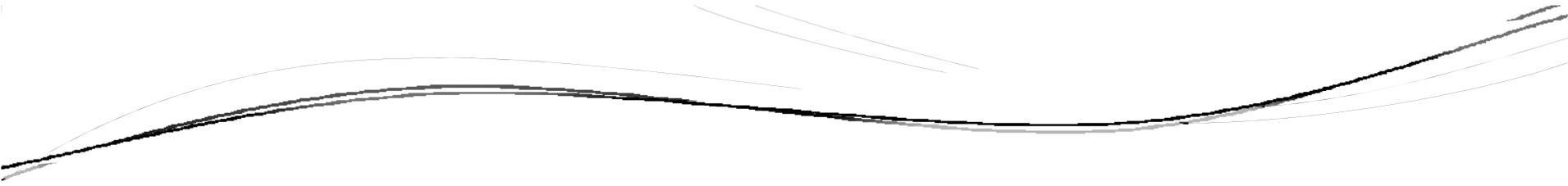


The Rewarding Early Abstinence and Treatment Participation (REAP) study

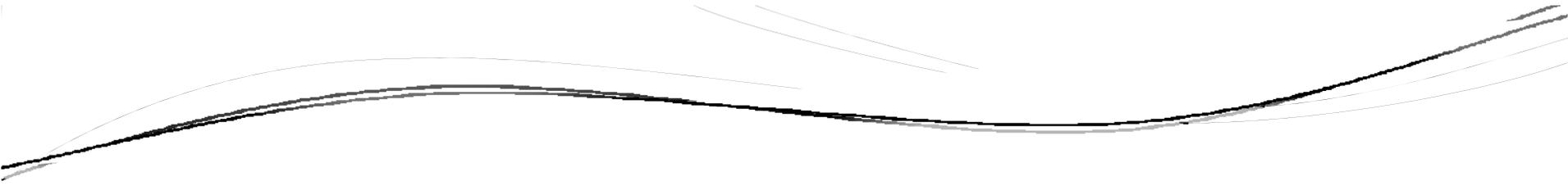
Hildi Hagedorn, Siamak Noorbaloochi, Carl Rimmele,
and Daniel Kivlahan





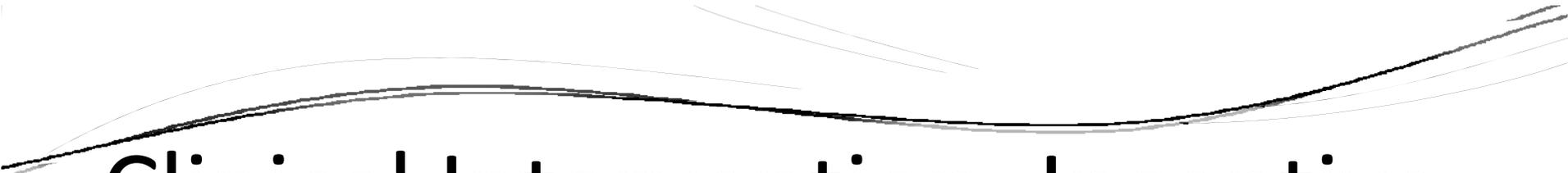
Audience Poll Question

- What exposure have you had to the presentation for today?
 - Attended the EIS training last July in Denver
 - Listened to the presentation online
 - Reviewed only the slides online
 - This will be my first time hearing about it



Audience Poll Question

- How confident do you feel about conducting a theory-based implementation study?
 - *Not at all confident*
 - *Somewhat confident*
 - *Moderately Confident*
 - *Very confident*
 - *I'm ready to dive in!*



Clinical Intervention: Incentive Interventions in SUD Treatment

- Provide tangible incentives such as vouchers, prizes, or cash for meeting objective treatment goals such as attending treatment appointments or providing urine screens that are negative for targeted substances.
- Incentive programs in SUD treatment have a large body of evidence supporting their efficacy.

Hybrid Designs

Study Characteristic	Hybrid Type I	Hybrid Type II	Hybrid Type III
Research Questions (examples)	<p>Primary Question: Will a clinical treatment work in this setting / these patients?</p> <p>Secondary Question: What are potential barriers/ facilitators to a treatment's implementation?</p>	<p>Primary Question: Will a clinical treatment work in this setting/these patients?</p> <p>Secondary Question: Does the implementation method show promise (either alone or in comparison to another method)?</p>	<p>Primary Question: Which method works better in facilitating implementation of a clinical treatment?</p> <p>Secondary Question: Are clinical outcomes acceptable for this population?</p>

Why a Hybrid Type 1 and not Type 2 or Type 3?

- Few effectiveness trials and none with a large sample of VA patients.
- Obtaining clinical funds for incentives was not feasible without further evidence specific to VA.
- Main aim of this study was to demonstrate effectiveness with VA population.



Why a Hybrid 1 and not an effectiveness trial?

