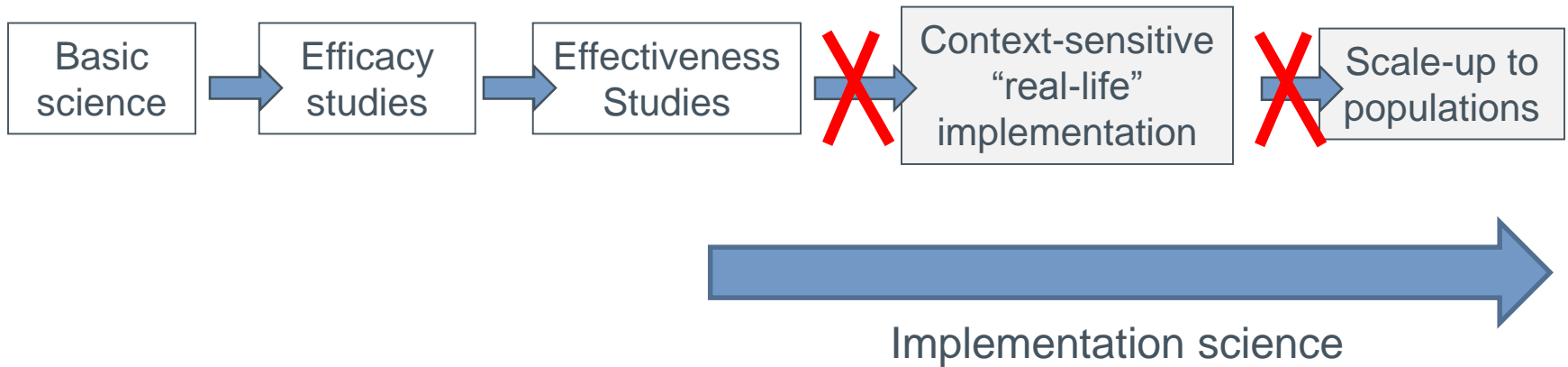
*“4 million women, newborns and children in sub-Saharan Africa could be saved **every year** if well-established, currently available, affordable health care interventions could be implemented across the region”*

*African Academies of Science , Accra, 2010*



# Where is the problem?

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# Quality Improvement: Bringing Together Two Types of Knowledge

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Evidence  
Based Subject  
Matter  
Knowledge  
Protocols/Guidelines  
Clinical Training

the “what”

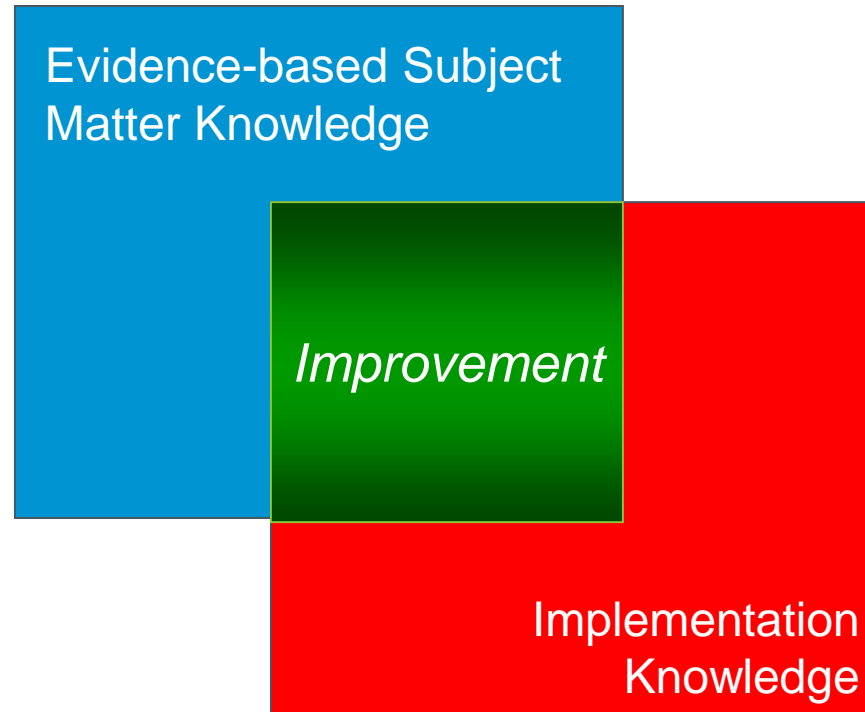
the “how”

Implementation  
Knowledge  
Motivation/Leadership  
Efficient Systems  
Accurate Reflective Data  
Context-sensitive  
learning



# Improvement: Bringing Together Two Types of Knowledge

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# Case Example: PMTCT Scale-up in South Africa

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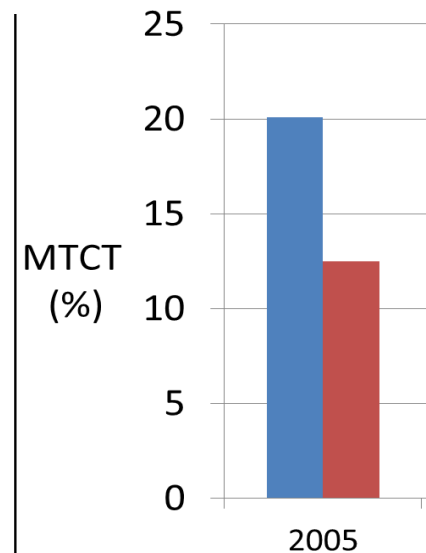


# Implementation and Scale-up of Effective Perinatal PMTCT in 3 Districts (S. Africa)

7

3 Districts,

- pop 5.5 million,
- 202 clinics,
- 18 hospitals



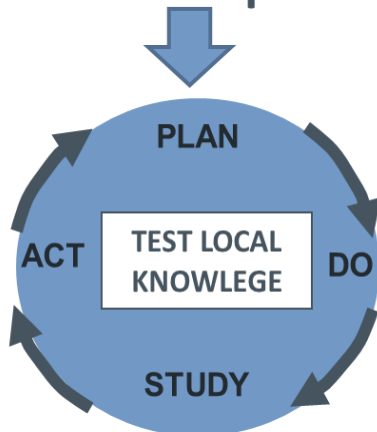
Project Aim:

Decrease MTCT to  $<5\%$   
between 2008 and 2011

# Essential QI Methods



The “Gap”



Generating and testing local solutions  
to close performance gaps



Local leadership



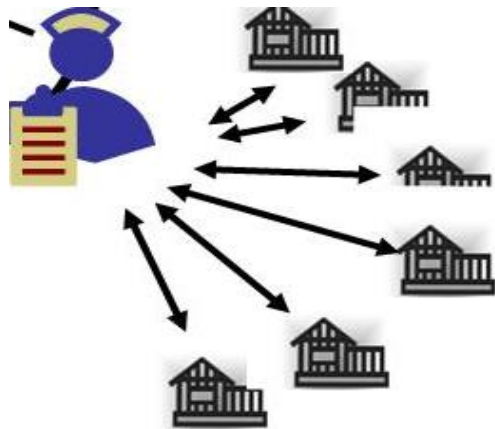
Context-sensitive learning systems  
to accelerate local solutions to  
close performance gaps:

# Implementing and Scaling up PMTCT in 3 Districts of KZN Province South Africa

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## Cluster randomized design

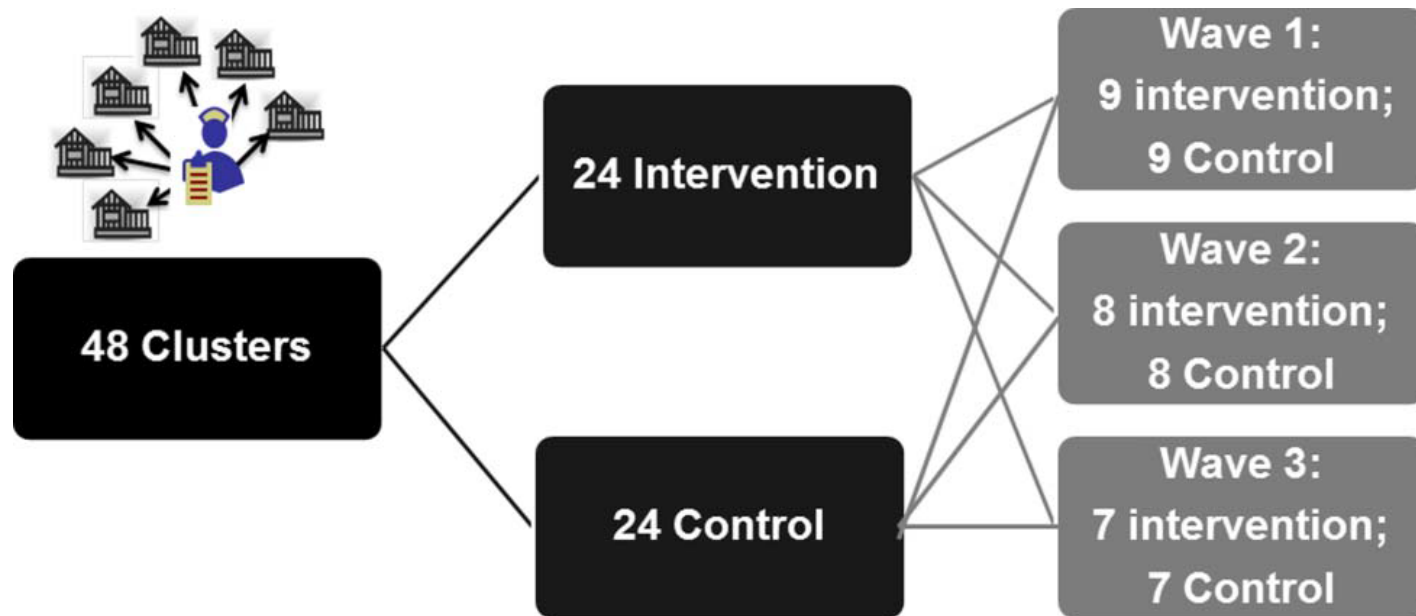
Randomization Unit:  
Nurse supervisor plus  
6 – 10 clinics



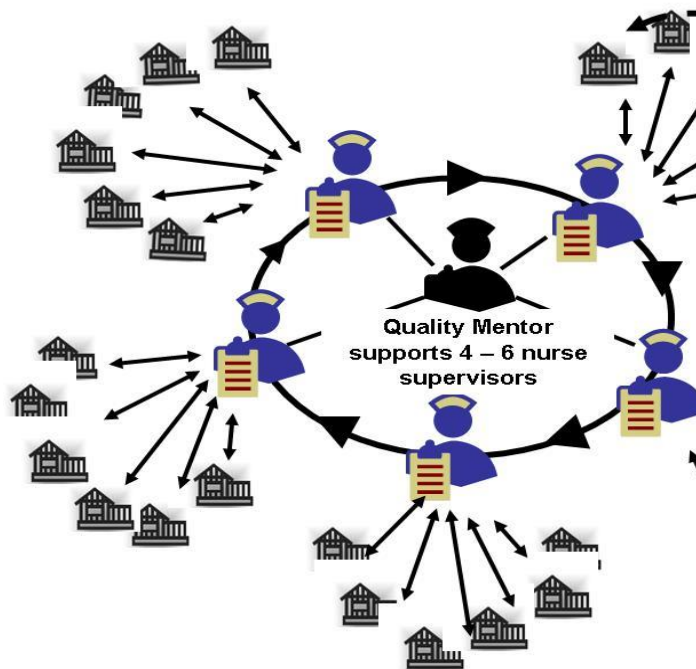
## Research Questions:

1. Could a QI intervention lead to district-wide improvements in PMTCT care and outcomes?
2. Was there added value associated with clinic participation in a Collaborative Learning Networks?

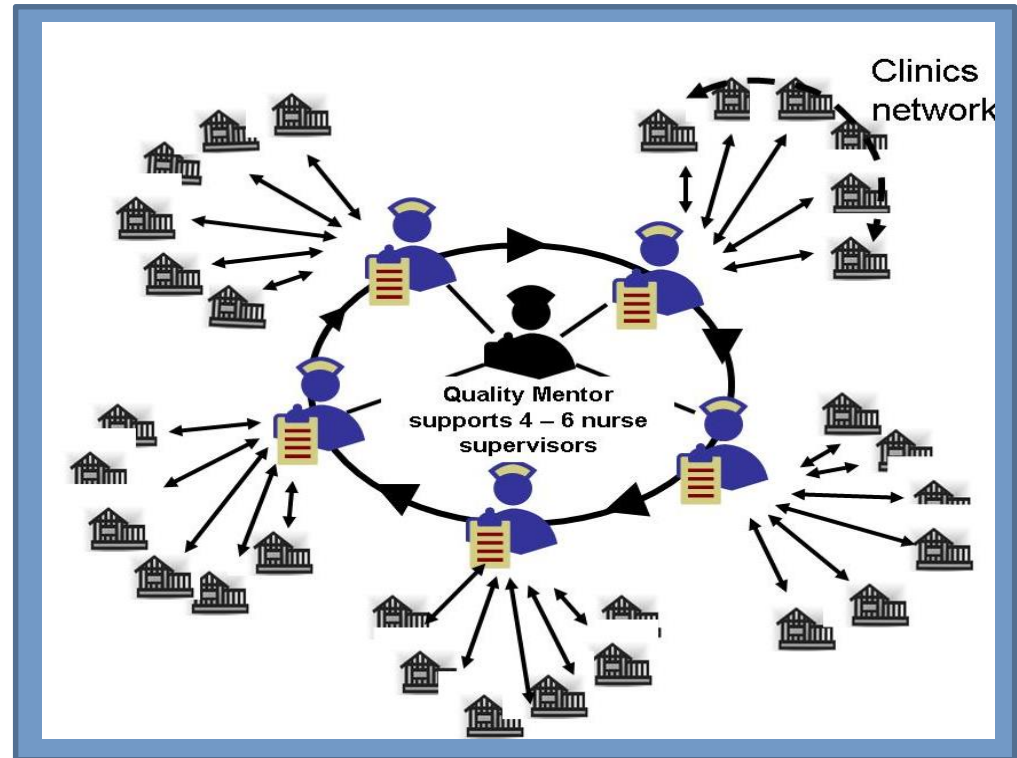
# Cluster Randomization with Step Wedge design



# Cluster Randomized Design



Intervention 1  
QI alone

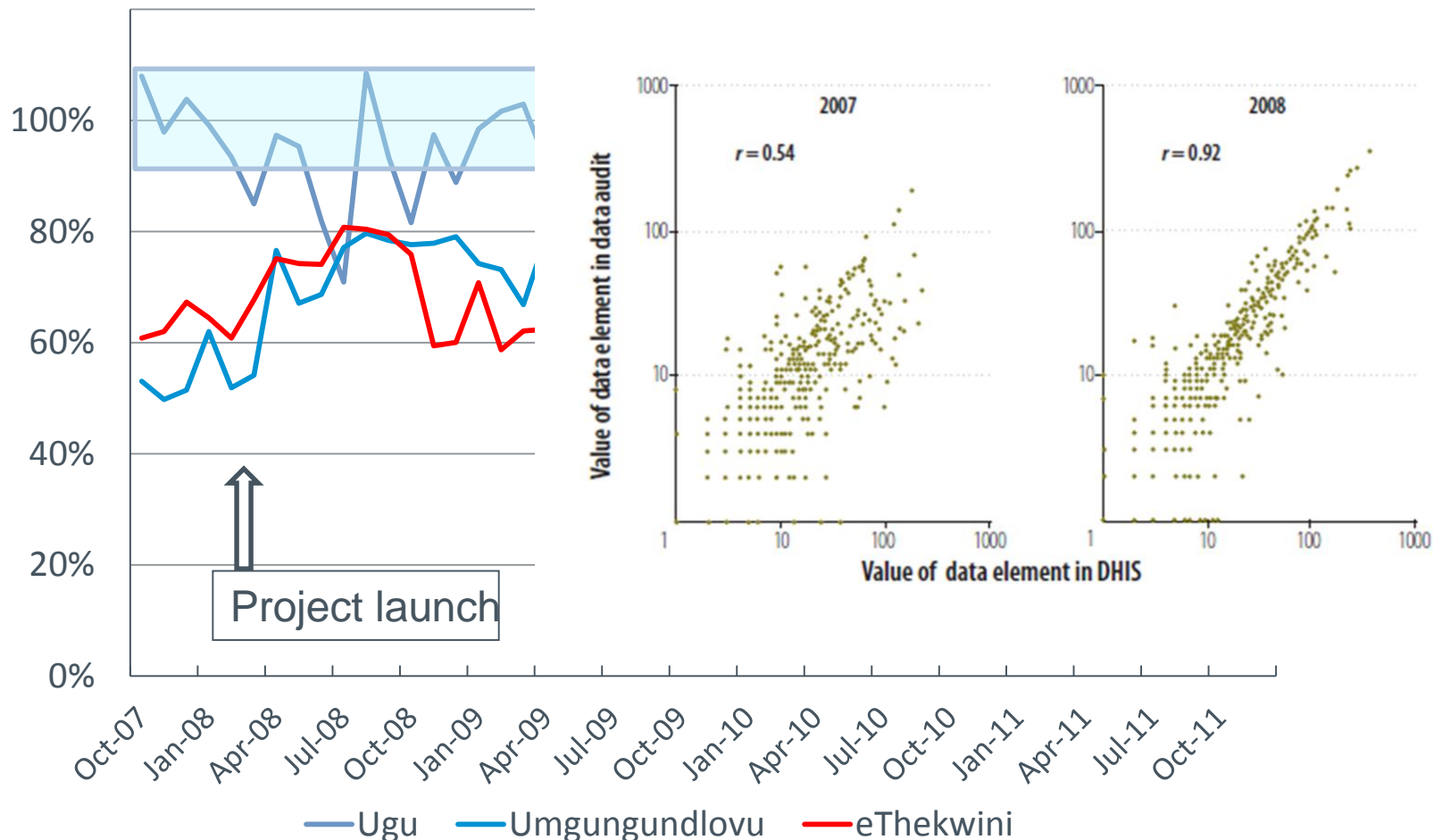


Intervention 2  
QI plus collaborative  
learning network



# 1<sup>st</sup> issue: Can you believe the data?

## Rates of HIV testing of Pregnant Women in Three Districts



## 2<sup>nd</sup> issue: Integrity of fixed protocol

---

- Lack of design flexibility to take account of variation in district leadership abilities
- Design ignored natural referral linkages (usually within sub-district, but often across district borders)
- Unable to adapt design to changing realities (e.g. elimination of nurse supervisor position in one district)
- Randomization forced participation of the “unwilling” and denied participation of the “willing”
- Major impact on study staff morale



# Other Issues

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- Focus of intervention on clinics vs District Management team
- Contamination everywhere (district-wide supports were being improved)
- Multiple external improvements driving change (not just QI)



