



## A Tale of 4 Cities: Using Operations Data to Evaluate Patient-Centered Care in the VA

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- No disclosures

# Poll Question: In what context are you primarily involved with patient-centered care?

- Answer choices
  - Research
  - Acute care clinical practice
  - Ambulatory care clinical practice
  - Administration
  - Not involved with patient-centered care

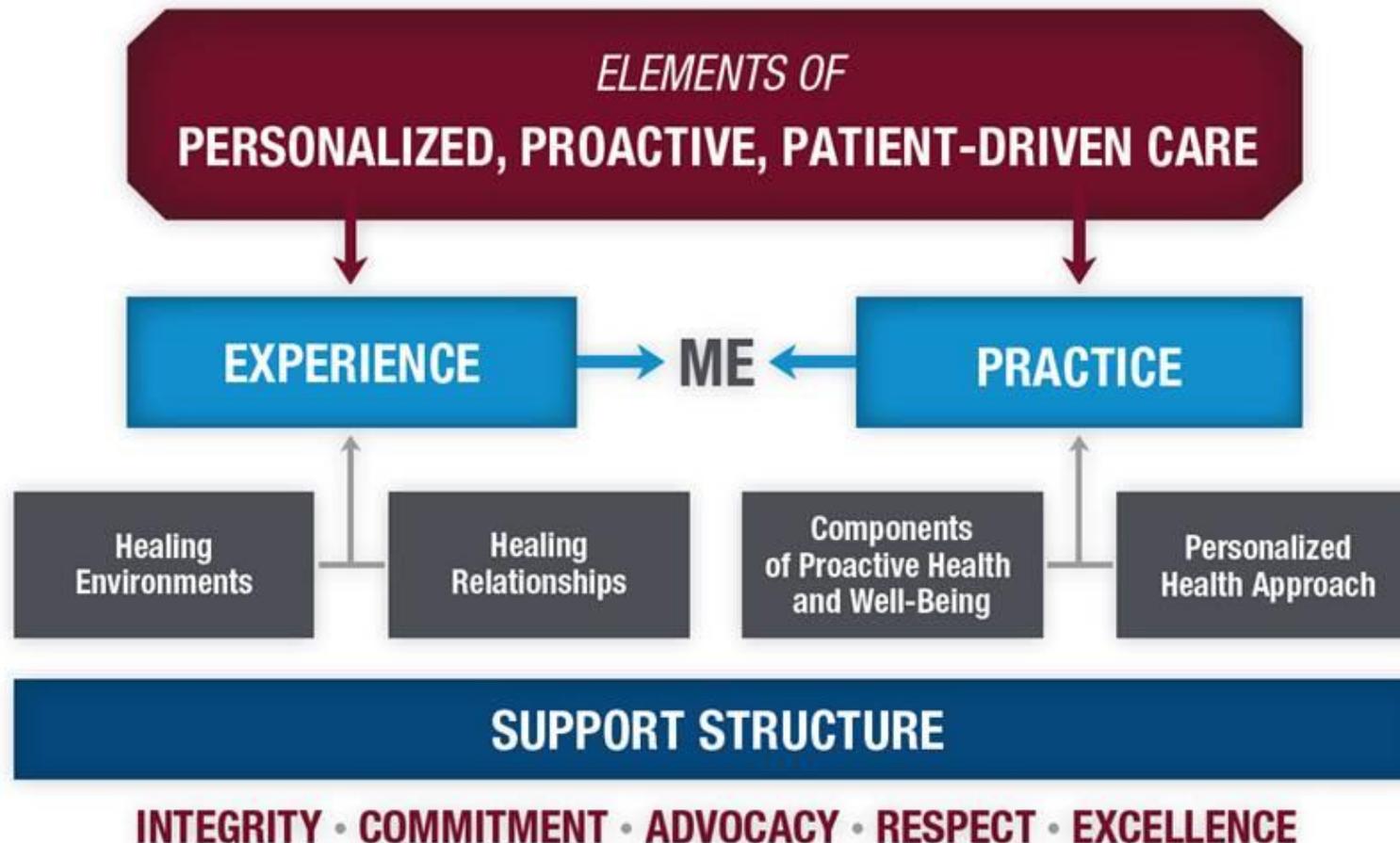
# Study Context

- VA patient-centered care movement continues to mature
  - Patient-Aligned Care Teams (PACTs) began in 2010
  - VA established Office of Patient-Centered Care & Cultural Transformation (OPCC&CT) in 2010 to guide transformation toward patient-centered care more broadly
- OPCC&CT Centers of Innovation (COIs)
  - 4 VA facilities funded in 2010 as COIs
  - 2 HSR&D COINs funded as evaluators
    - Hines: Center for Evaluation of Practices and Experiences of Patient Centered Care (CEPEP)
    - Bedford: Evaluating Patient Centered Care in the VA (EPCC-VA)

# CEPEP's Evaluation Framework

- 4 Overall Aims
  - Aim 1: Implementation
  - Aim 2: Outcomes → primary and secondary data
  - Aim 3: Financial
  - Aim 4: Reliability and Validity of Assessment Tools
- This presentation
  - Aim 2: Outcomes using secondary data

# COIs Conceptual Framework



# Examples of Innovations

- Environment of care
  - Physical changes/Aesthetic
  - Noise