- Main goal of research agenda is to support broad implementation in VA.
- Inclusion of process evaluation would inform future implementation trials.

Research Aims

1. Test the effectiveness of an incentive program with a large sample of veterans with alcohol and/or stimulant dependence.
2. Assess the costs of the clinical intervention.
3. Complete a process evaluation to better understand context for implementation

Clinical Intervention Design

- Randomized trial with minimal exclusion criteria.
- 330 veterans seeking treatment for alcohol or stimulant dependence at two VA SUD clinics randomly assigned to:
 - Usual Care: Standard care provided at the clinic AND appointments with RAs for breath and urine testing 2x/week for 8 weeks.
 - Incentive Program: Usual care + draw for incentives (VA canteen vouchers) when negative samples are submitted.

Process Evaluation Design:

Descriptive/Observational

Domains of Interest: Evaluation Framework

1. RE-AIM

- Reach: What percentage of patients approached agreed to participate? Did participants differ from those that refused?
- Effectiveness: Tests of main study hypotheses.
- Adoption: What will be the greatest barriers to other sites adopting this intervention? How can they be overcome?
- Implementation: What tools will programs need to deliver the intervention consistently?
- Maintenance: What resources would be required? What changes, if any, will be needed to integrate the intervention into regular practice?

PE Domains of Interest: Theoretical (Implementation) Framework

1. PARIHS [SI = (f) E,C,F]

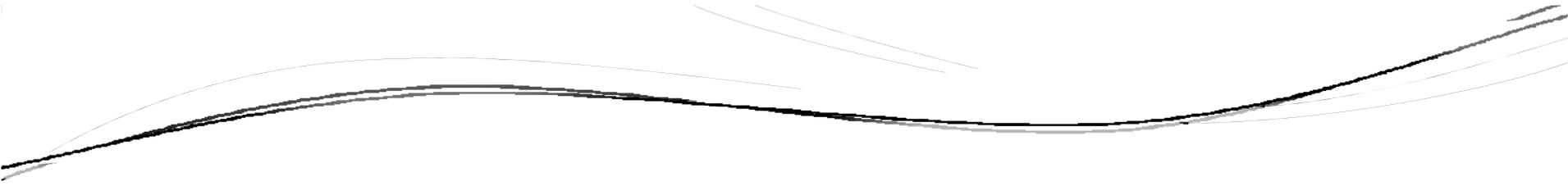
- Evidence: What are the staff's perceptions of the evidence supporting this intervention? Does the intervention fit with their current clinical practice and perceived needs of their patients?
- Context: What are the characteristics of the culture and leadership in the clinics? What resources are available to the clinics?
- Facilitation: What types of resources, training, and tools would be of greatest assistance to maintaining the intervention?

Clinical Intervention		Process Evaluation	
OUTCOMES	UNIT OF ANALYSIS	AIMS	UNIT OF ANALYSIS
During intervention rates of attendance	Individual patients	Assess organizational readiness relative to this clinical intervention.	Clinic
During intervention rates of negative urine screens		Identify barriers and facilitators to implementation	Staff
Self-reported recent use at follow-ups		Identify potential modifications to clinical intervention	Staff and Patients



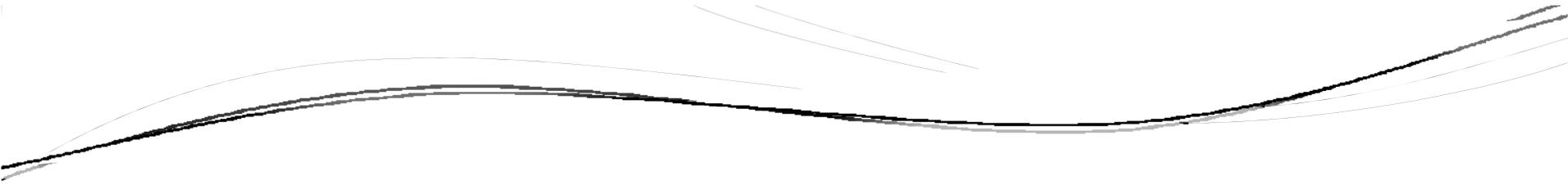
PE Measures: Before and During Intervention

- ▣ Research Team Observation Log:
 - ▣ Record details of interactions with staff particularly those focusing on reactions of staff to the intervention, barriers to implementation, recommendations for improvements.
- ▣ Data NOT used to optimize the clinical intervention