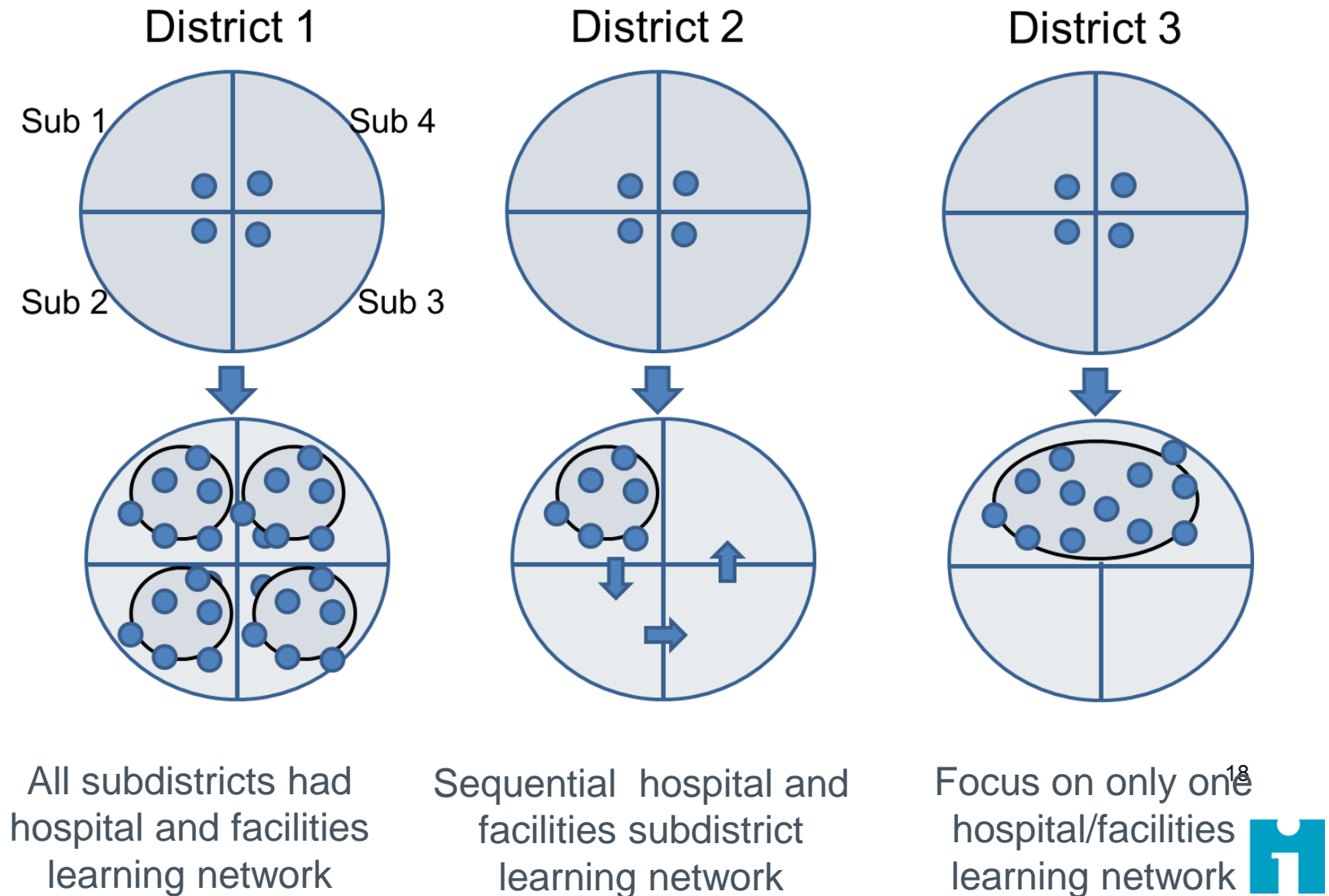
# DSMB Review - Project Reset

---

- RCT abandoned – replaced with adaptive design (different for 3 districts).
- Re-designed “change unit” to account for natural referral patterns
- Pace and design of scale-up adapted to district capabilities
- Closer working relationship with District Managers
- Improved data Feedback system

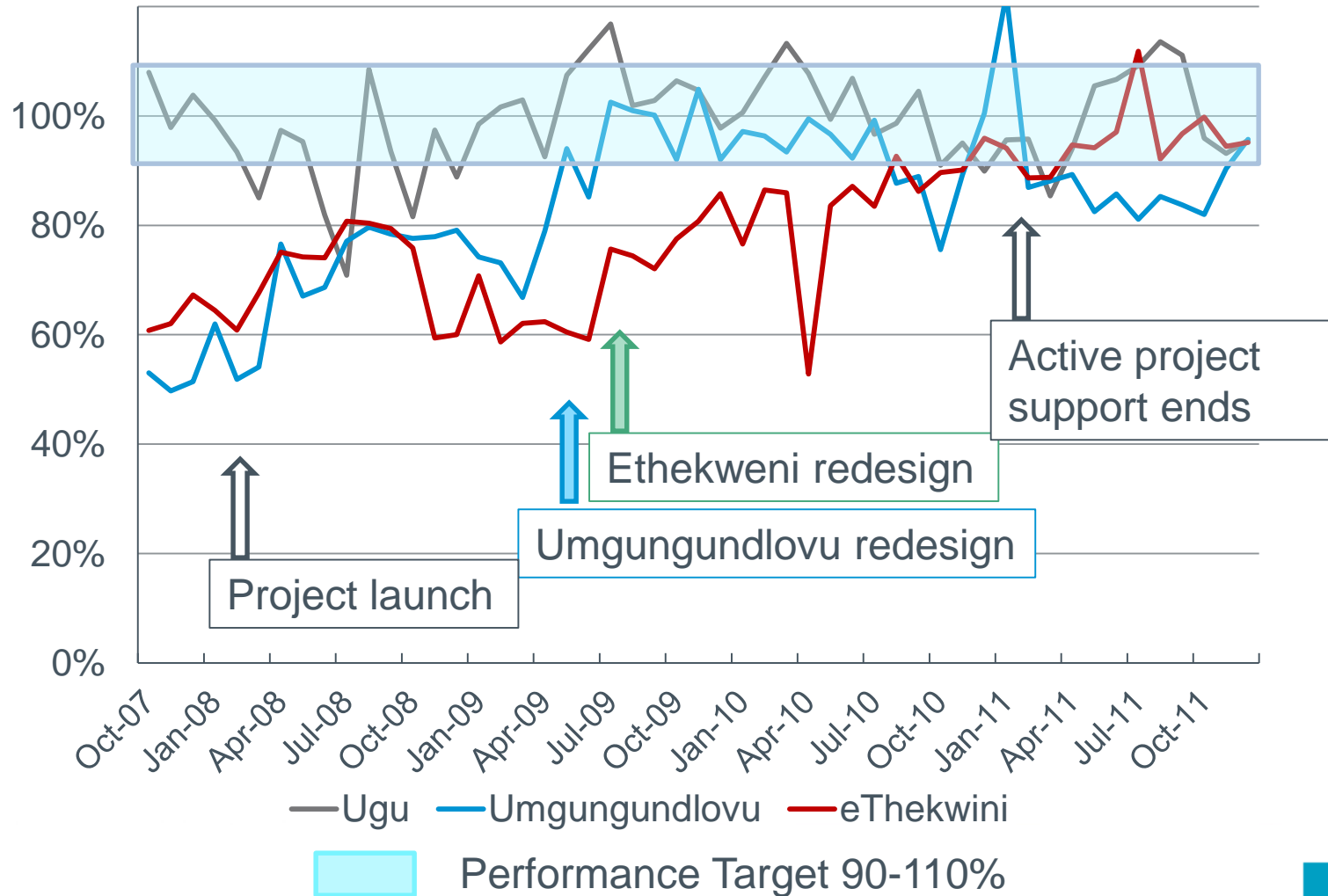


# Project Reset: adaptable design

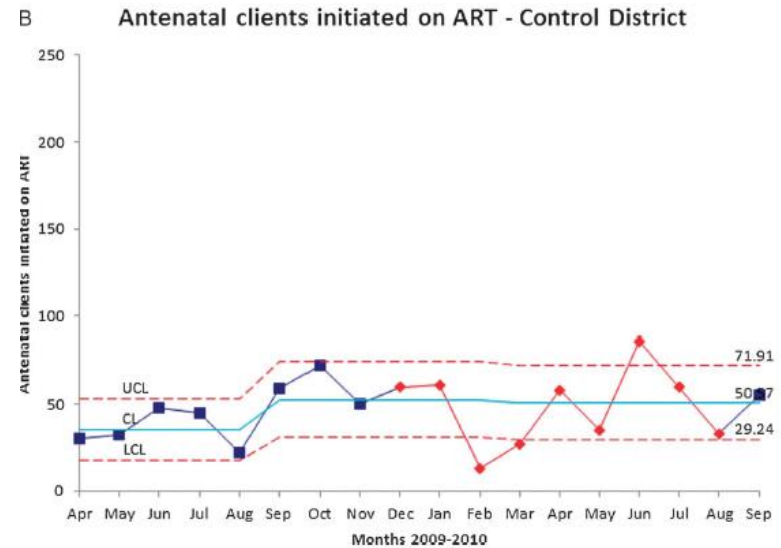
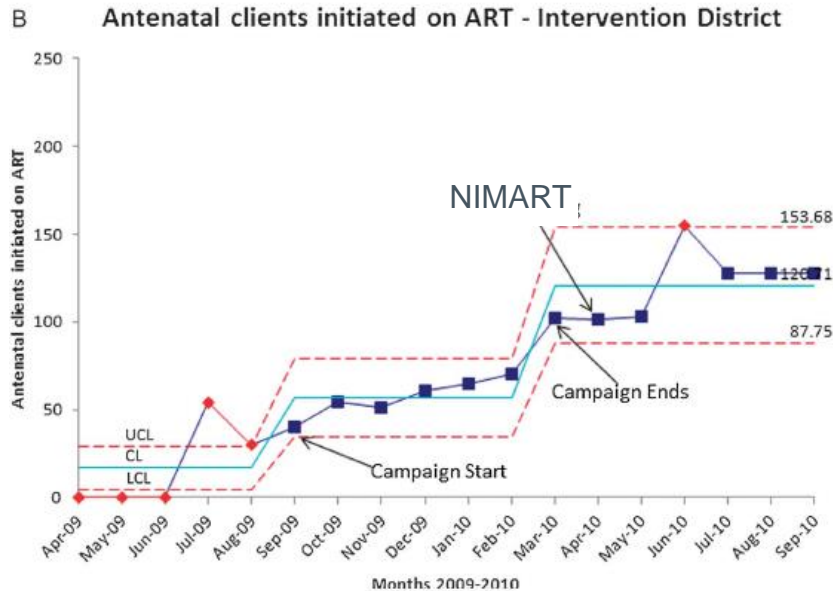


# Adaptive design – 3 districts, 3 designs

Rates of HIV testing of Pregnant Women in Three Districts

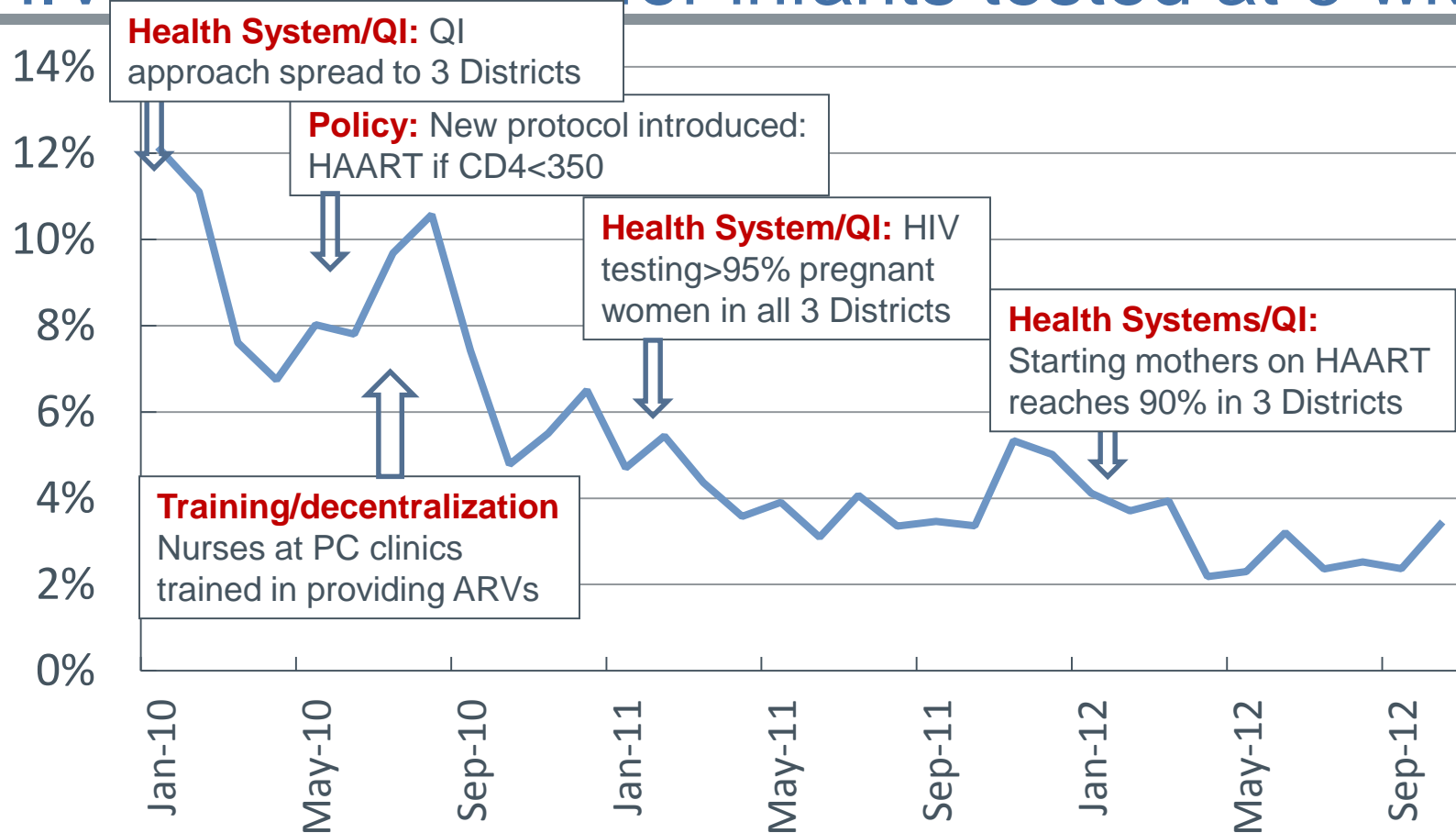


# Using Counterfactuals (whole district comparisons)



Ngidi et al. J Acquir Immune Defic Syndr 2013;63:e133–e139

# Eliminating MTCT: HIV positive rates for infants tested at 6 wks



# Conclusions/Questions

---

- Are cluster randomized designs appropriate for QI studies in complex settings?
- Can/should CRDs be applied within districts?
- Are counterfactuals needed in QI
- Are time-series plus step wedge designs sufficient for QI research in complex settings?
- Was this CRD attempted too early - would it have succeeded with a mature implementation change package?



# A case report of evaluating a large-scale health systems improvement project in an uncontrolled setting: a quality improvement initiative in KwaZulu-Natal, South Africa

Kedar S Mate,<sup>1,2</sup> Wilbroda Hlolisile Ngidi,<sup>3</sup> Jennifer Reddy,<sup>3</sup> Wendy Mphatswe,<sup>3</sup> Nigel Rollins,<sup>3,4</sup> Pierre Barker<sup>1,5</sup>

BMJ Quality  
& Safety

## Conventional evaluations of improvement interventions: more trials or just more tribulations?

Kaveh G Shojania

*BMJ Qual Saf* published online September 27, 2013  
doi: 10.1136/bmjqs-2013-002377

doi: 10.1136/bmjqs-2013-002377  
BMJ Qual Saf published online September 27, 2013

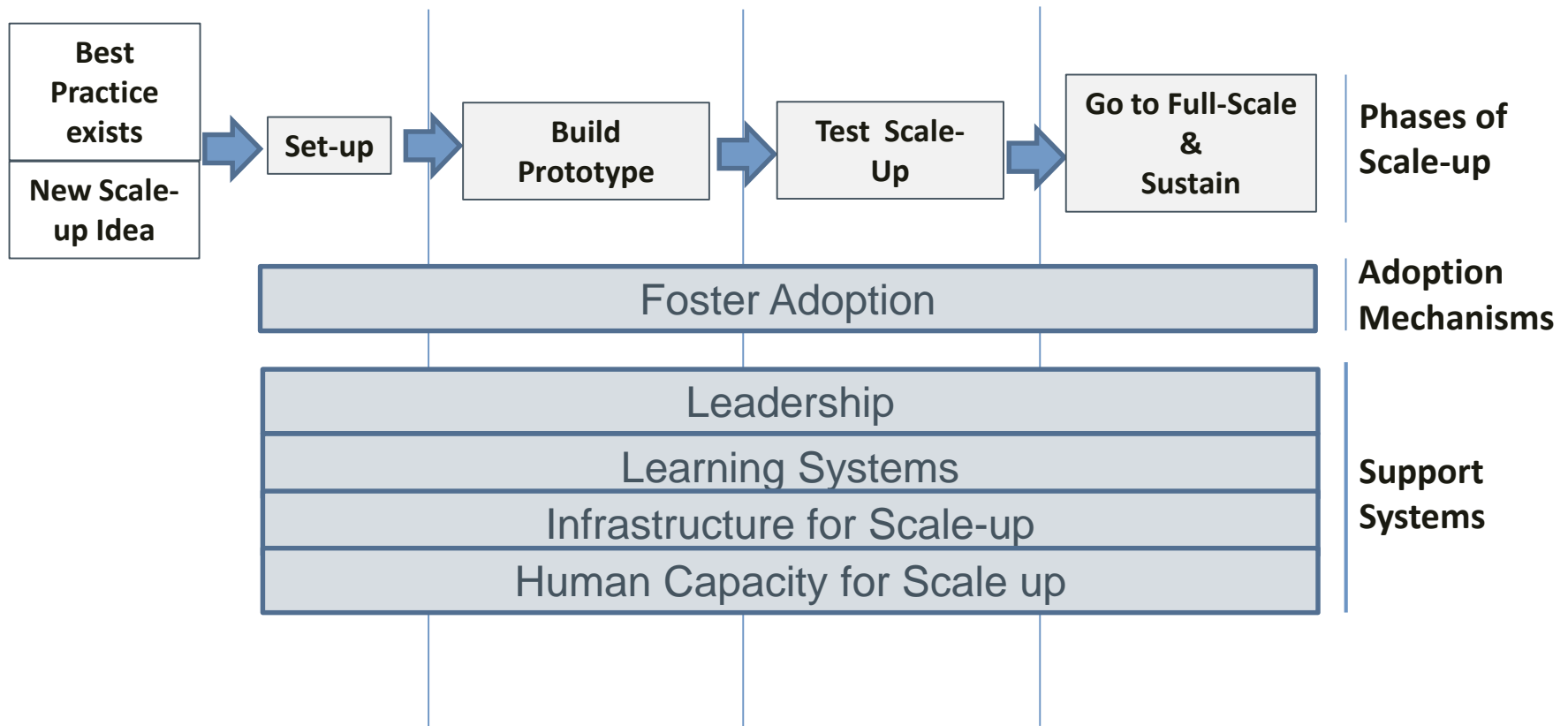


Thank You!