- Experience of Care
  - Complementary and Alternative Therapies/Nutrition
  - Health Coaching
  - Pharmacy services/Dispensing centers

# Hypotheses → PCC-sensitive variables

- Veteran level
  - V1: Appropriate provider in an appropriate setting
  - V2: Better clinical indicators for patients with chronic illness (2008 cohort)
- Employee level
  - E1: Providers engage in more PCC practices
  - E2: Greater provider satisfaction with work environment
- Facility level
  - F1: Continuity of care (primary care vs emergency/urgent care)
  - F2: Appropriate setting (hospital/LOS/readmission)
  - F3: Improved access to care (appointments)
  - F4: Patient engagement (no show rates)
  - F5: Patient satisfaction—experience of care
  - F6: Patient satisfaction—environment of care
  - F7: Better clinical indicators for patients with chronic illness (facility-wide)
  - F8: Providers engage in PCC practices
  - F9: Providers satisfied with work environment

# Evaluation Challenges

- Making sense out of chaos: how do you evaluate PCC with 4 separate approaches in 4 different contexts?
  - Look for global trends across all sites combined?
  - Focus on trends within each site?
  - Do both?
- How can we maximize the use of existing VA administrative databases to evaluate PCC trends?
  - Typical health encounter data aren't enough
  - Innovation:
    - Additional data sets
    - Multiple levels of analysis