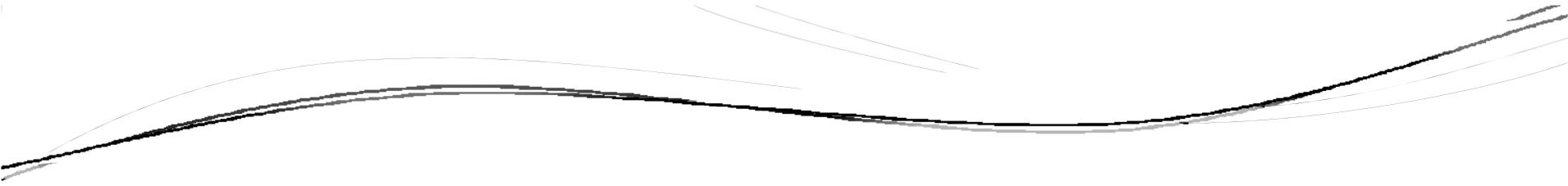
PE Tools: Post-Intervention

- ▣ Patient Post-Intervention Interviews
 - Likes, dislikes, value to recovery, improvements.
- ▣ PARIHS Organizational Readiness to Change Assessment (staff):
 - Knowledge of evidence base, attitudes toward intervention, organizational context (leadership, culture, resources, etc.)
- ▣ Staff Post-Intervention Interviews:
 - Reactions to the intervention, perceptions of the impact of the intervention on the clinic, barriers and facilitators to implementation, recommendations for changes to the intervention.
- ▣ Post-Intervention Leadership Interviews:
 - Are they going to attempt to continue the intervention? What lead to that decision? If yes, what modifications will they make?



Insights from PE

- ▣ Major barriers are funding for vouchers and point of care urine testing.
- ▣ Routine urine and breath screening and non-judgmental, supportive relationship with RAs were important part of “clinical” intervention ingredients.
- ▣ Staff attitudes toward clinical intervention improved as they gained experience with the intervention.
 - Trial implementation period may be very useful for soliciting buy-in.
- ▣ Patients were NOT interested in having clinical intervention take place in a group.



Audience Poll Question

- Have you ever adapted or tailored an intervention?
 - *Yes*
 - *No*

EQUIP: Implementation Research in Specialty Mental Health

Supported by HSR&D QUERI

Alexander S. Young, M.D., M.S.H.S.

Amy N. Cohen, Ph.D.

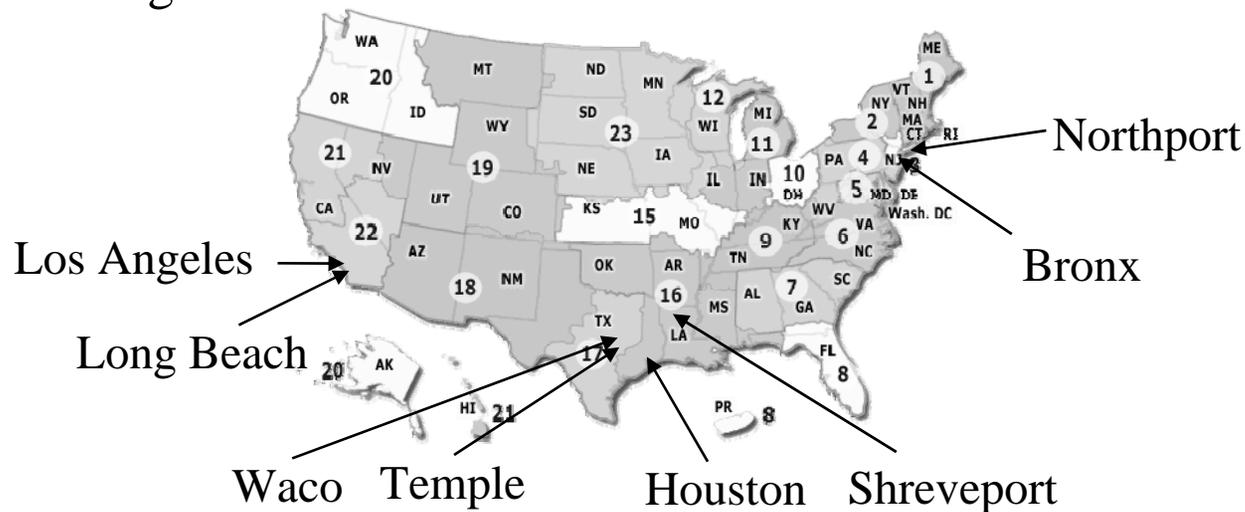
Alison Hamilton, Ph.D.

EQUIP Investigators: VISN 3, 16, 17, and 22

VA Desert Pacific Mental Illness, Research, Education, and Clinical Center (MIRECC)
UCLA Center for Health Services

EQUIP: Research - Operations Partnership

- ◆ National guidelines specify effective practices in schizophrenia
 - these are often not used
- ◆ 15 month controlled trial of intervention to improve care for schizophrenia
 - 4 VISNs: each with 1 intervention and 1 control site
- ◆ VISN – Researcher strategic planning
 - decide on care targets to be improved
 - all VISNs chose to implement services for employment and weight



EQUIP Team

VISN 3

Eran Chemerinski, MD (PI: Bronx)
Charlene Thomesen, MD (PI: Northport)
Claire Henderson, MD
Deborah Kayman, PhD
Amy Look
Helen Rasmussen, PhD