# Implementation and Scale-up Framework

23



# AMDD experience with implementation research: Partners in the Staha Project

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Kate Ramsey

Implementation Science Symposium, FHI360

4 September 2014

# The Staha Project

1. Determine the nature, types, and prevalence of D&A in childbirth
2. Develop and validate tools for assessing D&A
3. Identify and explore the potential drivers of D&A
4. Design, implement, monitor and evaluate the impact of interventions to reduce D&A
5. Document & assess the dynamics of implementing interventions to reduce D&A and generate lessons



**Increase facility-based delivery**

**Reduce the % of women reporting any form of D&A**

**Consensus building on  
norms and standards**

District-  
level  
adaptation  
of charter

Facility-  
level  
adaptation  
of charter

Norms  
and  
standards  
of mutual  
respect

**Multi-level activation of  
mutual respect norms**

District and  
facility  
management  
policy and  
practice  
changes

Facility-  
based QI  
process to  
change  
environment/  
practice

Community-  
driven  
actions to  
support and  
monitor  
system

**Improved outcomes**

**Increased  
mutual  
respect**

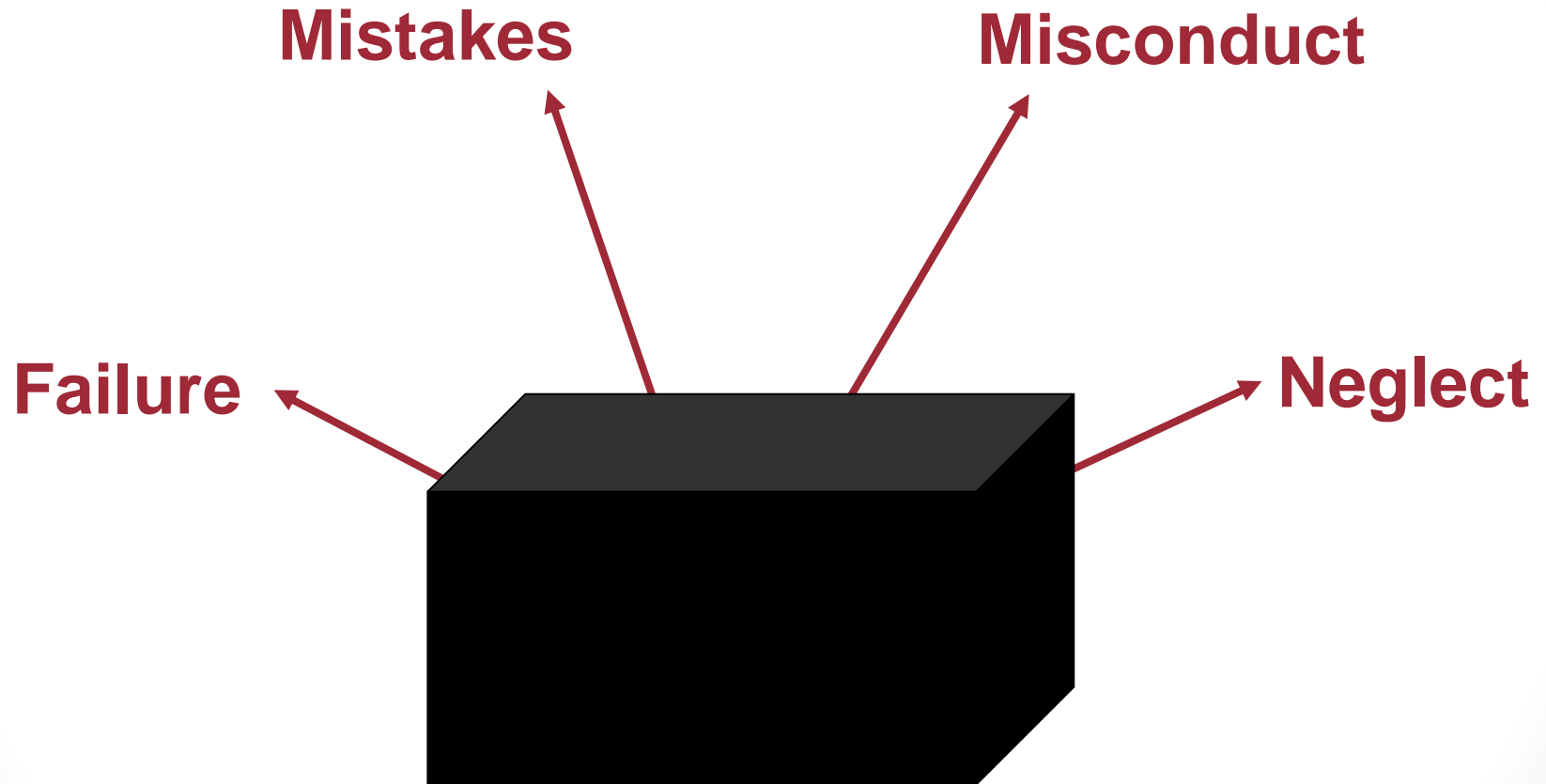
**Increased  
facility-based  
delivery  
Reduced D&A  
during childbirth**

**STAHA CHANGE PROCESS**

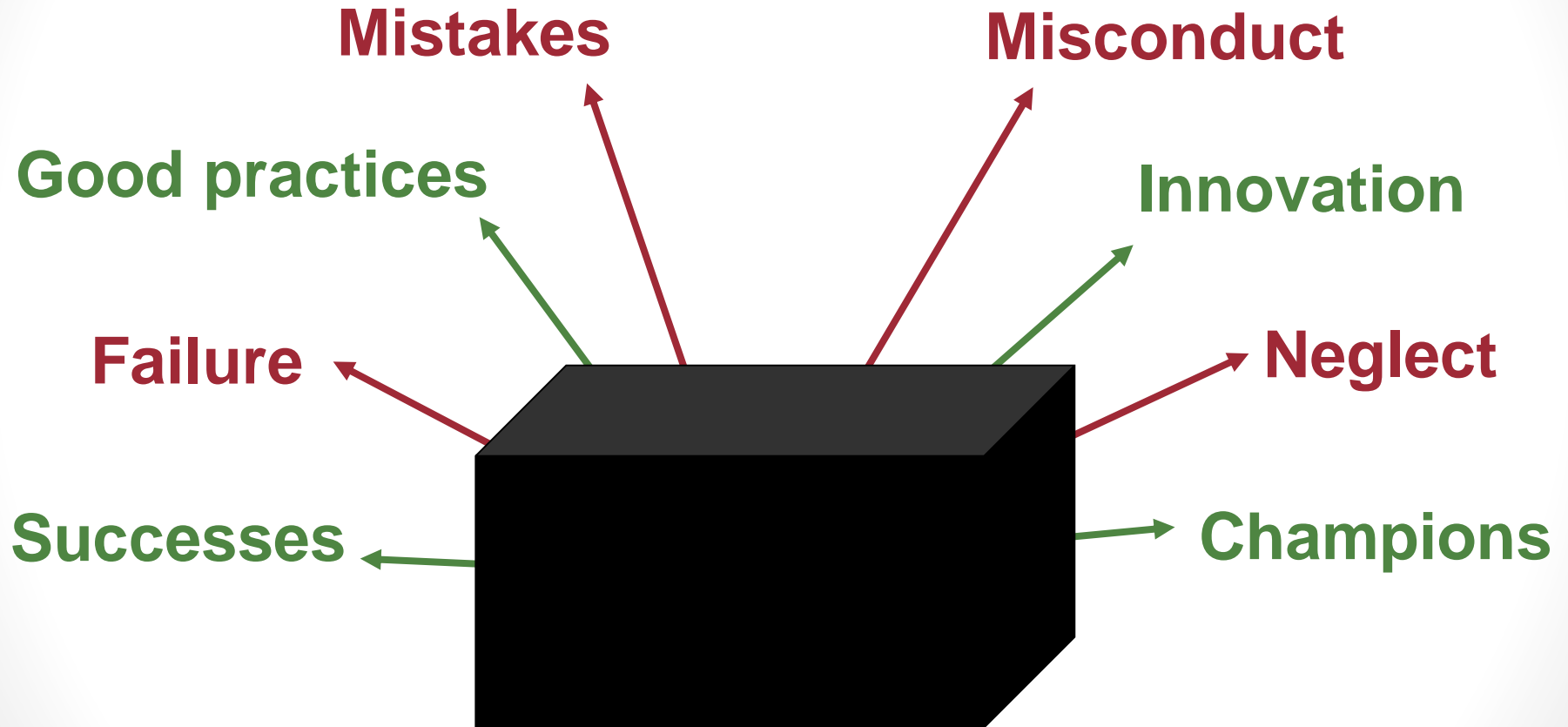
# The Partners

- Ifakara Health Institute (IHI)
- Averting Maternal Death & Disability Program (AMDD), Columbia University Mailman School of Public Health
- Tanzanian health system

# Opening the Black Box



# Opening the Black Box

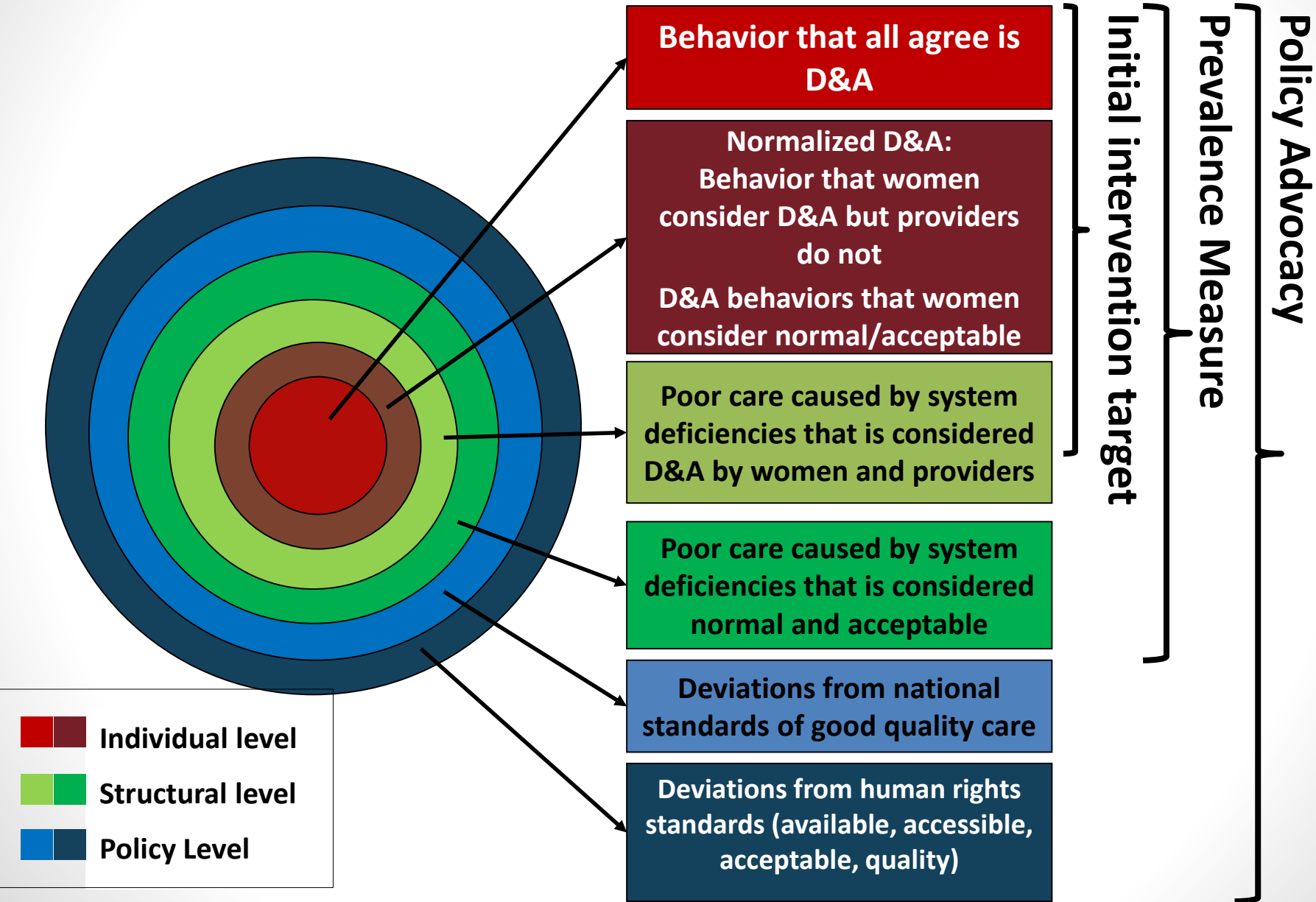


# Norms

**Evidence**

**Values/beliefs around the problem**

# Defining disrespect and abuse in facility-based childbirth



# Structures

**Hierarchy**

**Silos**

# Resources

**Financial**

**Human**

*I know I am talking to you here as researchers but I believe that this message may go further. I would like to request the government to make sure that it implements its policies because ensuring the implementation of its policies is how it gains the trust of the community. But if the government does not fulfill its promises to the community it's obvious that the community will no longer have trust in it.*

Charter Drafting Committee Member, Korogwe

**THANK YOU!**

# Introducing Innovations to Fragile Health Systems: The Case of HIV-Family Planning Service Integration

Theresa Hoke, PhD, MPH  
Director, Health Services Research  
FHI 360



# Health System Building Blocks

---

**Service Delivery**

**Health Workforce**

**Medical Products**

**Information**

**Leadership and  
Governance**

**Financing**



# PEPFAR BLUEPRINT:

CREATING AN AIDS-free GENERATION



*“Optimize PEPFAR as a platform to incorporate and integrate other essential health services for women, including the integration of HIV and family planning (FP) services....”*

- Articles on 2 trials testing service delivery interventions
- Systematic review of 12 additional studies
  - 5 of 12 studies conducted in context of clinical trials
  - Only 5 articles reported process data



# Promoting long-acting and permanent methods to PMTCT clients in Cape Town

- PEPFAR-funded provider training in FP for HIV+ women
- Training: IUD insertion
- Coaching
- Counselling aids
- IUD insertion equipment
- Reinforced referrals for sterilization



# Results: Survey with Postpartum PMTCT Clients

	Pre-intervention (n=265) %	Post-intervention (n=266) %
Desire future pregnancy	11	15
<b>CURRENT METHOD AMONG FP USERS</b>		
IUD	0	<1
Sterilization (F)	7	9
Condoms (M/F)	6	12
Injectables	86	86
<b>PROVIDER HAS TALKED TO YOU ABOUT...</b>		
IUD	4	13
Female sterilization	28	36

# Intervention Tracking Tool

Intervention components as planned	Activities as actually implemented	Contributions of individuals and organizations	Considerations for replication/expansion
INTERVENTION COMPONENT 1			
Activity			
Activity			
Activity			
INTERVENTION COMPONENT 2			
Activity			
Activity			
INTERVENTION COMPONENT 3			
Activity			
Activity			

# Process Evaluation Findings

- Training providers to provide new methods was challenging
  - Inadequate foundation of FP knowledge
  - Incomplete participation in classroom sessions on the IUD
  - Low client recruitment for on-the-job practicum
  - Some providers lacked confidence to counsel on sterilization
- Training not reinforced with changes to service delivery procedures
- Routine supervisory system inadequate
- Coaching: Some providers were not inclined to take on additional responsibilities

# Promoting Family Planning Use by Care & Treatment Clients through Constructive Male Engagement

- Provider training:
  - ❖ FP for HIV+ women
  - ❖ Gender
- Mentoring
- Clinic adjustments
  - ❖ To accommodate FP counselling
  - ❖ To engage men
- Counseling flipbook



## Results: Survey with Care & Treatment Clients (Intervention Group)

	Pre-intervention (n= 416) %	Post-intervention (n=330) %
Desire future pregnancy	31	31
<b>CURRENT FP USE</b>		
Dual method use	13	14
FP method other than condoms	56	49
<b>SERVICES RECEIVED</b>		
Provider talked about FP	18	35
Offered couple's counselling on FP	30	43

# Process Evaluation Findings

---

- Learning needs surpassed time allotted for training
- Need for ongoing mentoring greater than anticipated
- Commodity stock-outs
- High client volume and health worker shortage
- Low morale

# WHO Health System Building Blocks

---

**Service Delivery**

**Health Workforce**

**Medical Products**

**Information**

**Leadership and  
Governance**

**Financing**

# Recommended targets for future research on HIV-FP integration

<b>Service Delivery</b>	<b>Improve client flow</b>
<b>Health Workforce</b>	<b>Motivate providers</b>
<b>Medical Products</b>	<b>Reinforce commodity management</b>
<b>Information</b>	<b>Track performance</b>
<b>Leadership and Governance</b>	<b>Translate policy guidance into performance expectations</b>
<b>Financing</b>	<b>Deliver services in a way that's affordable to facilities and clients</b>