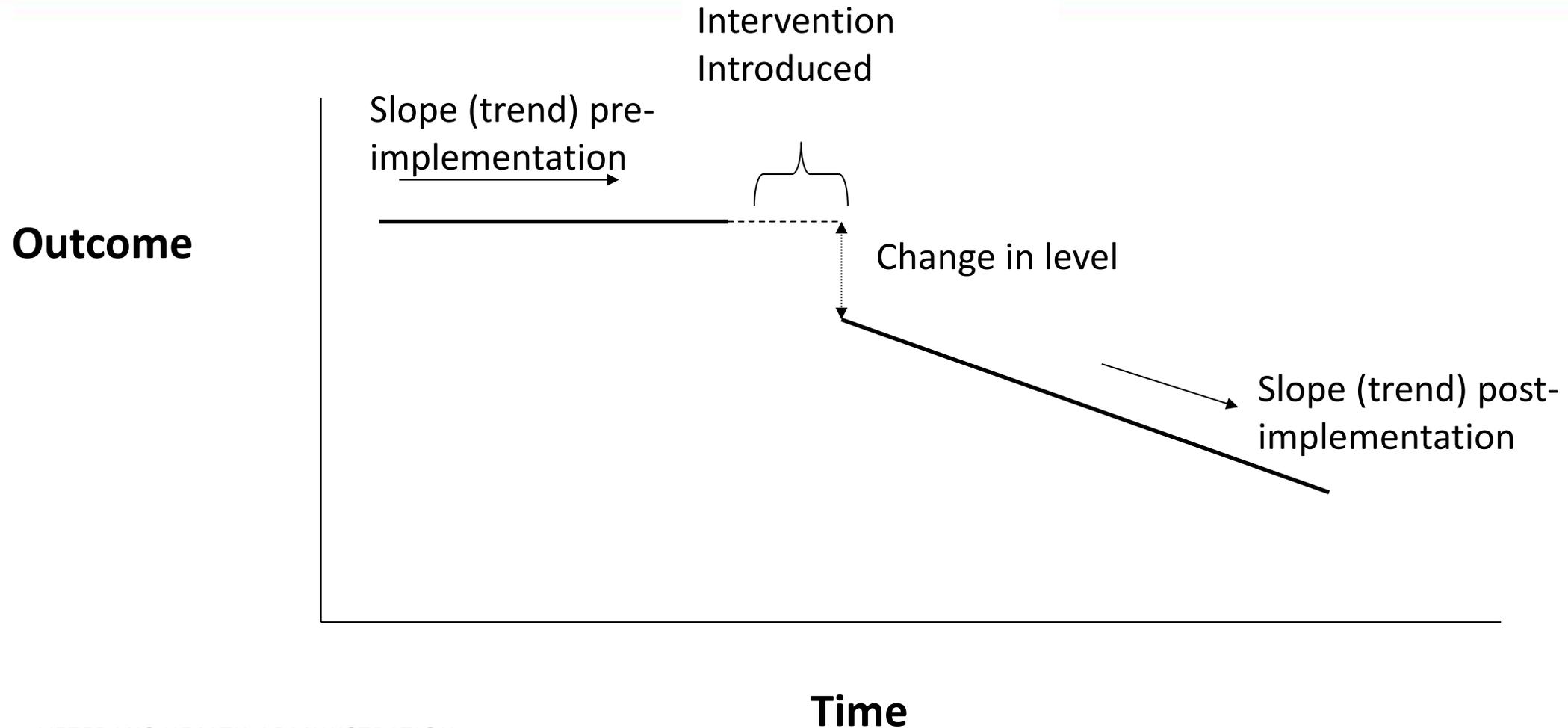
# Presentation Goals

- Describe databases novel to most VA HSR&D researchers
  - PACT Compass
  - All Employee Survey (AES)
  - Survey of Health Experiences of Patients (SHEP)
- Delineate the methods used to
  - Map these data sources to evaluation hypotheses
  - Identify indicators within these data sources that addressed our evaluation hypotheses
- Explain how these data sources complemented commonly used VA health encounter data (e.g., Patient Treatment File, National Patient Care Database)

# Evaluation Design

- Retrospective, observational, matched comparison group design
  - 4 COIs, 4 Comparison sites
  - Matched geographically and complexity rating
- Sample
  - Veteran cohort
  - Employees
  - Patients (inpatient and outpatient)

# Analytical Framework



# Data Novel to VA Database Researchers

- PACT Compass
  - PACT-level outpatient quality performance metrics
  - Monthly administrative summary report
- Survey of Health Experiences of Patients (SHEP)
  - Self-reported patient satisfaction with services received
  - Delivered via internet to monthly samples of inpatient & outpatient service users
- All Employee Survey (AES)
  - Individual level job satisfaction, workgroup level organizational climate
  - Annual, web-based survey of full-time VA employees

Hypothesis	Encounter	PACT Compass	SHEP	AES
<b><i>Veteran Level</i></b>				
V.1: Appropriate provider in an appropriate setting	X			
<b><i>Employee Level</i></b>				
E2: Greater provider satisfaction with work environment				X
<b><i>Facility Level</i></b>				
F1: Continuity of care (primary vs emergency/urgent)		X		
F5: Patient satisfaction—experience of care			X	
F6: Patient satisfaction—environment of care			X	
F.9: Providers satisfied with work environment				X

# Patient Access, Utilization

Hypothesis	Variable/Measure	Source
V1: Appropriate provider in an appropriate setting	Percent of all outpatient clinic visits that were to primary care	Encounter
	Percent of all outpatient clinic visits that were to specialist	Encounter
	Covariates: Age, Sex, Race/ethnicity, Marital status, Number of co-morbidities, VA copayment status, Distance to facility	Encounter
F1: Continuity of care	% primary care visits to PCP	PACT Compass
	Ratio of emergency department (ER) encounters to primary care encounters	PACT Compass