VISN 16

Anna Teague, MD (PI: Houston)
Dean Robinson, MD (PI: Shreveport)
Deborah Mullins, PhD
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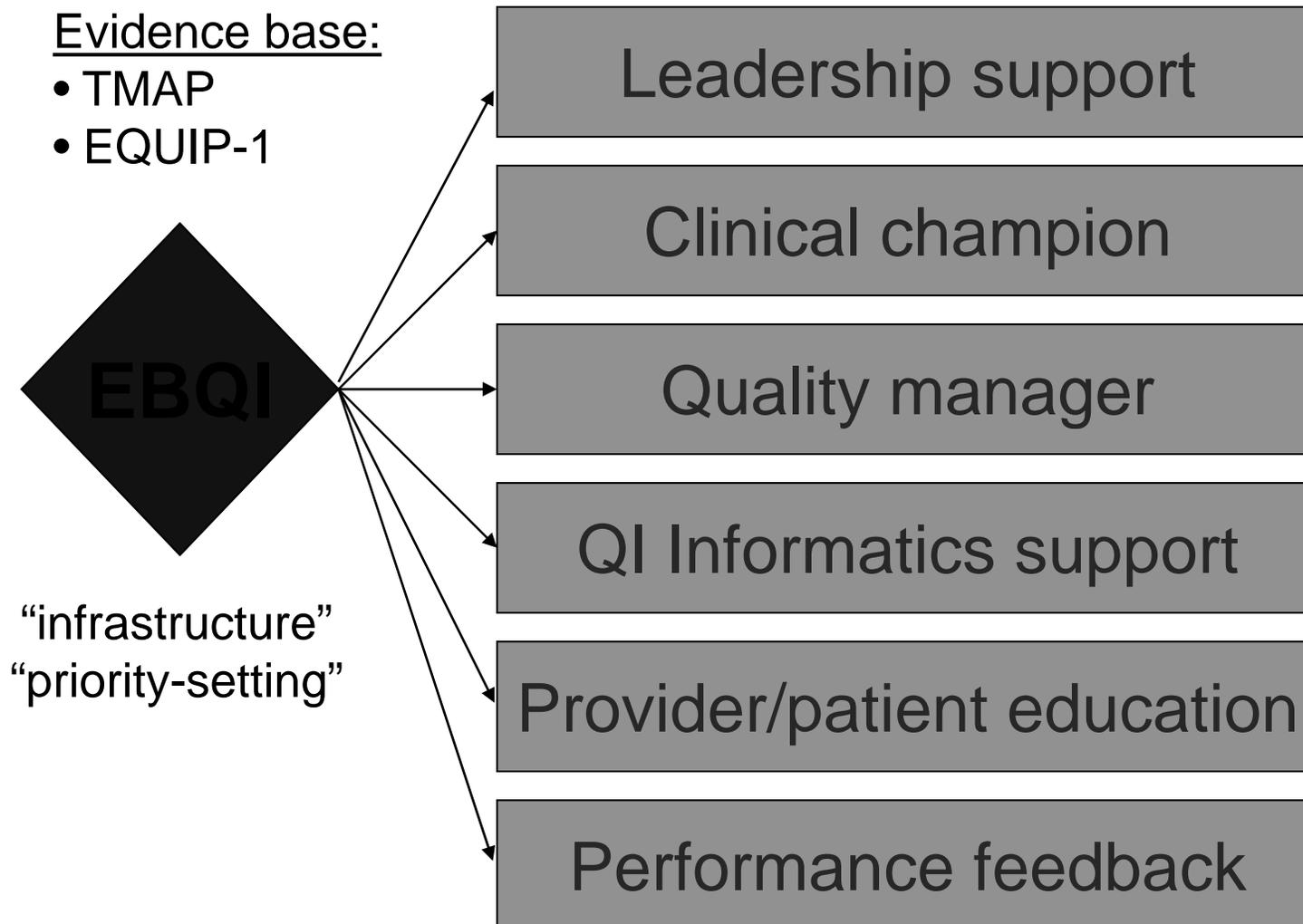
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Alison Hamilton, PhD, MPH
Stone Shih
Paul Jung