# IMPLEMENTATION SCIENCE AND FAMILY PLANNING AND REPRODUCTIVE HEALTH: CHALLENGES AND OPPORTUNITIES

**Laura Reichenbach,**  
**Deputy Director for Research, Evidence Project**

**Implementation Science in Global Health: Maximizing Impact in an  
Imperfect World**  
**September 4, 2014**



**USAID**  
FROM THE AMERICAN PEOPLE



# 5 + 5 Project on Implementation Science to Improve FP/RH

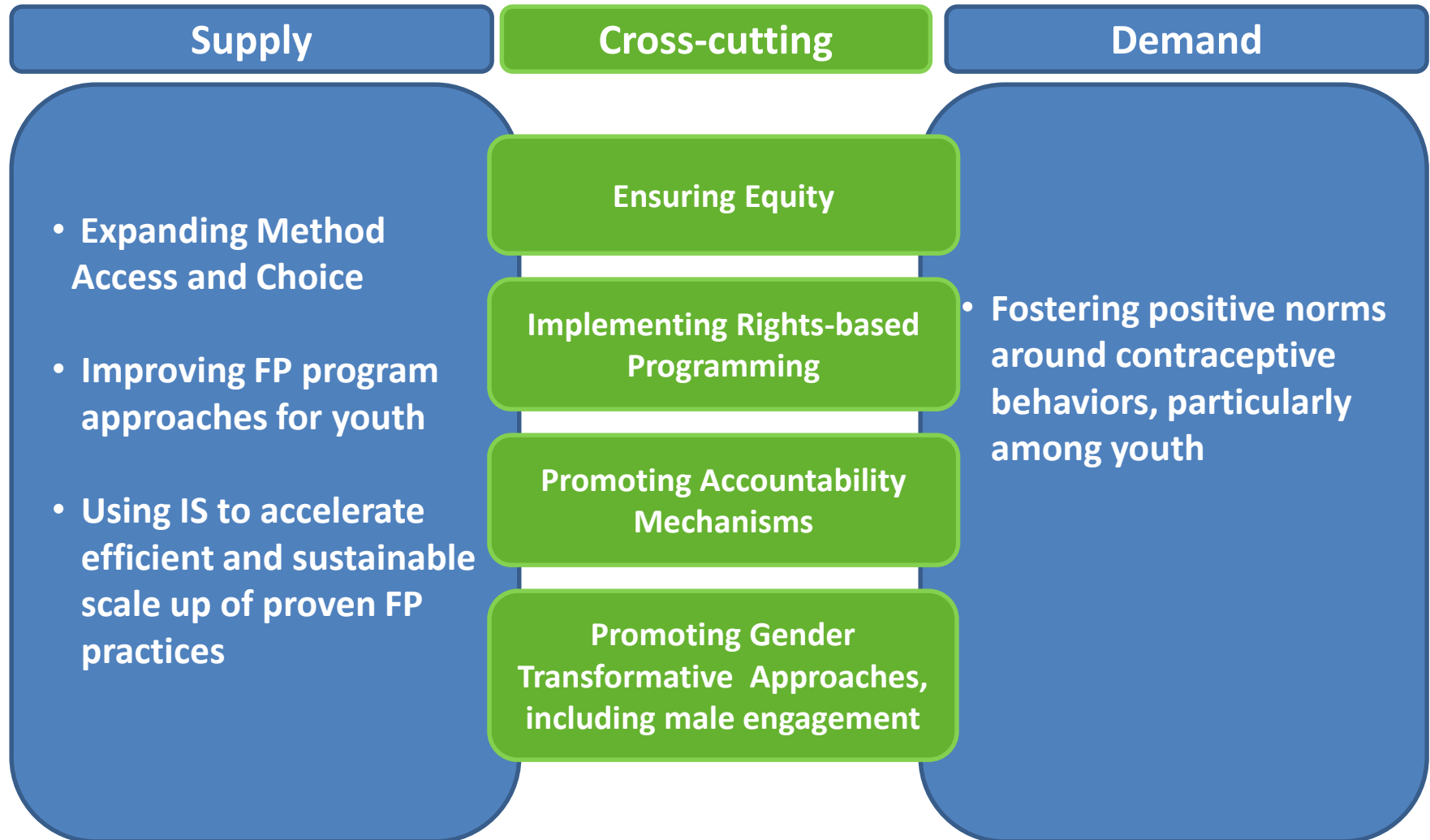


**With a University Research Network:**  
*Columbia, Washington, LSHTM*



# The Evidence Project

## Conceptual Framework of Implementation Science (IS) Priorities



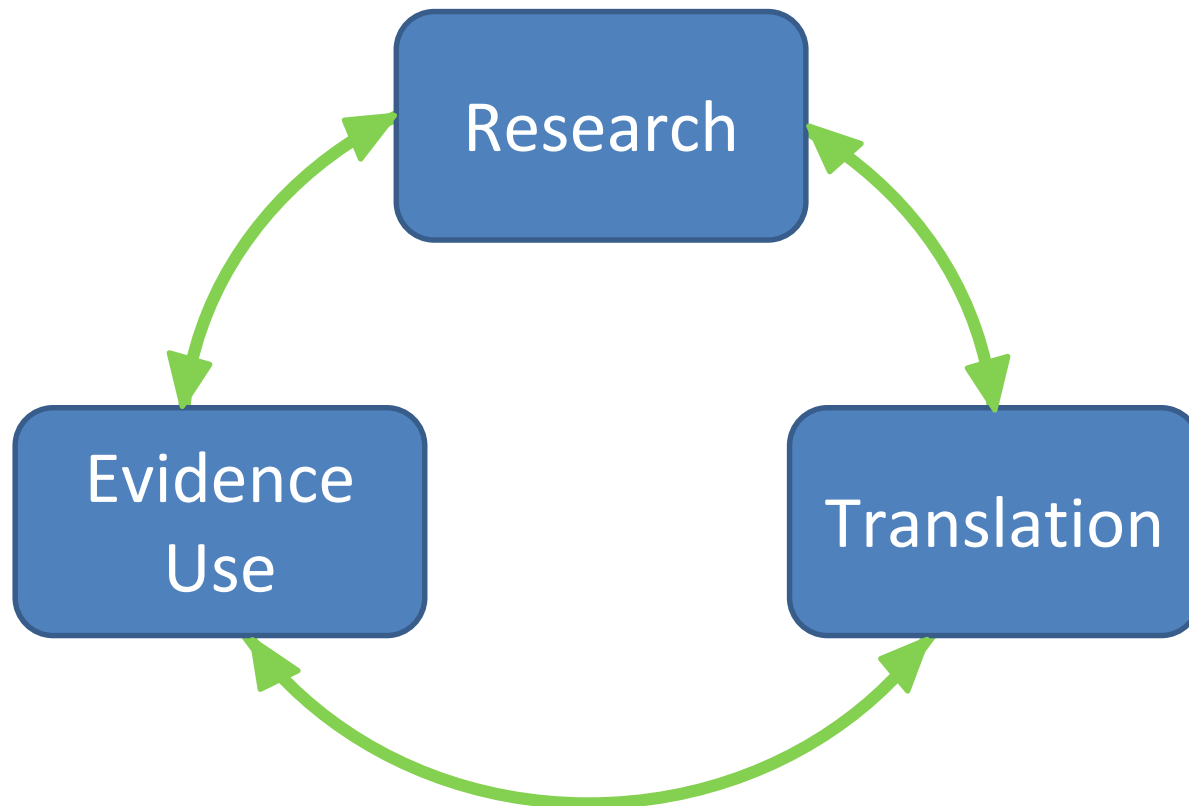
**USAID**  
FROM THE AMERICAN PEOPLE



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# Implementation Science

*“Application of systematic learning, research and evaluation to improve health practice, policy and programs”* (USAID, GH, n.d.)



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# IS Challenges and Opportunities

- Research protocol development
- Evidence utilization
- Scale up
- Capacity building and local ownership

---

# IS Challenges and Opportunities

- **Research protocol development**
- Evidence utilization
- Scale up
- Capacity building and local ownership

# Research protocol development

**Challenge of studying  
Implementation**

What is the state of the science?

Need for repository of examples

What are the practical linkages  
with program M&E?

Specify in protocol development

Engage stakeholders in protocol  
development

Need for models and examples

**Data utilization**

---

# IS Challenges and Opportunities

- Research protocol development
- **Evidence utilization**
- Scale up
- Capacity building and local ownership

# Selected USAID-funded FP/RH Projects with a Focus on Evidence Generation and/or Use (over 3 decades)

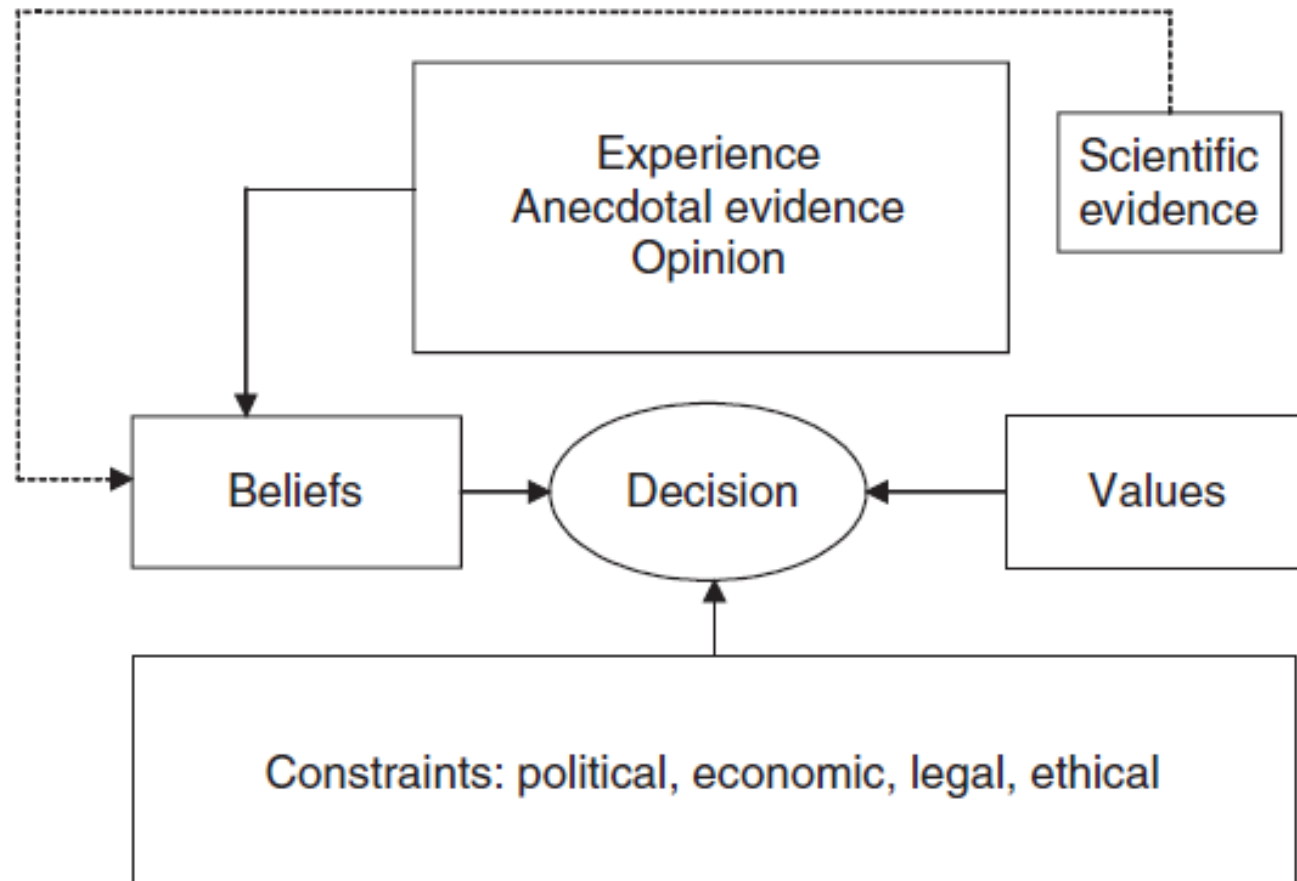
- FRONTIERS (Operations Research)
- MORE (Maximizing Results of OR)
- Data for Decision-making
- E2A Project (Evidence to Action)
- MEASURE Evaluation (data demand and use)
- PROGRESS in Family Planning
- The Evidence Project (evidence generation, translation and use)



**OPERATIONS  
RESEARCH**  
Helping Family Planning  
Programs Work Better



# Conceptual Framework of the Role of Evidence in Decisionmaking



Source: Cookson, 2005.

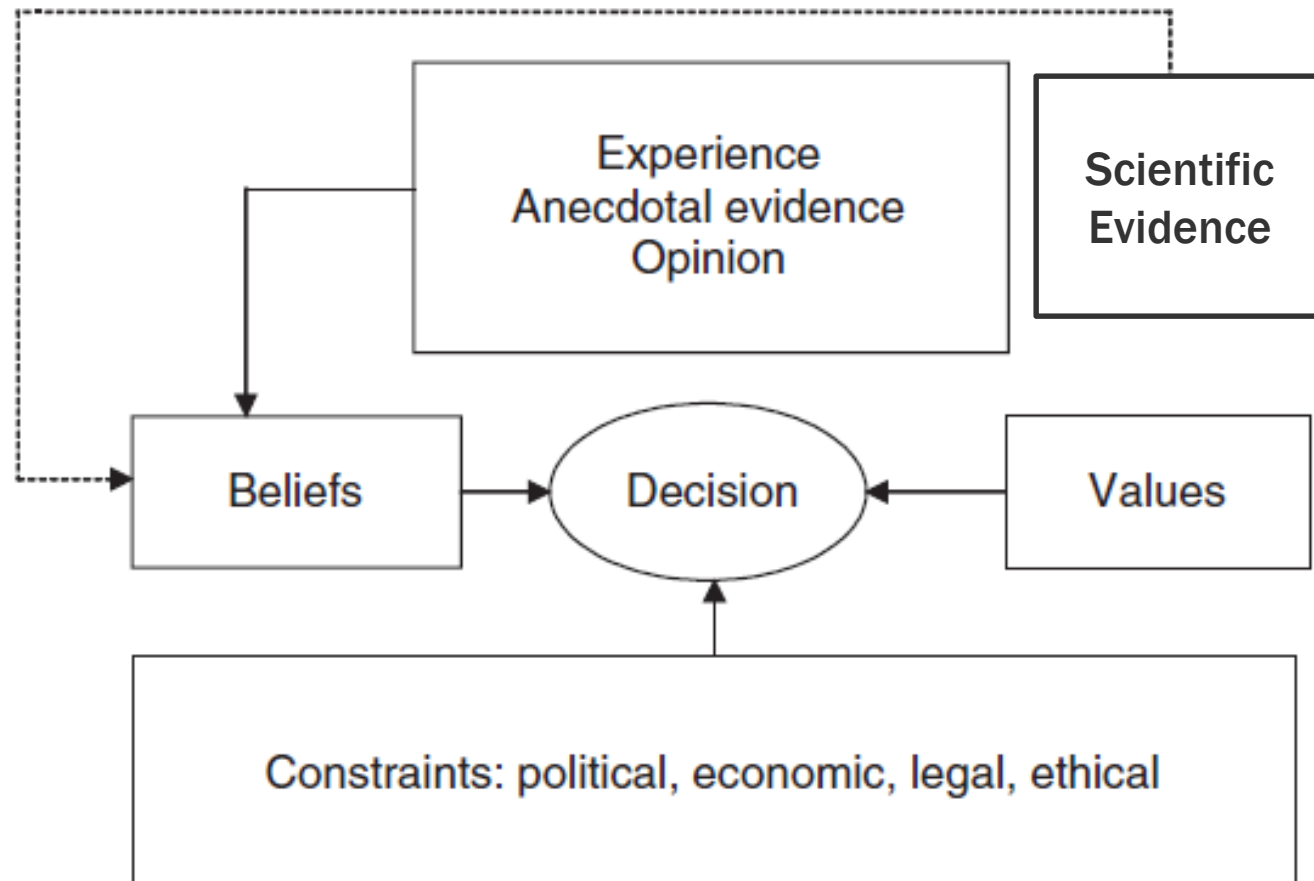
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# Synthesis on evidence use

What do we mean by evidence and what evidence is there that evidence is used in decision-making?

How can we make sure that research evidence plays a bigger role in decision-making vis a vis other factors?

# Conceptual Framework of the Role of Evidence in Decisionmaking



Source: Cookson, 2005.

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# IS Challenges and Opportunities

- Research protocol development
- Evidence utilization
- **Scale up**
- Capacity building and local ownership

## Research Gaps in Scale Up of Family Planning and Reproductive Health Programming

June 23, 2014



## Key Research Questions for Scale Up

- What are facilitating factors to scale up?
- What characteristics of implementation foster its success for scale up?
- What health systems and contextual factors are essential to scale up?
- How can we achieve scale at a faster pace?

# IS Challenges and Opportunities

- Research protocol development
- Evidence utilization
- Scale up
- Capacity building and local ownership

# NEW DIRECTIONS IN IS AT USAID

Joseph F. Naimoli  
Health Systems Research Advisor  
Office of Health Systems  
USAID

Implementation Science Course,  
Washington

August 8, 2014

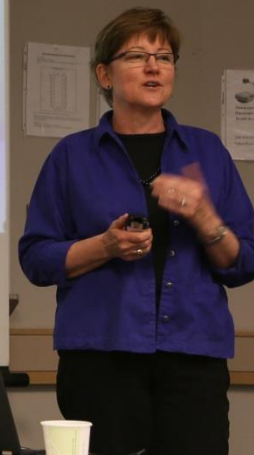


## ROLE OF EVIDENCE IN POLICIES, PROGRAMS & PRACTICES

Karen Hardee, Project Director

Intensive Course on Implementation Science for  
Family Planning and Reproductive Health  
UW, Seattle WA

August 4-15, 2014





# Capacity building and local ownership

- **Intensive course in IS for Family Planning and Reproductive Health**
  - Whose capacity? In what?
  - Build on legacy of existing work
  - Consider new models and approaches
- **How to foster local ownership?**
  - Time constraints
  - Capacity issues
  - Requires continued investment and commitment

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# IS Opportunities

- Research protocol development
- Evidence utilization
- Scale up
- Capacity building and local ownership

# THANK YOU

The Evidence Project is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of cooperative agreement no. AID-OAA-A-13-00087. The contents of this presentation are the sole responsibility of the Evidence Project and Population Council and do not necessarily reflect the views of USAID or the United States Government.

The Evidence Project seeks to expand access to high quality family planning/reproductive health services worldwide through implementation science, including the strategic generation, translation, and use of new and existing evidence. The project is led by the Population Council in partnership with the INDEPTH Network, the International Planned Parenthood Federation, Management Sciences for Health, PATH, and the Population Reference Bureau.



# IMPLEMENTATION RESEARCH

Gina Dallabetta  
Senior Program Officer, HIV/Integrated Delivery

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FHI 360 Meeting  
September 4, 2014

## OVERVIEW OF PRESENTATION

- Examples of foundation work
- Deep dive into one example, Avahan
- Concluding remarks



# IMPLEMENTATION RESEARCH AT THE FOUNDATION

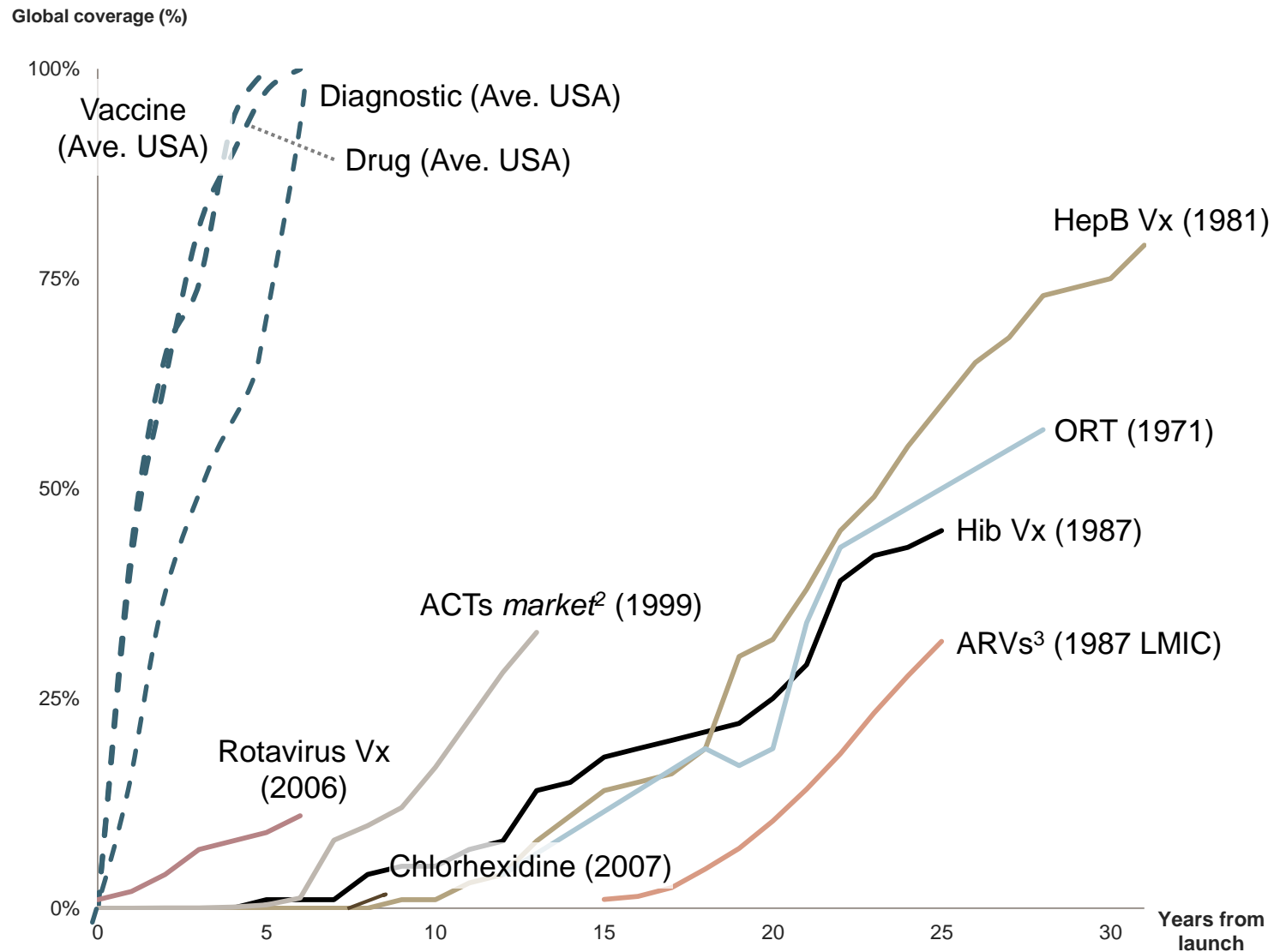
**Foundation does not classify grants as Implementation Research**

**Wide variety of opinions regarding Implementation Research (very informal survey)**

- *“My experience is that much of what is being called implementation science is really just process evaluation of health interventions. It is actually disappointing to see that many of the counterfactual-based methods used in health are ignored once a question moves into the “implementation” realm.”*
- *“Is it the same as operations research?”*
- *“It is implementation analysis to inform and guide the scale up of programs.”*

# THE FOUNDATION IS FOCUSED ON CHALLENGES OF SCALE FOR IMPACT AND DELIVERY COVERAGE OF NEW TECHNOLOGIES

- “Existing interventions have potential to cost effectively avert most neonatal and maternal deaths. The barriers that are preventing these life-saving interventions from reaching people who need them are primarily implementation barriers and often not technical barriers.”
- “Life-saving drugs and vaccines, and diagnostic tools are expensive in the developing world, can take years to introduce, and are difficult to make widely available.”



Product launch year is shown in parentheses. LMIC = Lower- and middle- income countries

# SOME EXAMPLES OF FOUNDATION GRANTS ADDRESSING SCALE

- Malaria Control and Elimination Partnership in Africa (MACEPA)
- Better Immunization Data (BID)
- Demand creation for Voluntary Medical Male Circumcision (VMMC)
- Reduction of Maternal and Infant Mortality in Bihar (Ananya)
- Reducing infant mortality through Kangaroo Mother Care



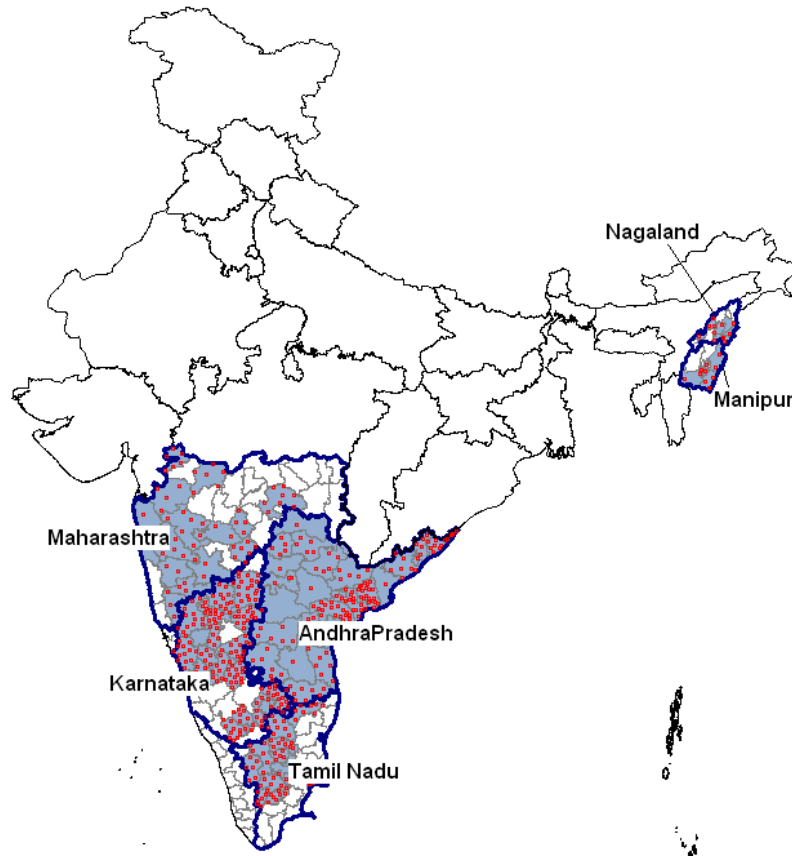
## OVERVIEW OF PRESENTATION

- Examples of foundation work
- Deep dive into one example, Avahan
- Concluding remarks

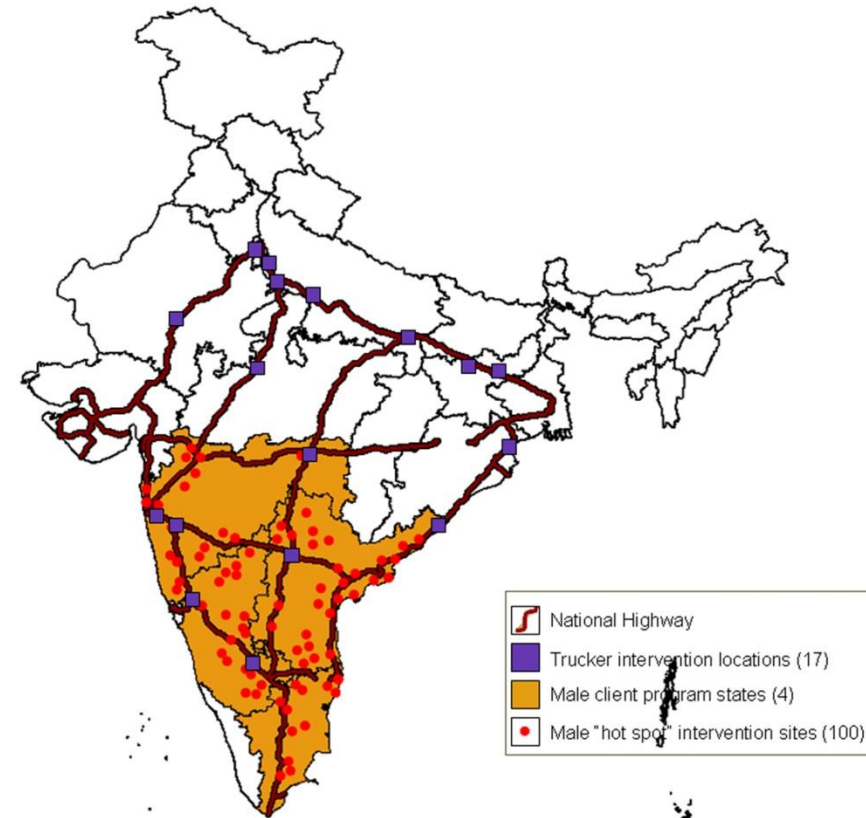
# AVAHAN I- SNAPSHOT

6 states, 82 districts  
Combined State Population  
~ 300 million  
High risk groups covered  
FSW – 220,000  
MSM / TG – 80,000  
PWID – 18,000  
Men at risk – 5 million

## High risk groups

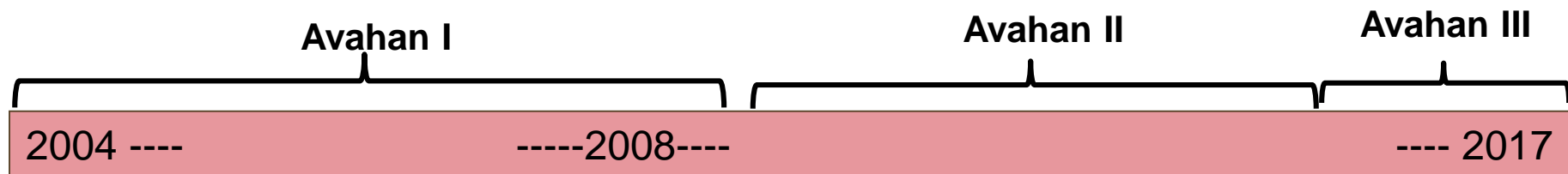


## Men at risk



Investment:  
US\$ 235 million

# AVAHAN'S GOALS OVER A 13 YEAR PERIOD



## **Build / Operate HRG prevention program at scale**

- Demonstrate program at scale with coverage, quality
- Document declining HIV infection trends in core, bridge, general population

## **Transfer program to government, other stakeholders, communities**

- Sustain funding / management without program disruption
- Strengthen communities to sustain transition post-handover

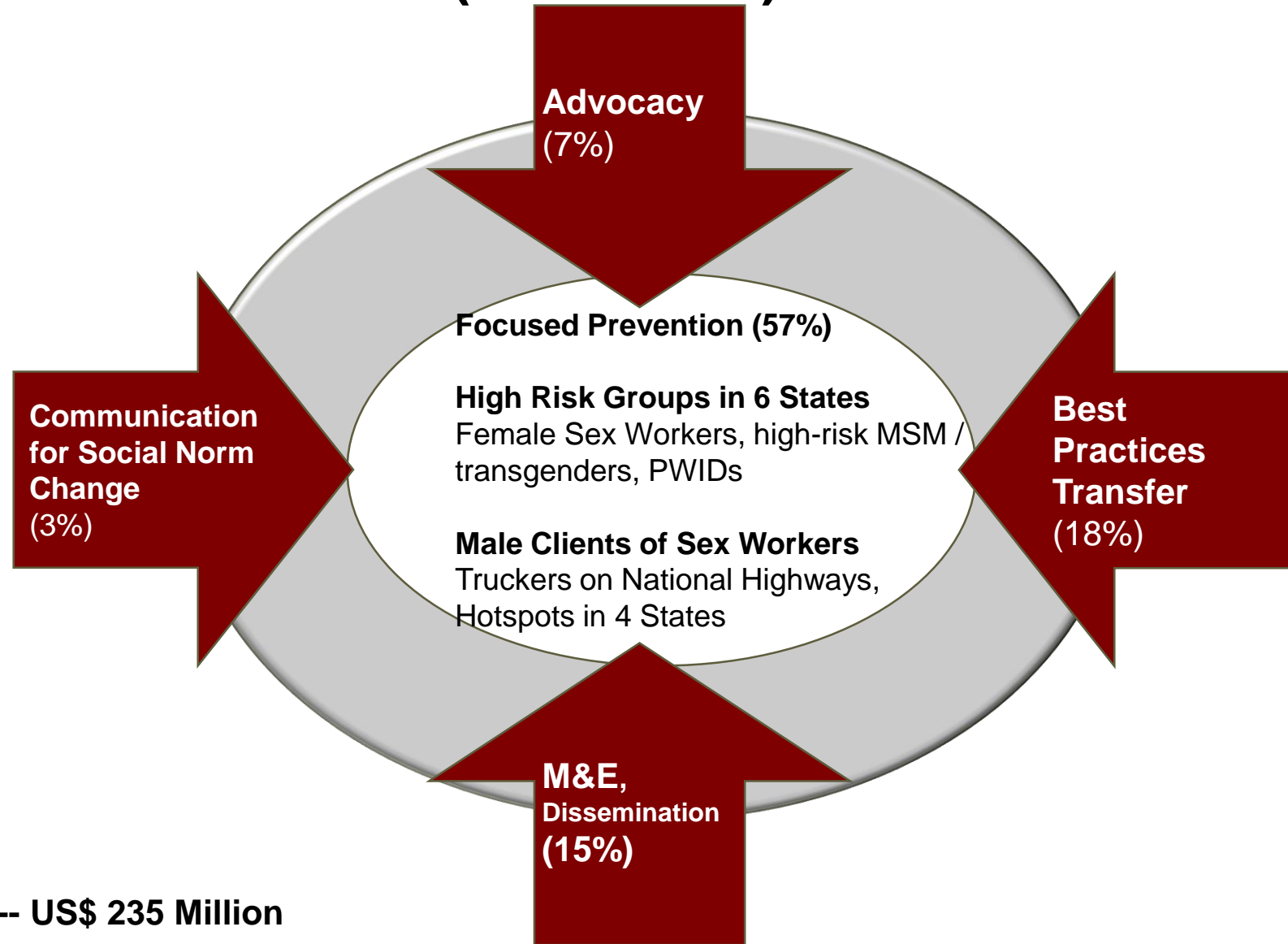
## **Disseminate learnings**

- Actively foster opportunities for creating learnings from Avahan
- Disseminate learnings through a wide variety of mechanisms and fora

## **Sustainable communities**

- Strengthen CBOs to sustain strong HIV response

# PHASE I DESIGN (2003-2009)

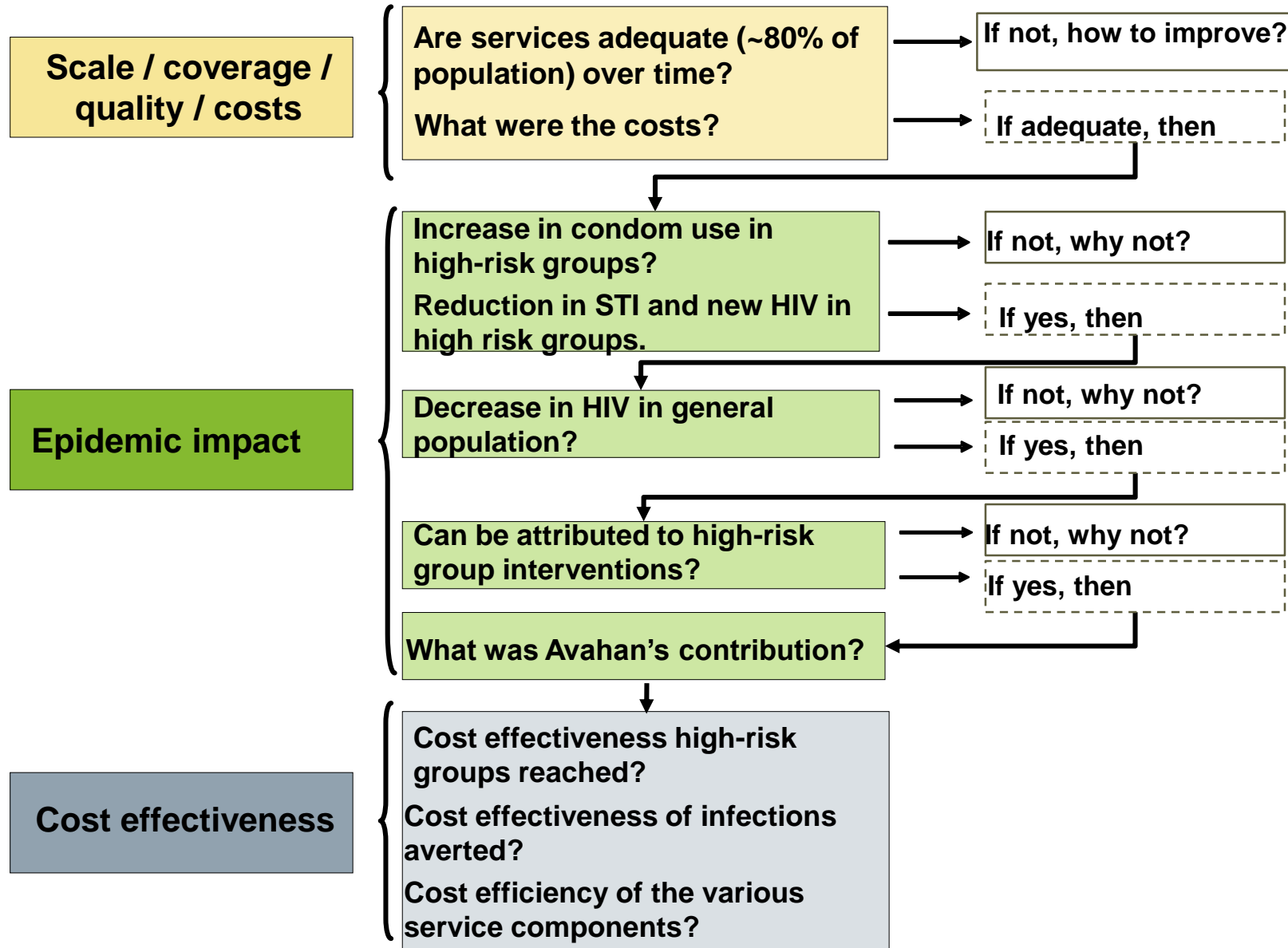


## The Prevention Package

- Outreach, Behavior Change Communication
- Commodities (condoms, lubricants, needles)
- Clinical services for STIs + counseling
- Case managed approach to referral - TB, HIV testing, ART
- Local advocacy – police sensitization, crisis response, community advisory committees
- Community mobilization