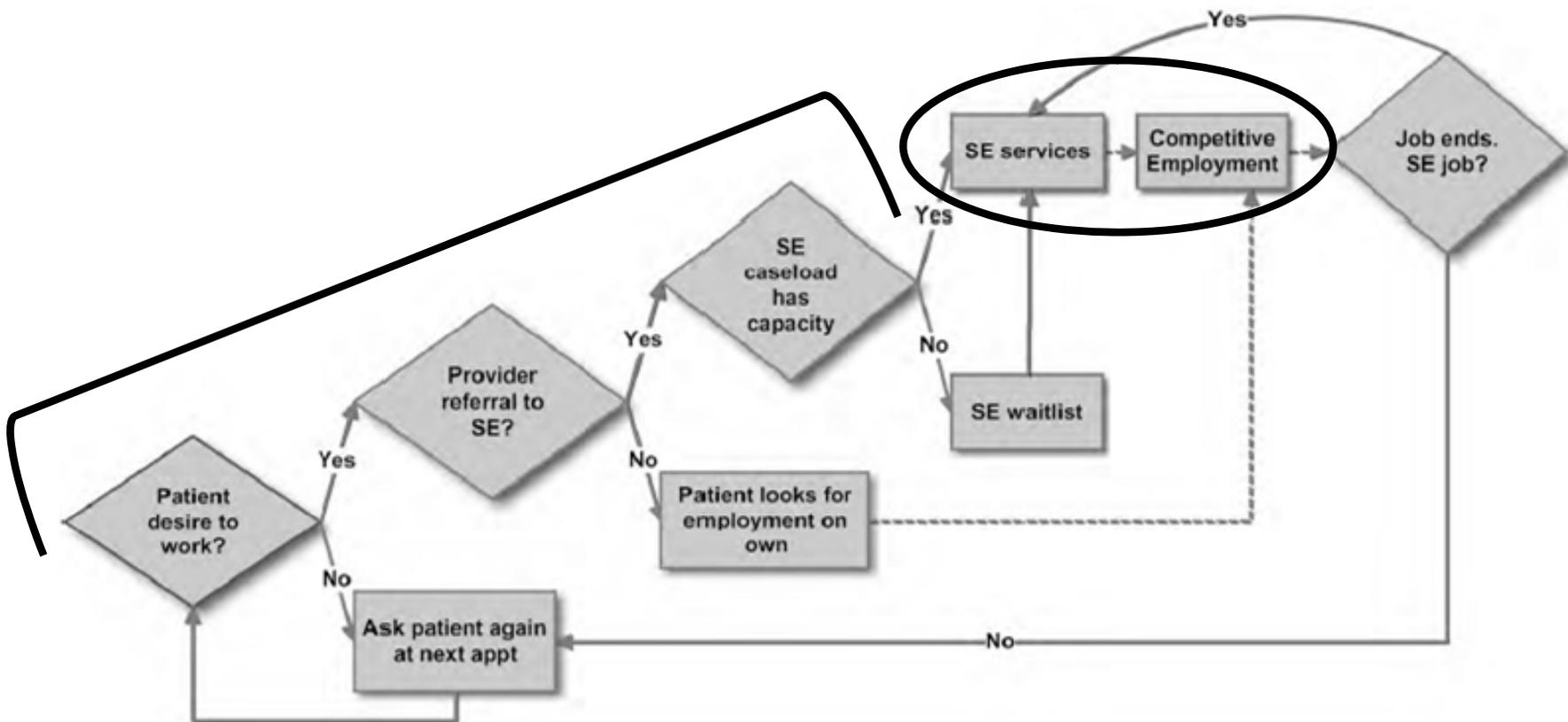
Design

- ◆ Clustered, clinic-level controlled trial
 - implement chronic care principles using Evidence-Based Quality Improvement (EBQI) tools and strategies
- ◆ Enrollment
 - 4 VISNs, 8 clinics
 - 166 staff (clinicians + administrators)
 - 791 patients
- ◆ Evaluation of both implementation and effectiveness
 - evaluate the effect (relative to usual care) of care model implementation on: provider competency, treatment appropriateness, patient outcomes, and service use
 - evaluate processes of and variations in care model implementation and effectiveness

Implementation Tools & Strategies: Evidence-Based Quality Improvement (EBQI)



Supported Employment: Process Map



Routine Inquiry: Desire to Work

Patient Assessment System



- Audio, computer assisted self-interviewing
- Kiosk in waiting room for patients' use at every visit
- Produces educational report for the patient

Reports for Clinicians and Managers

Fast Facts FOR VA CLINICIANS

WORK MATTERS: Referring Patients to Supported Employment

Enhancing Quality of care in Psychosis



Long Beach VA

For more information—

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A collaborative project:

- James J. Petes VAMC
- Long Beach VA Healthcare System
- Michael E. DeBakey VAMC
- Northport VAMC
- Olin E. Teague Veterans' Center
- Overton Brooks VAMC
- Southern Nevada VA Healthcare System
- Waco VAMC
- UCLA Health Services Research Center
- Los Angeles VA Mental Illness Research, Education and Clinical Center

Department of Veterans Affairs

Supported employment is an evidence-based approach.

- ✓ Only 15% of veterans with schizophrenia are employed in competitive jobs.
 - 70% want to work
 - 50% can work when using supported employment
- ✓ Works with people of all ages in urban and rural communities

All interested veterans are eligible.

- ✓ **No exclusion** due to symptoms, substance abuse, hygiene, or prior work history

Services are integrated with mental health care.