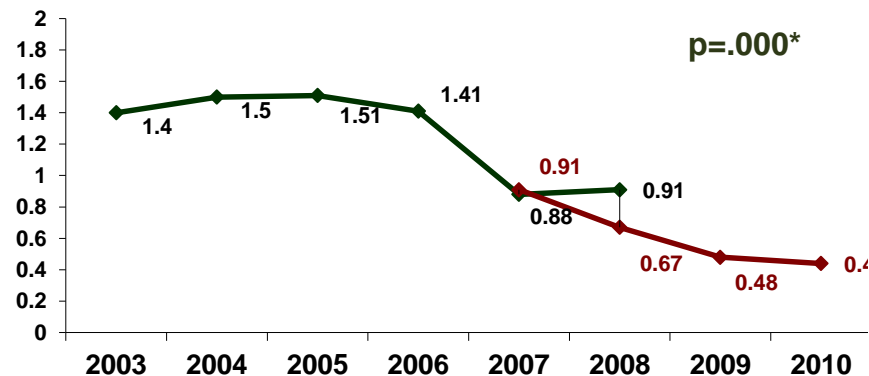
100% -- US\$ 235 Million

# AVAHAN IMPACT EVALUATION QUESTIONS

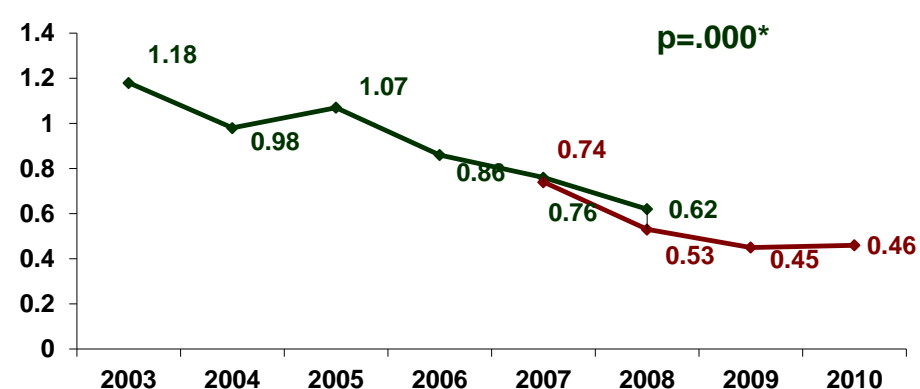


# Declines in HIV prevalence in ANC clinics in four southern states \*

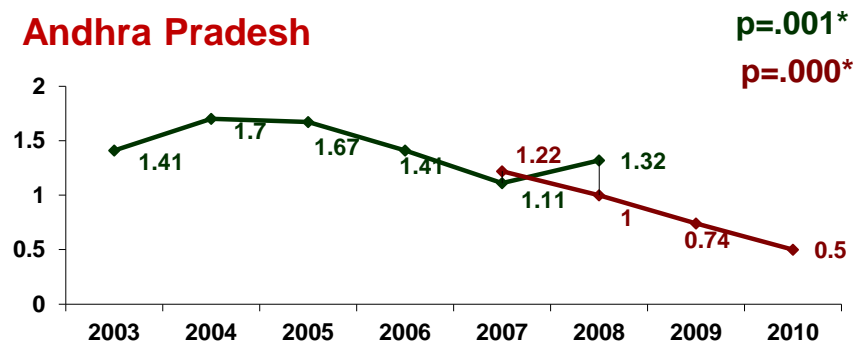
## Karnataka



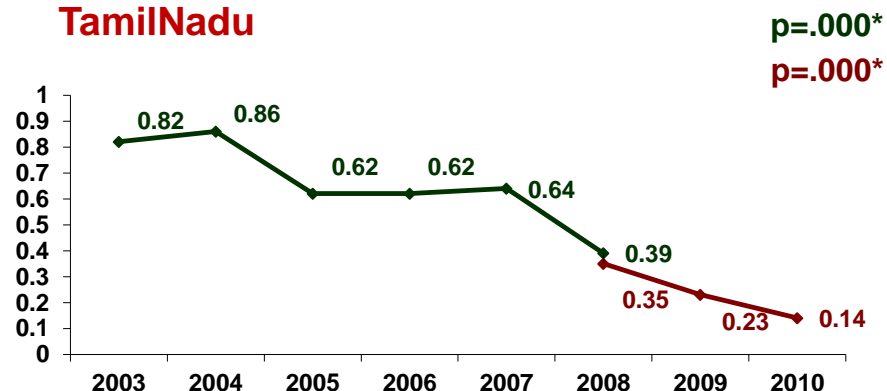
## Maharashtra



## Andhra Pradesh



## TamilNadu



\* As measured in antenatal clinics (ANC) consistent sites

# CONTEXT THAT CONTRIBUTED TO AVAHAN SCALE-UP

## Indian context:

- Key population programming priority for Gol.
- Gol under NACP-II investing in NGOs for prevention.
- Routine KP surveillance, enumeration exercise, behavioral survey.
- Comprehensive TI strategy.
- Long history of participatory development approaches and global model for FSW – Sonagachi.
- Nonetheless, significant stigma, violence, low social status of target population.

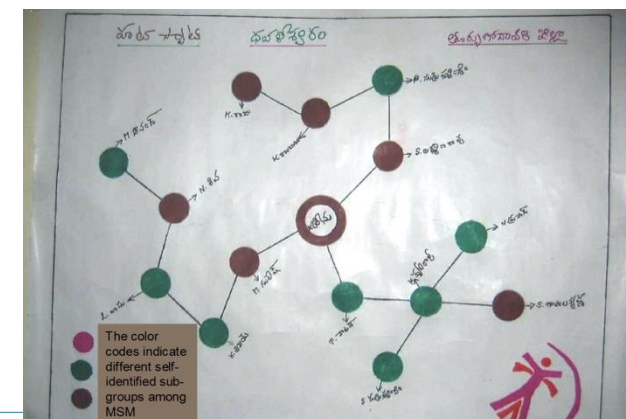
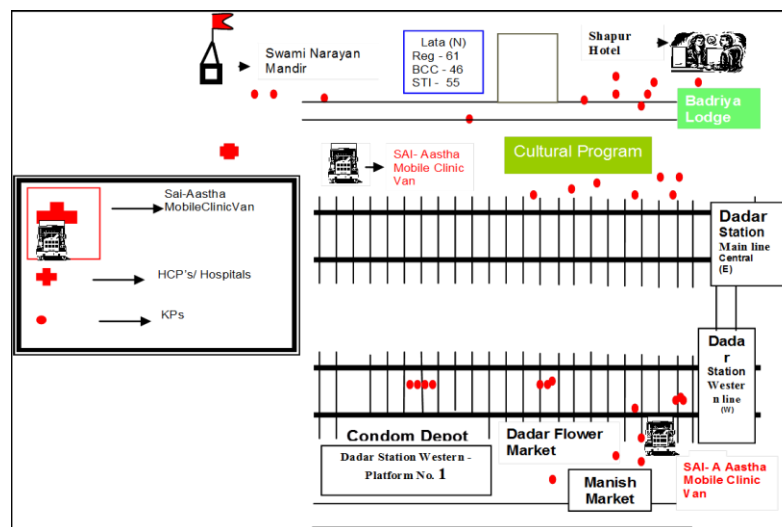
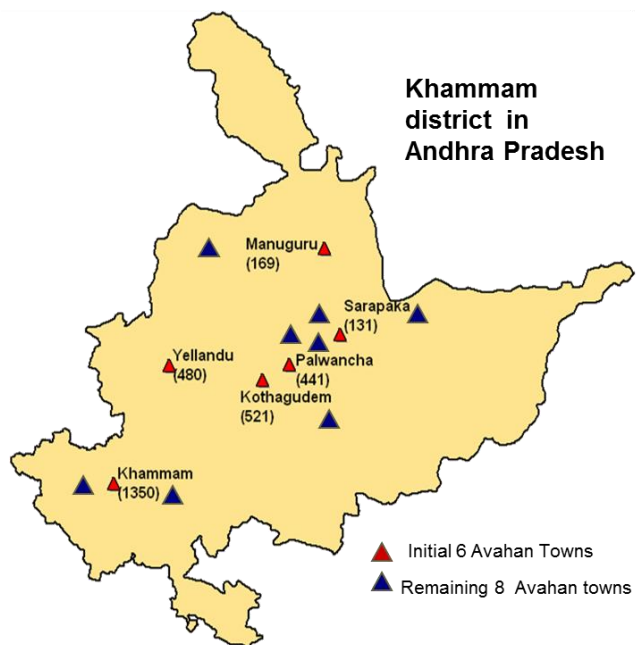
## Avahan context:

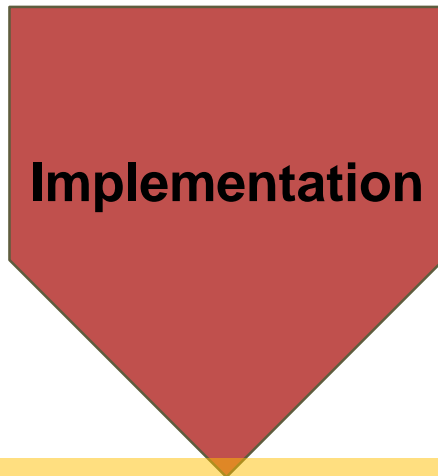
- NGO program
- Completely outside government
- “Sufficient” funding
- Controlled all elements of intervention

# ELEMENTS OF SCALE-UP – DATA USE, REFINEMENT, PUSHING DATA USE DOWN TO FRONTLINES

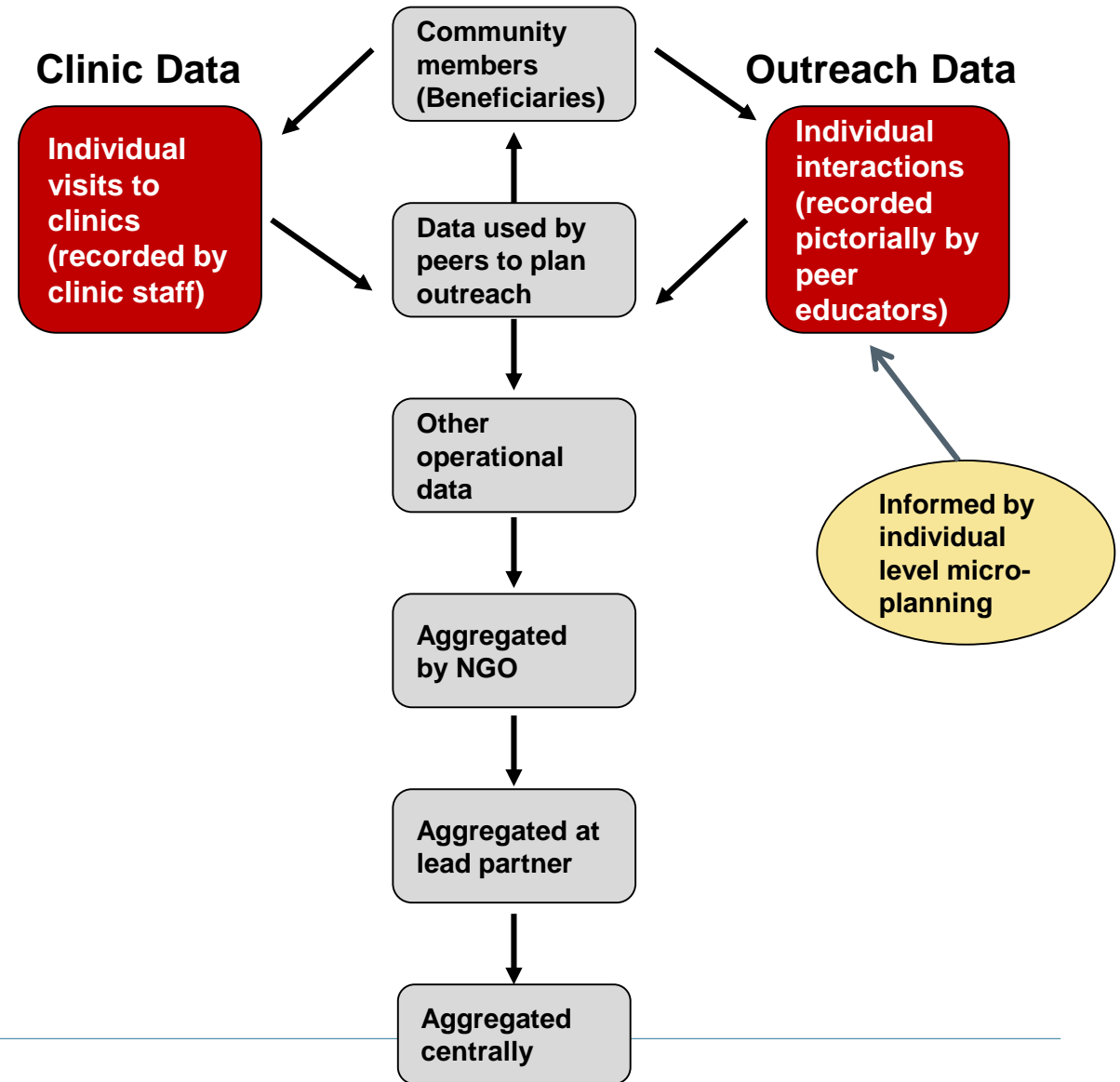
## Design

- District level mapping for hot spots and size estimates – largest first
- Site level mapping for outreach and service placement
- Network mapping to assign peer outreach worker to clients





- Common minimum program with targets
- Phase specific indicators
- Routine MIS
- Use at all levels (informed through mentoring)
- Intensive field engagement, regular reviews at all levels



# THE COMMON MINIMUM PROGRAM

**Define set of activities to be accomplished by all implementers in areas:**

- Community mobilization
- Advocacy
- Communication for behavior change
- Clinical services
- Monitoring for management
- Management

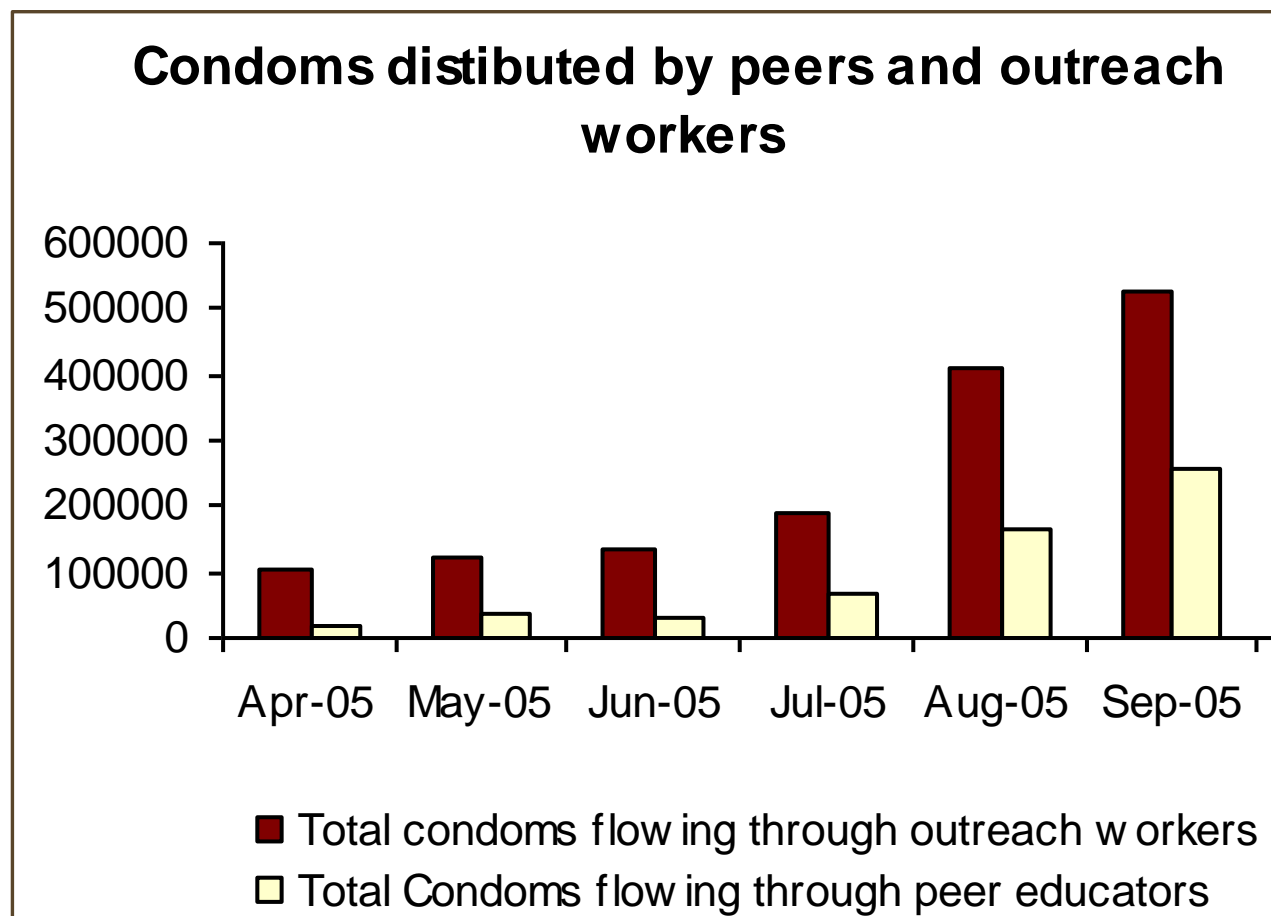
**Basis for indicators and data review in supervision visits**

**A living document - developed in 2004, revised in 2006 and 2010.**

- Informed by program experience
- Mechanism for program learning (most changes in CM section)
- Set standards but allowed for innovation

**Additional learning mechanisms established later in project.**

# ROUTINE MIS DATA AND PROGRAMMING DECISIONS – EARLY EXAMPLE



## Background:

Avahan offers free condoms to high risk groups

## Data:

<50% of condoms distributed by 1200 peers

>50% of condoms distributed by 131 NGO staff

## Relevance:

Scaling and speeding condom distribution

## Investigation:

Lack of trust

Lack of confidence in peer educator ability

Concern for position

## Action:

Skill building / tools for peers

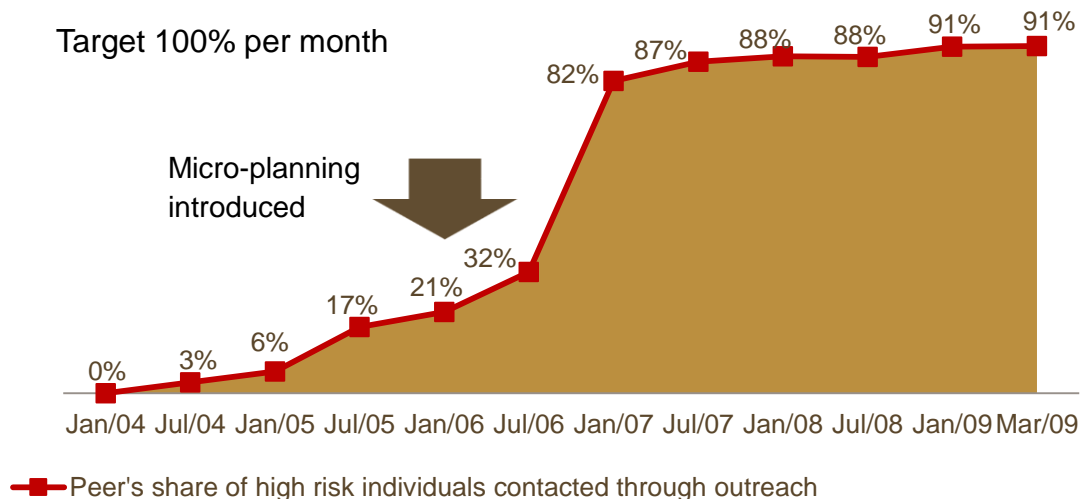
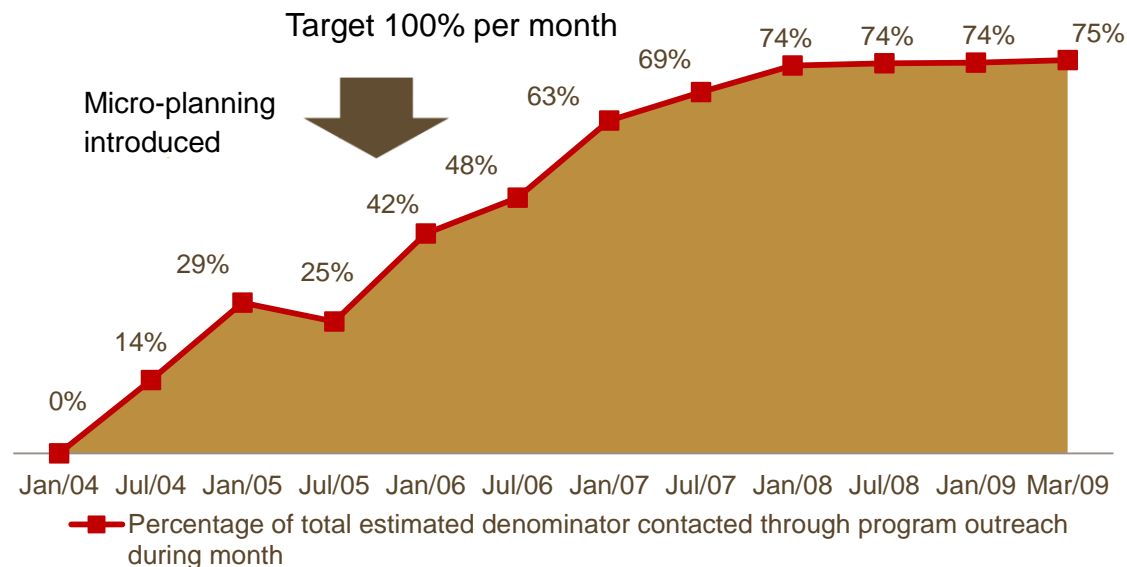
Coaching for NGO staff

# PEER OUTREACH WORKERS BECAME DATA USERS AND CASE MANAGERS



# OUTREACH CONTACTS INCREASED WITH MICROPLANNING

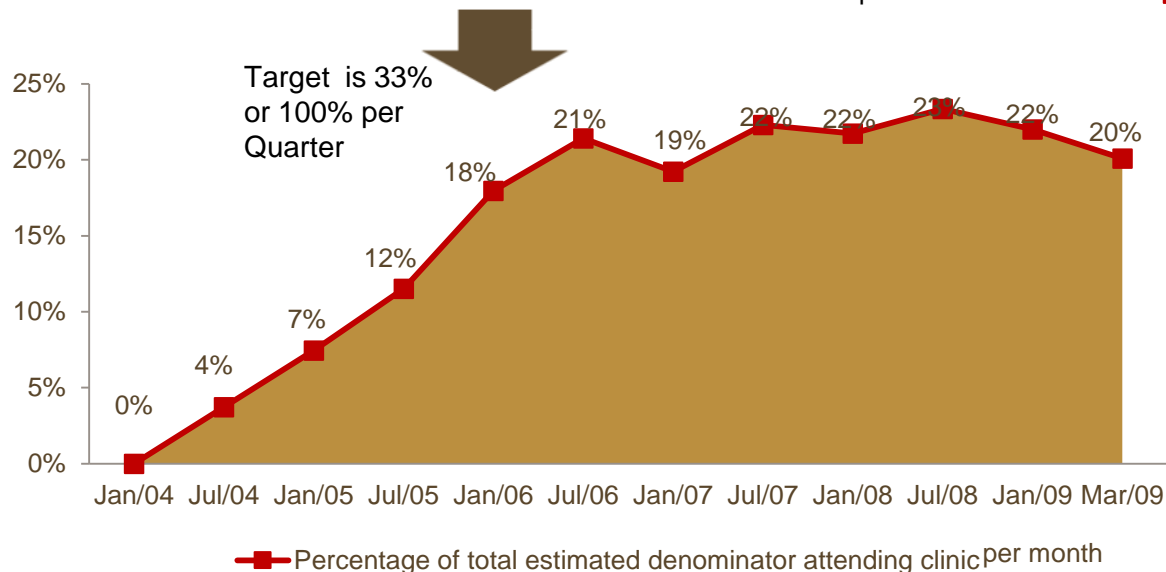
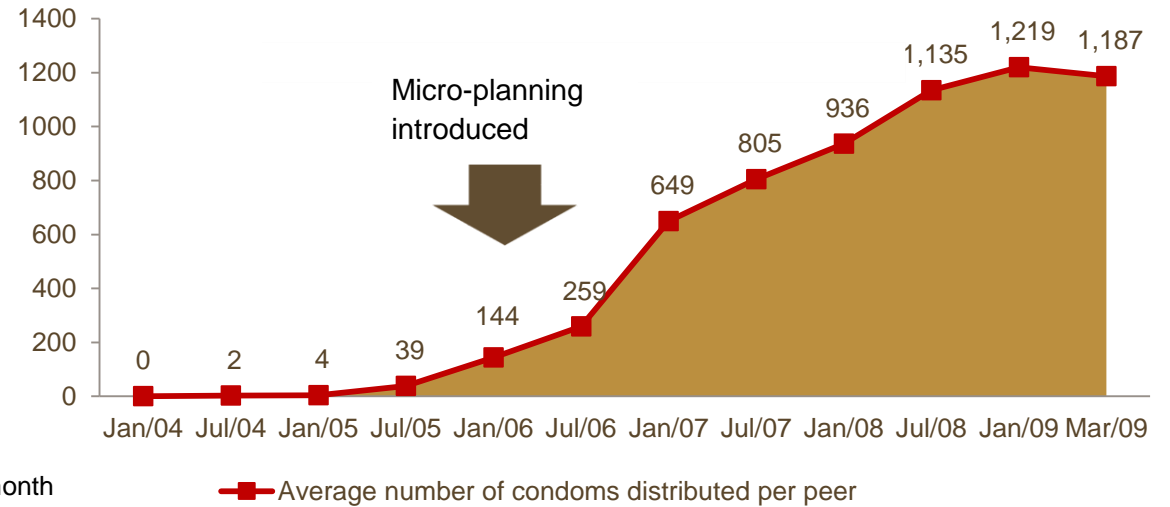
Monthly outreach  
Total reached climbed steadily as peers skills enhanced



Peers contact  
Micro-planning enabled peers to do the bulk of the outreach

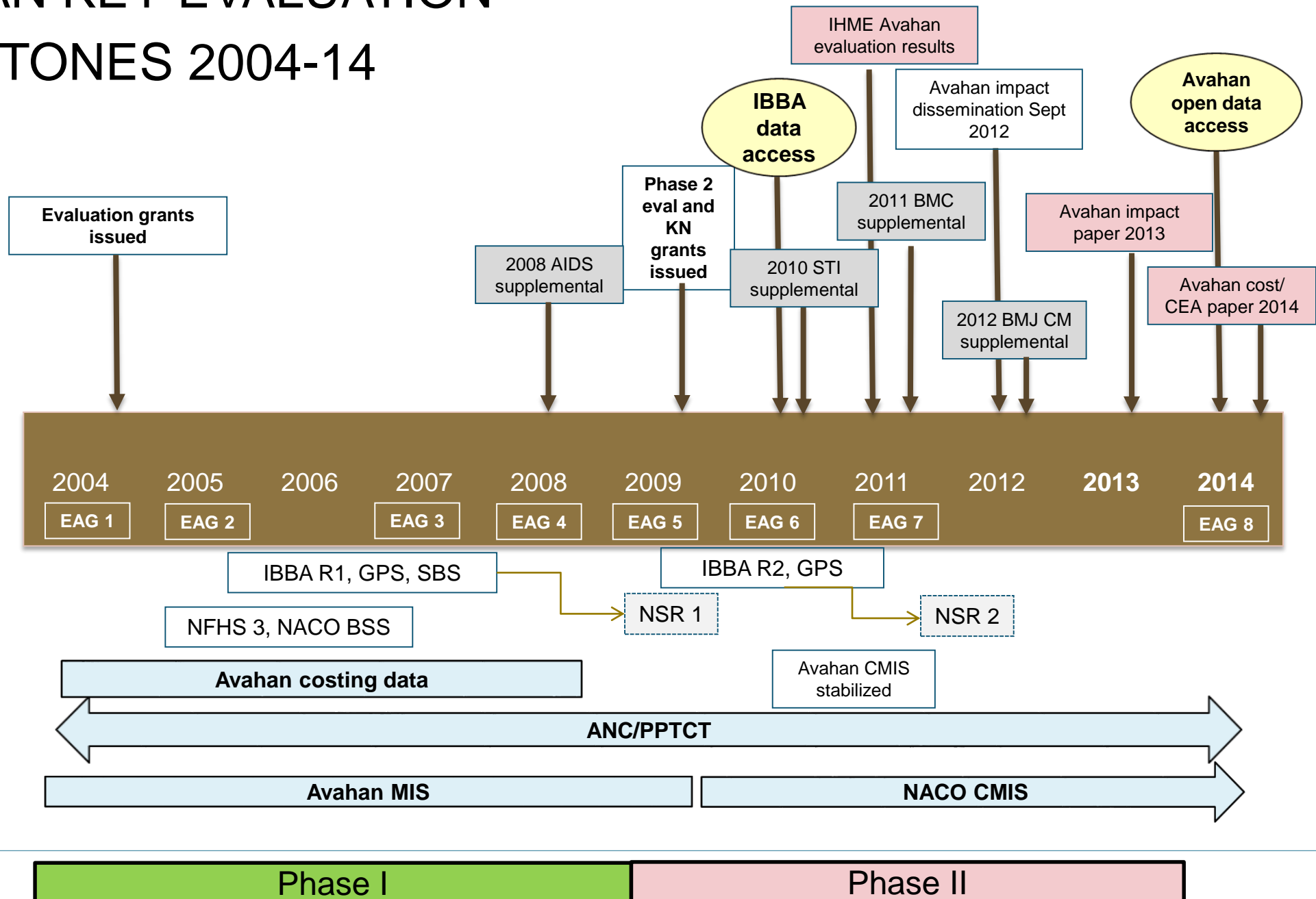
# SERVICE UTILIZATION INCREASED WITH MICRO-PLANNING

Condom distribution  
Steady rises since peers  
began doing bulk of  
outreach

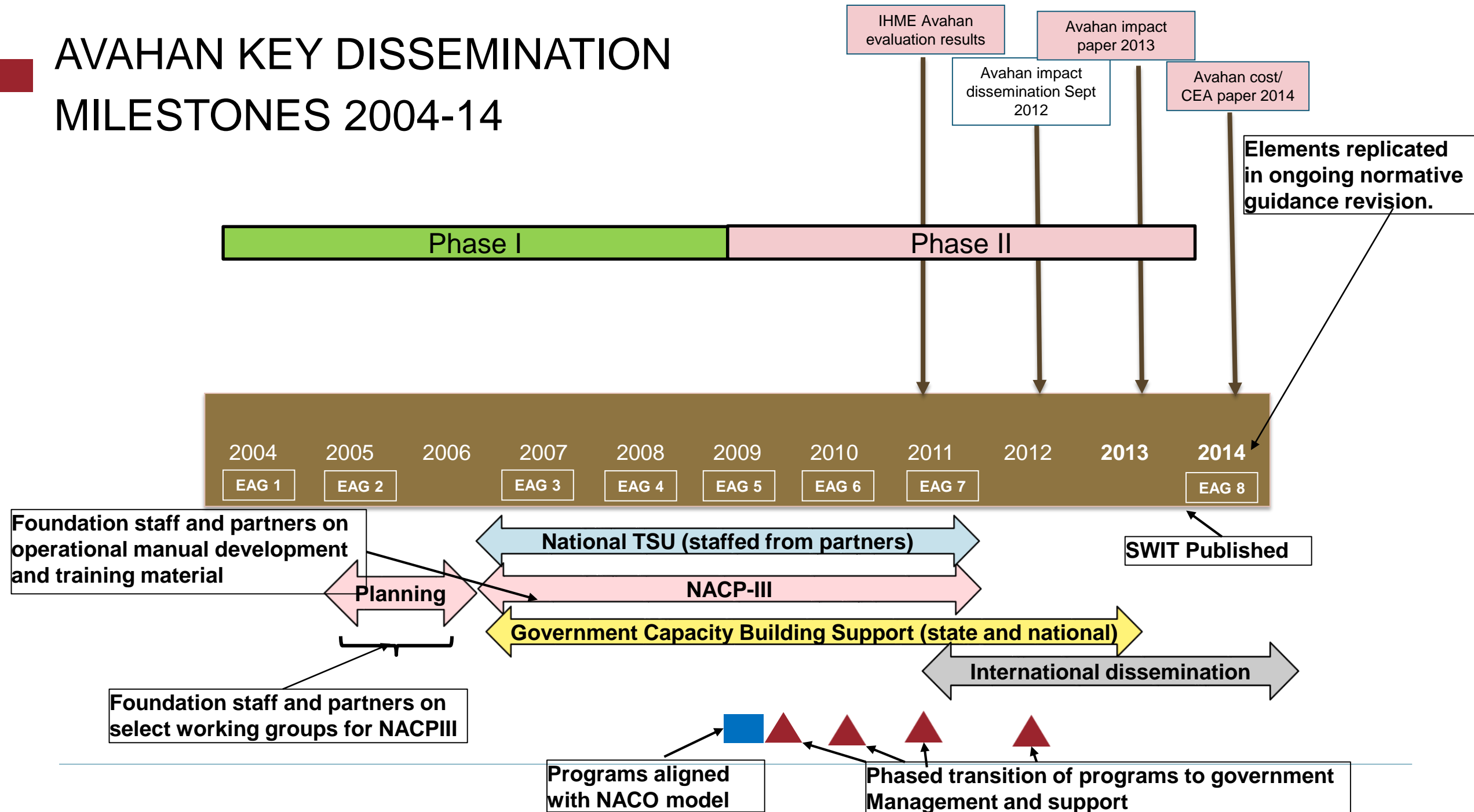


Clinic attendance  
Rose and stayed steady  
since micro-planning  
introduced

# AVAHAN KEY EVALUATION MILESTONES 2004-14



# AVAHAN KEY DISSEMINATION MILESTONES 2004-14



# DISSEMINATION AND INFLUENCE

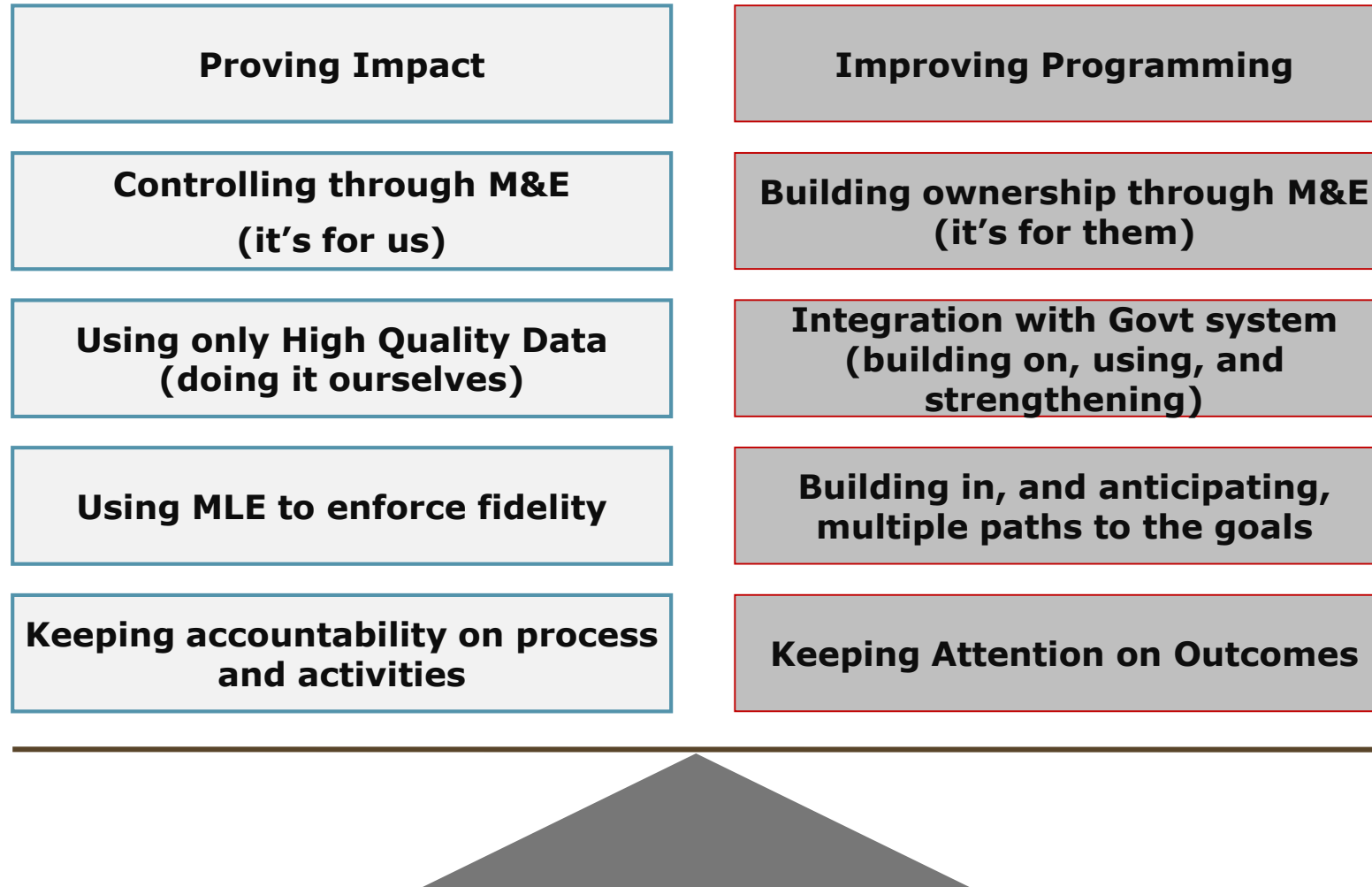
## Within India

- “Inside track” communication
- Enough experience at the right policy window.
- Avahan was successful at what India aspired to do
- Significant investment to help operationalize the design with Avahan approaches.