- ✓ Employment specialist coordinates with the veteran's mental health treatment team by:
 - attending regular meetings
 - working together to share information and solve problems

"Employers consistently tell us that workers with serious mental health disabilities do a good job...and that they are a productive segment of the labor force."

—Judith A. Cook, PhD
Professor of Psychiatry
University of Illinois at Chicago



Job search is individualized and rapid.

- ✓ Based on veterans' preferences, strengths, and experiences
- ✓ No need for lengthy pre-employment preparation or "work readiness" training

The goal is competitive employment.

- ✓ Regular jobs in the community
- ✓ At least minimum wage full- or part-time pay

Supports are continuous.

- ✓ On-going benefits counseling
- ✓ One-on-one assistance to help veterans find and keep jobs
 - Interview practice
 - Resume preparation
 - Getting necessary tools and supplies

Refer veterans interested in working.

- ✓ Talk about employment with veterans with schizophrenia.
- ✓ If a veteran is interested, refer to Supported Employment or contact your VISN Coordinator.



EQUIP: Enhancing Quality of care in Psychosis

- National HSR&D Quality Enhancement Research Initiative
- Joins with VA leadership to improve care for individuals with schizophrenia
- National Principal Investigators: Alexander Young, MD, MSHS, and Amy Cohen, PhD, Greater Los Angeles VA

Intervention Status		
Date:	1/30/2009	
VISN	A	
Supported Employment (SE)	Number of Patients	%
Possible or definite interest on the PAS	53	
Interest when discussed	53	
Referred to SE	43	81%
Seen by SE	2	4%

Benchmark Status		
Date:	1/30/2009	
VISN	A	
Patients seen by SE/ Patients who want to work		%
Other Site		22
Other Site		19
Other Site		97
YOUR SITE		4

Evaluation Aims

- ◆ Evaluate effect of intervention on
 - provider competency, treatment appropriateness, patient outcomes, service utilization
 - patient interviews and VistA data
- ◆ Using mixed methods, evaluate processes of and variations in care model implementation and effectiveness to strengthen implementation and to:
 - assess acceptability of the care model, and barriers and facilitators to its implementation
 - understand how the project's strategies and tools affect care model implementation
 - analyze the impact of individual care model components on treatment appropriateness

Formative & Process Methods

◆ Diagnostic evaluation

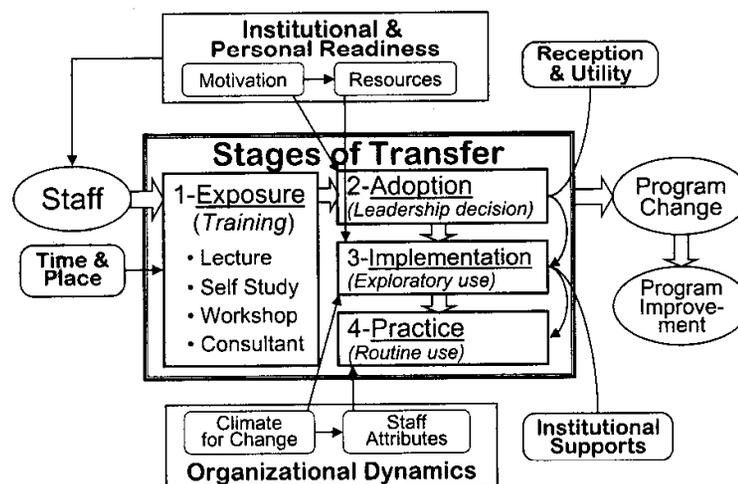
- structure of care varied across sites
- availability & quality of care for work and weight varied across sites

◆ Process

- characterized provider competencies, organizational readiness, barriers, facilitators
- survey providers & managers at 0 and 12 months
- interview providers & managers at 0, 6, and 12 months
- monitor use of informatics
- logs and minutes of implementation team meetings
- field notes from local QI teams