## Global

- Publication of evaluation results and programmatic learnings in peer reviewed publications, monographs, tools.
- Incorporation of learnings into global manuals and protocols
- Support for replication of elements in other countries
- Former partners and employees in key positions

# TENSIONS IN OUR MEASUREMENT LEARNING, AND EVALUATION WORK...



# CONCLUSIONS

1. Goal of IR should contribute to implementation / policy issues relevant to the country. Global learning is a secondary benefit.
  - Most implementation issues are context specific
  - Good documentation is necessary to “extract” global learnings
2. Improving routine data systems in countries is critical for IR
  - To identify implementation issues, local innovations
  - Key data source for implementation research
  - Improve country management
    - Use doesn't just happen, it needs to be facilitated
    - Strengthen connection between analysis and action
    - Using data improves data, improved data is more likely to be used
  - Single view of data is important

# CONCLUSIONS

## 3. Dissemination and influence → program change is complex

- Important to be aware of policy windows in countries
- For most interventions, policy makers, implementers and managers need evidence of improvement (less uncertainty), not proof (certainty).
- Even “simple” changes need support for institutionalization
  
- International processes currently require peer reviewed publications:
  - WHO – GRADE evidence
  - Cochrane reviews – prefers RCTs

■ THANK YOU



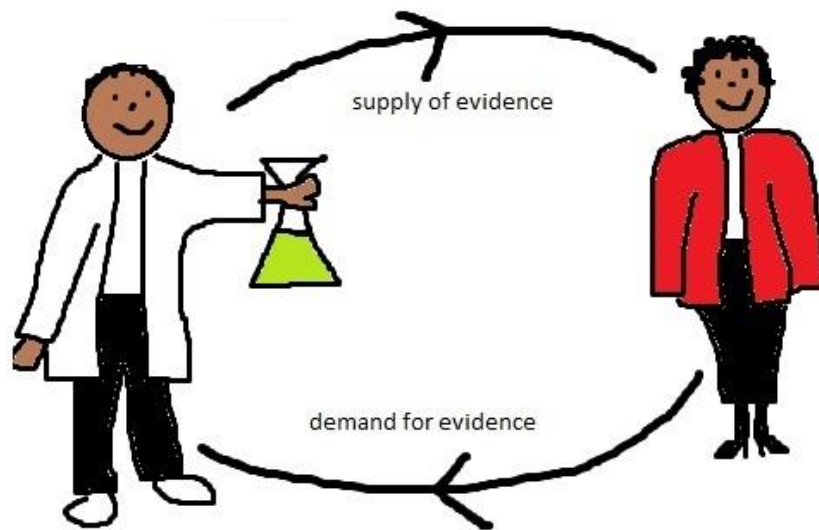
# IMPLEMENTATION RESEARCH AND EVIDENCE GEEKS

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A call for unity!

Dr Kirsty Newman

# International Conference on Evidence-Informed Policy, Nigeria 2012



*“...the two facets of organizational readiness for change--change commitment and change efficacy--are conceptually interrelated”*

Bryan J Weiner “A theory of organizational readiness for change” Implementation Science 2009, 4:67

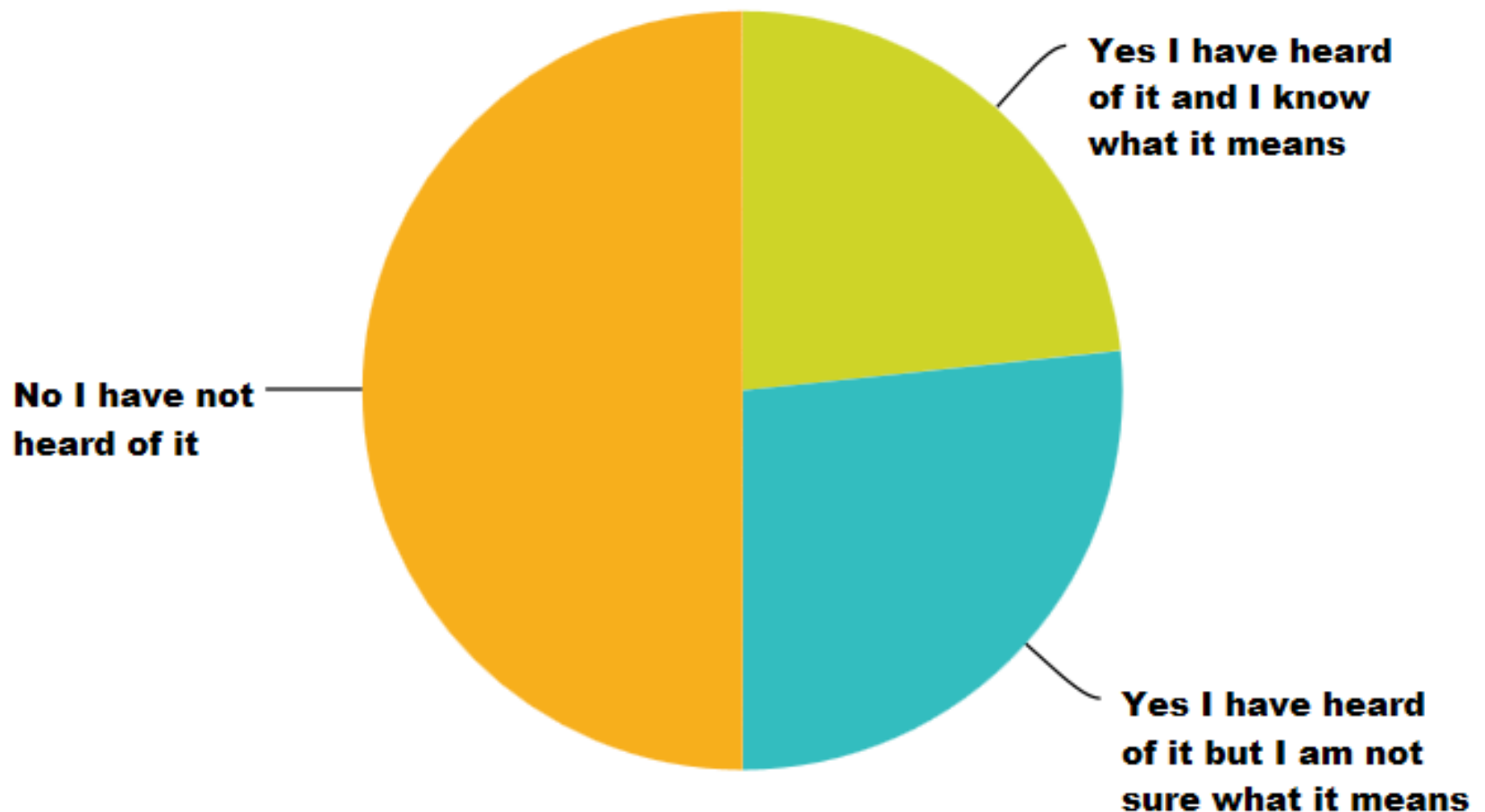
**Figure 1** Capacity and motivation are two overlapping factors which make up demand for research evidence and examples of each are given



Kirsty Newman, Catherine Fisher, and Louise Shaxson.  
"Stimulating Demand for Research Evidence: What Role for Capacity-building?" IDS Bulletin 2012: 43.5

# I am familiar with the term 'implementation science/research'?

Answered: 30 Skipped: 0

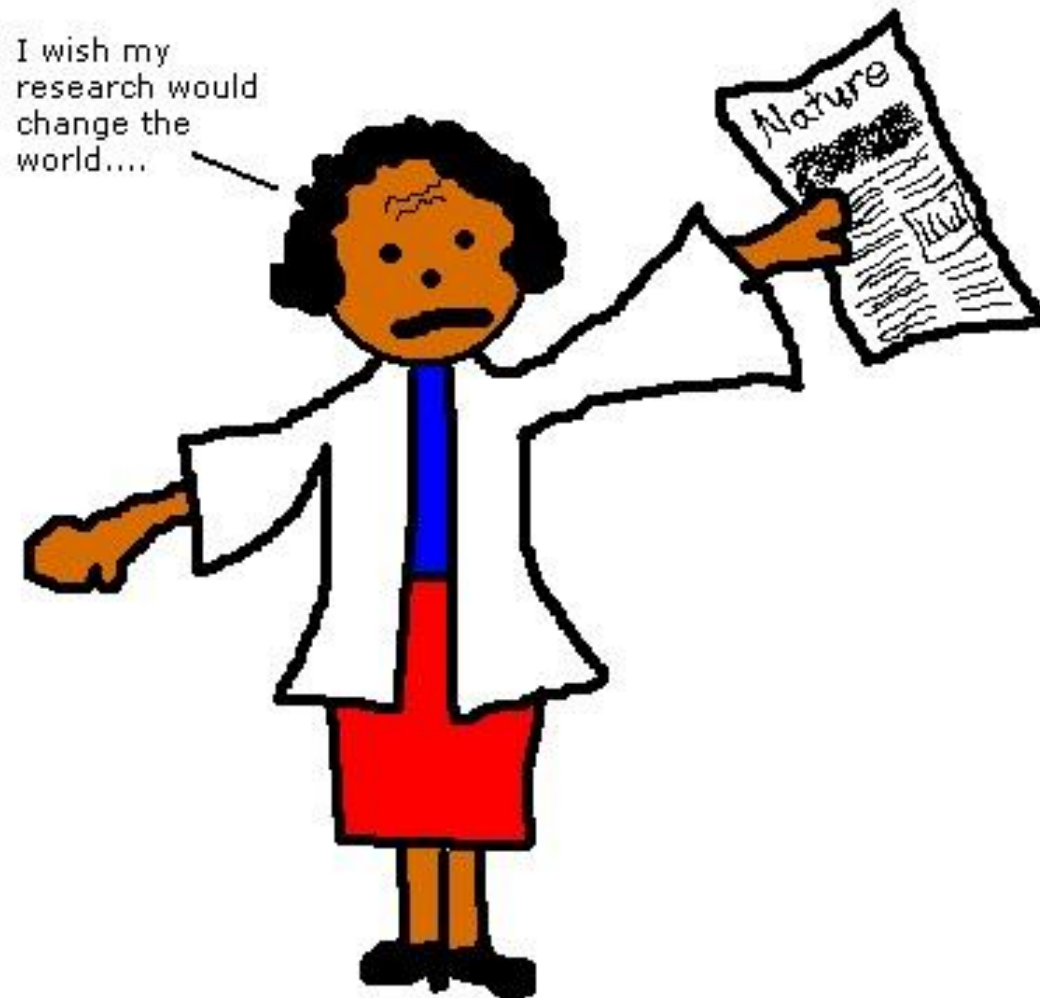


# What can we evidence geeks offer you?

- Focus on the 'demand-side'
- Tips on getting implementation science into use
- Lots of guinea pigs to study!



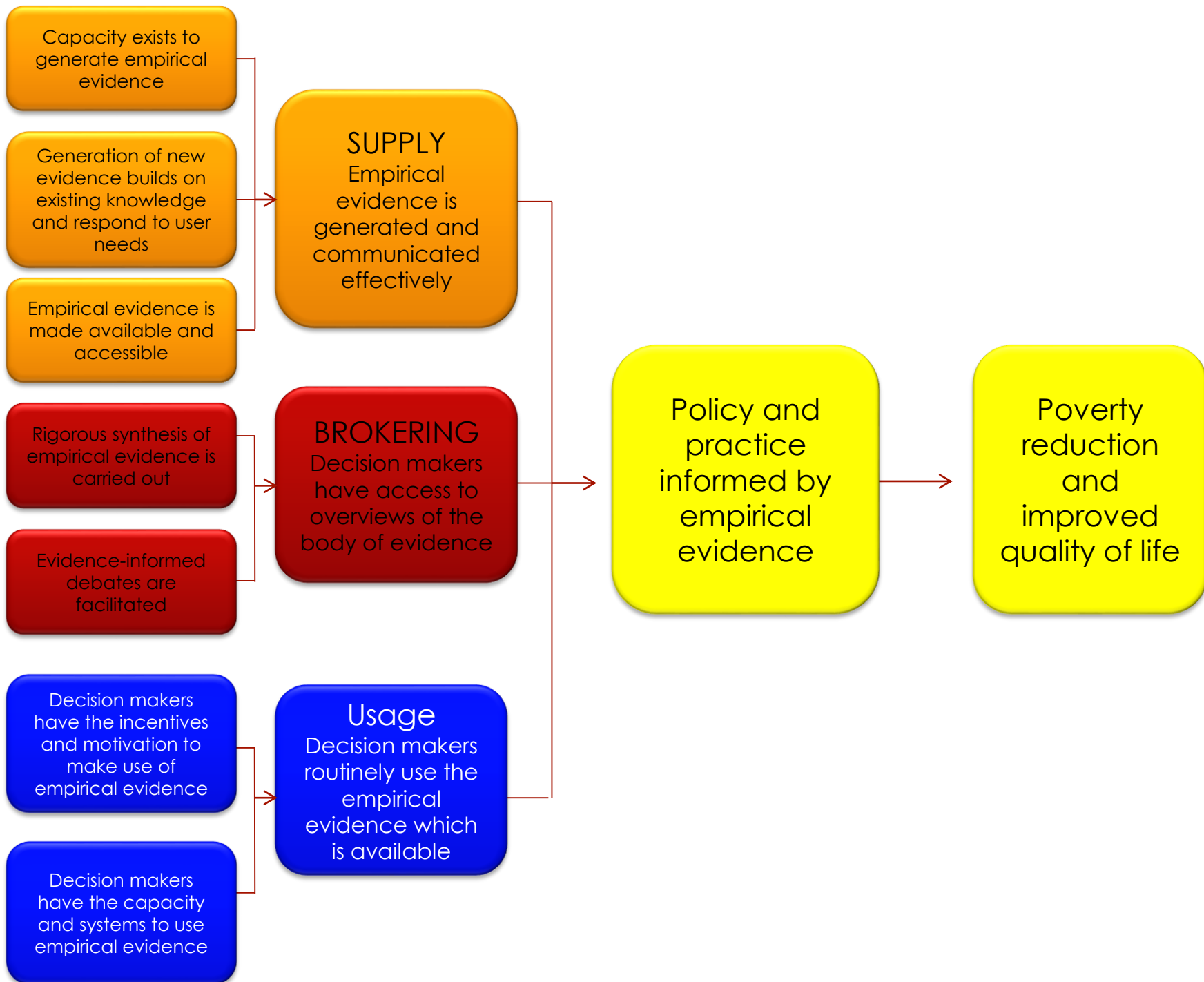
# Supply



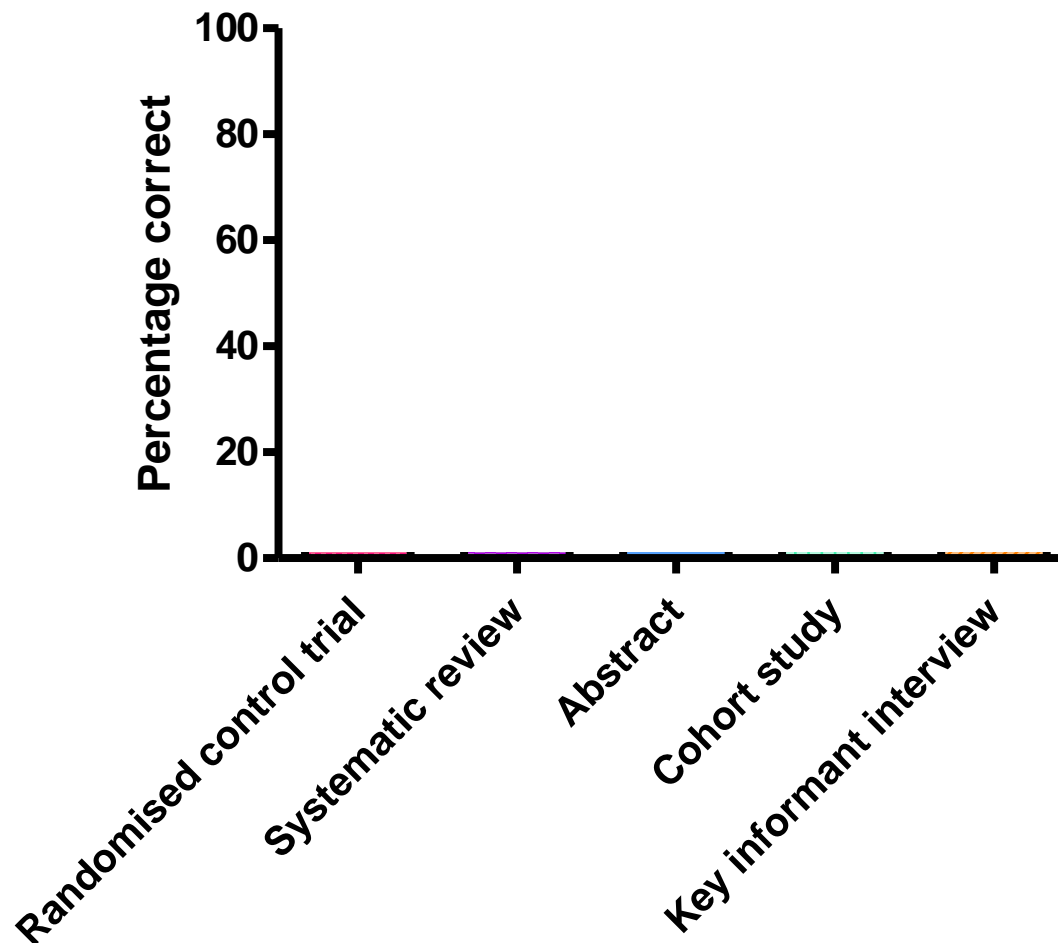
# Demand/Usage

I wish I had some  
evidence to inform my  
decision...





# 'Research advisors' picking correct definition of research terms



# Identifying scientific consensus

Human contribution to climate change?



- Scientists agree true
- Scientists agree false
- Scientists don't agree
- Don't know

HIV created by CIA?



- Scientists agree true
- Scientists agree false
- Scientists don't agree
- Don't know

# RESEARCH UPTAKE

A guide for DFID-funded  
research programmes



Last updated May 2013

## RESEARCH PROGRAMME

### Stakeholder engagement

Initial mapping of relevant stakeholders and context

Tailoring research design to meet user needs

Interactive discussions of research results

On-going stakeholder engagement

### Capacity building

Assess existing capacity internally and externally

Continually monitor capacity and modify capacity building strategy accordingly

Design and implement capacity building strategy

### Communicating

Design initial communication strategy

Package and disseminate emerging results

Rigorous synthesis


Adapt communication strategy based on emerging results

### Monitoring and evaluating uptake

Design research uptake objectives and ensure they are reflected in logical framework

Gather data on uptake

Adapt research uptake objectives based on emerging results

A group of women are seated at a long wooden table in a classroom or meeting room. They are looking at laptops, which display web-based interfaces. The woman in the foreground has long dark braids and is wearing a striped shirt. The woman next to her wears glasses and a dark top. The woman further back is wearing a grey blazer over a light blue shirt. The woman on the far right is wearing a black blazer over a pink shirt and has her hand on her head. The room has large windows with yellow curtains in the background.

## Building Capacity to Use Research Evidence (BCURE) Programmes

# What can implementation research offer to the evidence geeks?



- Contribute to global discussions on evidence-informed policy/practice
- Provide evidence to inform practice of 'evidence geeks'
- Help us get better at evaluating efforts to get research into use

# Thanks!

- DFID research uptake guidance  
<https://www.gov.uk/government/publications/research-uptake-guidance>
- Evidence-based policy in development network  
<https://partnerplatform.org/ebpdn/>
- BCURE <http://bcureglobal.wordpress.com/>
- My blog <http://kirstyevidence.wordpress.com/>
- Evidence into Action twitter @DFID\_Evidence
- My twitter @kirstyevidence