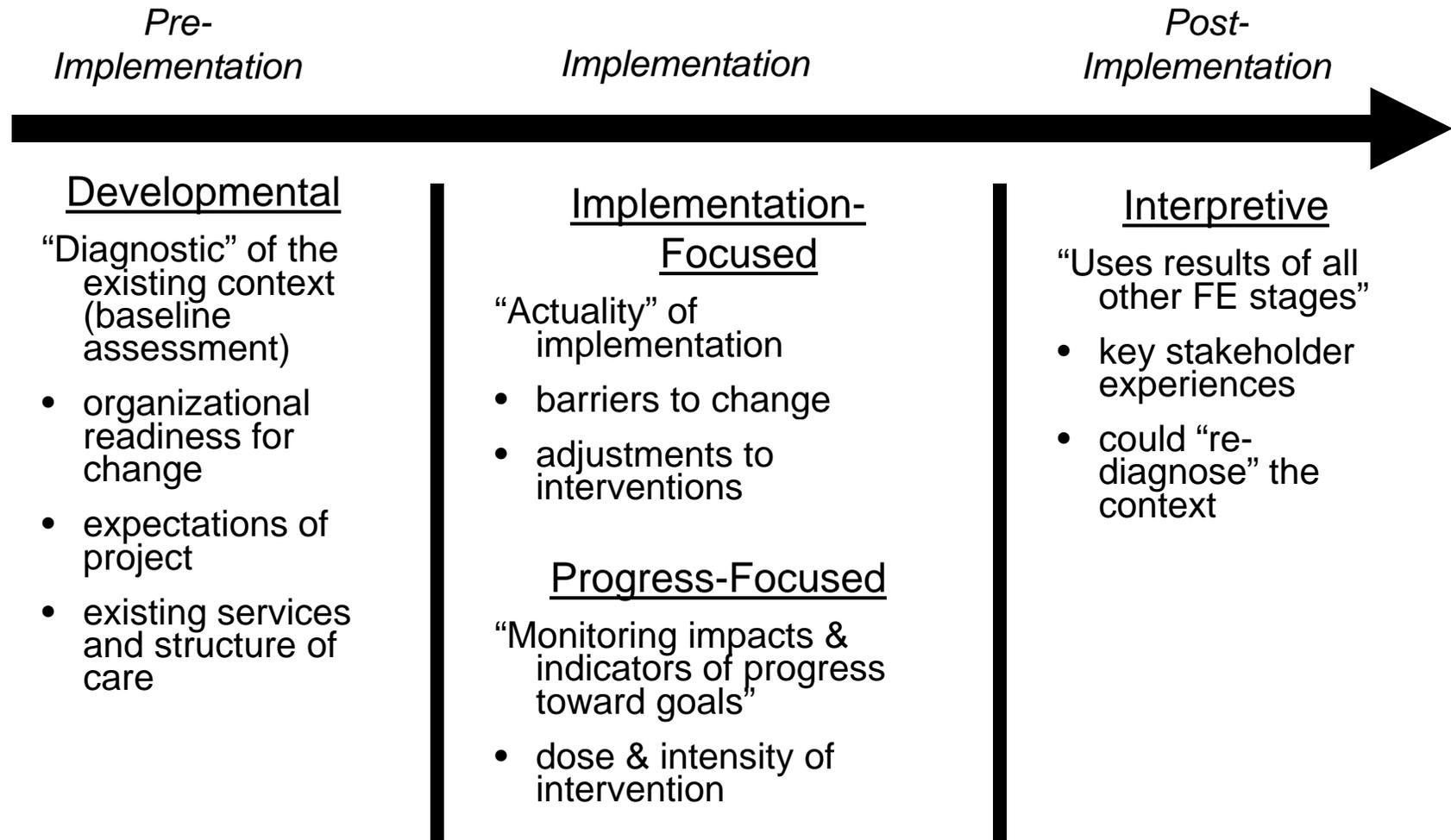
Conceptual Framework: Simpson Transfer Model

- ◆ Stages of organizational change
- ◆ Validated survey measures for each stage



- ◆ 4 Action steps:
 - Exposure: Introduction and training
 - Adoption: Intention to try the care model through a program leadership decision and subsequent support
 - Implementation: Exploratory use of the care model
 - Practice: Routine use of the care model

Stages of Formative Evaluation



Data for Formative Evaluation

*Pre-
Implementation*
*(STM: Exposure
& Adoption)*

Implementation
*(STM:
Implementation)*

*Post-
Implementation*
(STM: Practice)

Developmental

- field notes
- documents
(minutes, etc.)
- ORC & Burnout
Inventory
- key stakeholder
interviews

Implementation- Focused

- field notes
- Quality Coordinator logs
- documents
- key stakeholder
interviews

Progress-Focused

- QI tools

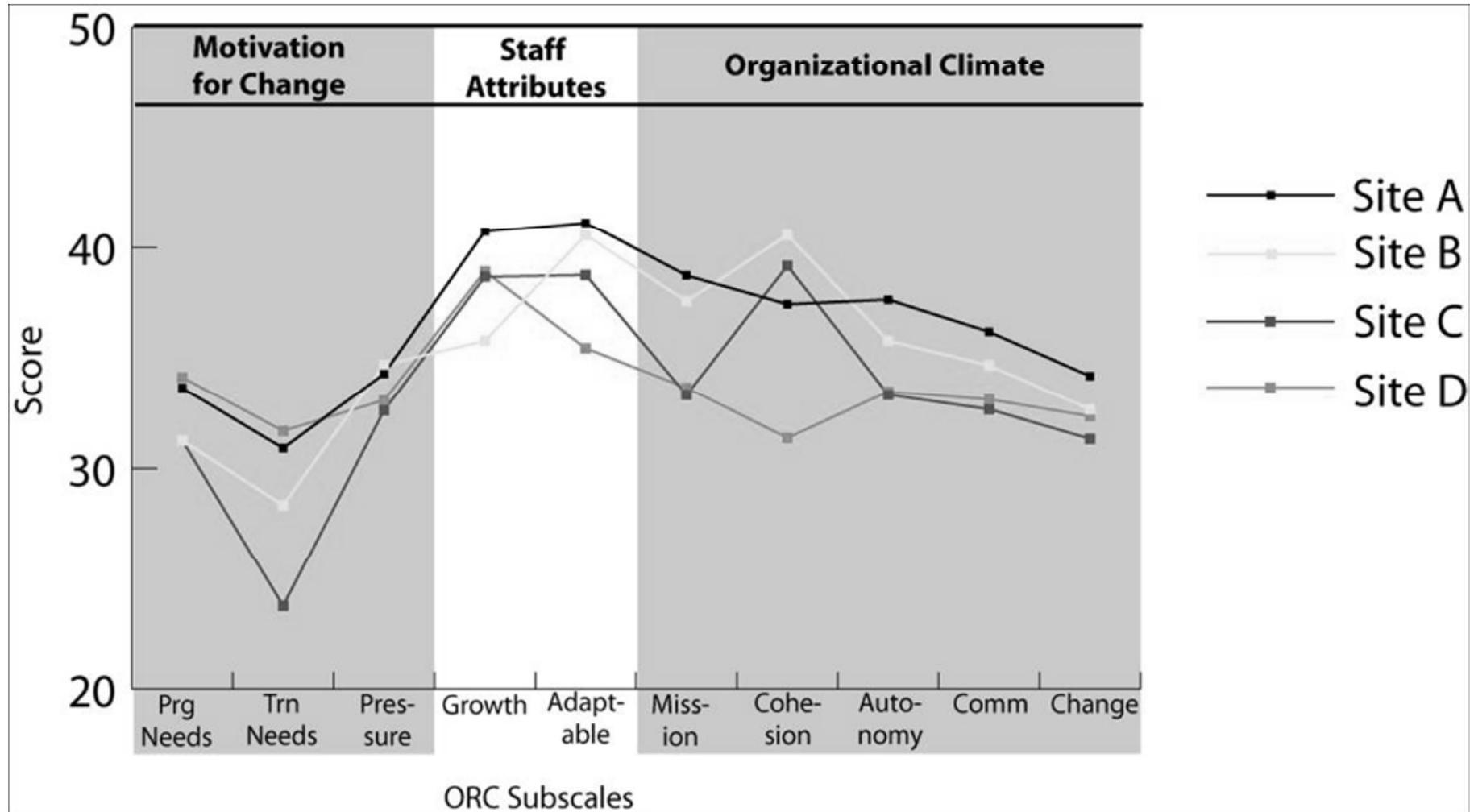
Interpretive

- field notes
- key stakeholder
interviews
- ORC & Burnout
Inventory

Multiple Data Sources: Measuring & Documenting Implementation

	EQUIP	Examples
Semi-structured interviews: leaders, clinicians, managers	✓	participation, level of implementation
Organizational site surveys: administrators & staff	✓	clinic structure, processes, change
Field journals	✓	group-level dynamics, implementation details
Administrative data	✓	visits, prescriptions
Patient surveys	✓	kiosk self-assessments
Activity logs	✓	time spent on aspects of study

Institutional and Personal Readiness for Change



TCU Organizational Readiness for Change (ORC) scale

Tailoring of Implementation Based on Readiness

- ◆ Sites A and B: more ready to change
 - no specific tailoring
- ◆ Site C: less ready to change
 - needs (low): heighten awareness of gaps in care; use clinical champions and educational programs
 - mission (moderate but lowest of all clinics): study staffing kept consistent; consistency of message
 - autonomy (moderate but lowest of all clinics): let clinicians help determine how to implement the care targets

Results: Summative

◆ Employment

- at baseline, 85% of patients unemployed
 - » 53% want paid employment
 - » 6% receive Supported Employment
- as a result of the intervention, patients were 2.2 times more likely to receive services
 - » at intervention sites, competitive employment increased from 12% to 15%

◆ Weight

- large increase in wellness services
- at intervention sites: average of 13 pounds more weight loss

Results: Process

- ◆ Clinician competencies
 - variable, often low, regarding work and weight services
- ◆ Organization
 - strong support
 - collaboration between services was difficult (nutrition, primary care wellness programs, specialty mental health)
- ◆ Managers used data to reorganize care
 - hired another Supported Employment specialist
 - trained clinical staff to provide services
 - discharged patients who were not succeeding, or not appropriate

Conclusions

- ◆ Successful research-operations partnership allowed for implementation to match VA operational goals, be tailored to local context, and encourage utilization
- ◆ Implementation strategies and tools increased appropriate wellness services and use of Supported Employment
- ◆ Formative evaluation to strengthen implementation
- ◆ Process evaluation to inform results

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