# Provider Satisfaction

Hypothesis	Variable/Measure	Source
E1: Greater provider satisfaction with work environment	% nurses, MD, NPs who answered 4 or 5 (5-pt scale) on AES overall job satisfaction item: “Compared to what you think it should be, what is your current overall level of satisfaction with your job?”	AES
F9: Providers satisfied with work environment	% Employees who answered 4 or 5 (5-pt scale) on AES overall job satisfaction item: “Compared to what you think it should be, what is your current overall level of satisfaction with your job?”	AES

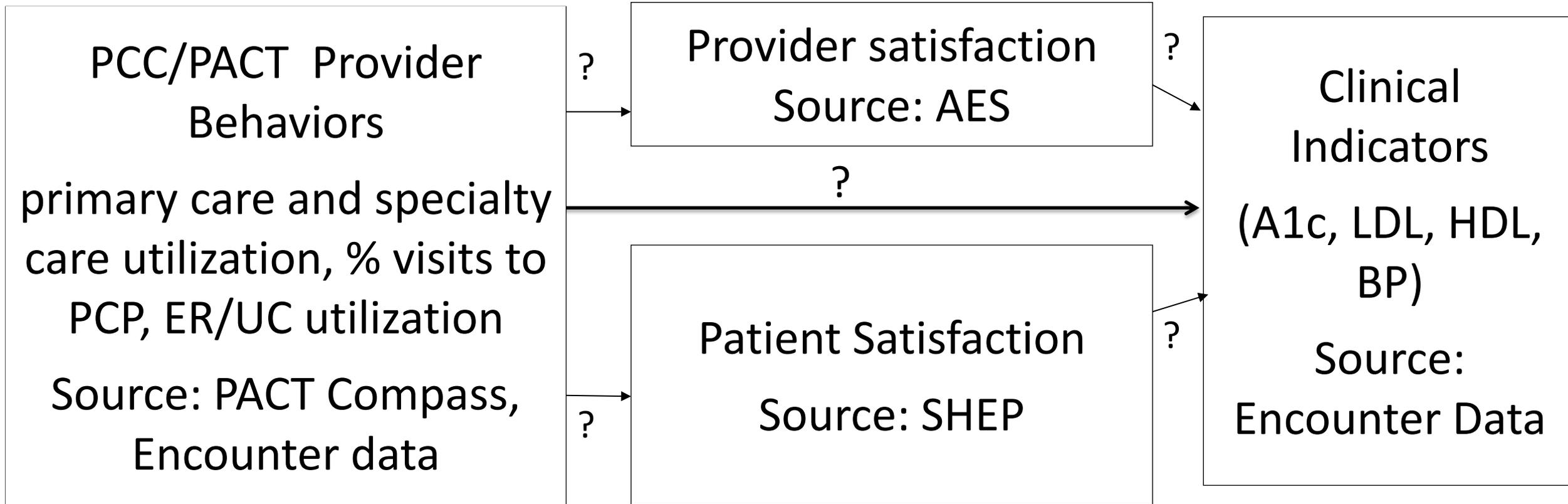
# Patient Satisfaction: Experience of Care (SHEP)

Inpatient Survey Items	Outpatient Survey Items
During this hospital stay, how often did <b>nurses show respect</b> for what you had to say?	In the last 12 months, when you needed care right away, how often did you <b>get care as soon as you thought you needed it?</b>
During this hospital stay, how often did <b>doctors show respect</b> for what you had to say?	In the last 12 months, how often did your <b>personal VA doctor or nurse spend enough time with you?</b>
During this hospital stay, when there was more than one choice for your treatment or health care, <b>did providers ask which choice you thought was best</b> for you?	In the last 12 months, did a doctor or other health <b>provider talk with you about the pros and cons of each choice</b> for your treatment or healthcare?
During this hospital stay, <b>did providers talk with you about the pros and cons of each choice</b> for your treatment or health care?	In the last 12 months, when there was more than one choice for your treatment or healthcare, <b>did a doctor or other health provider ask which choice was best</b> for you?

# Patient Satisfaction: Environment of Care (SHEP)

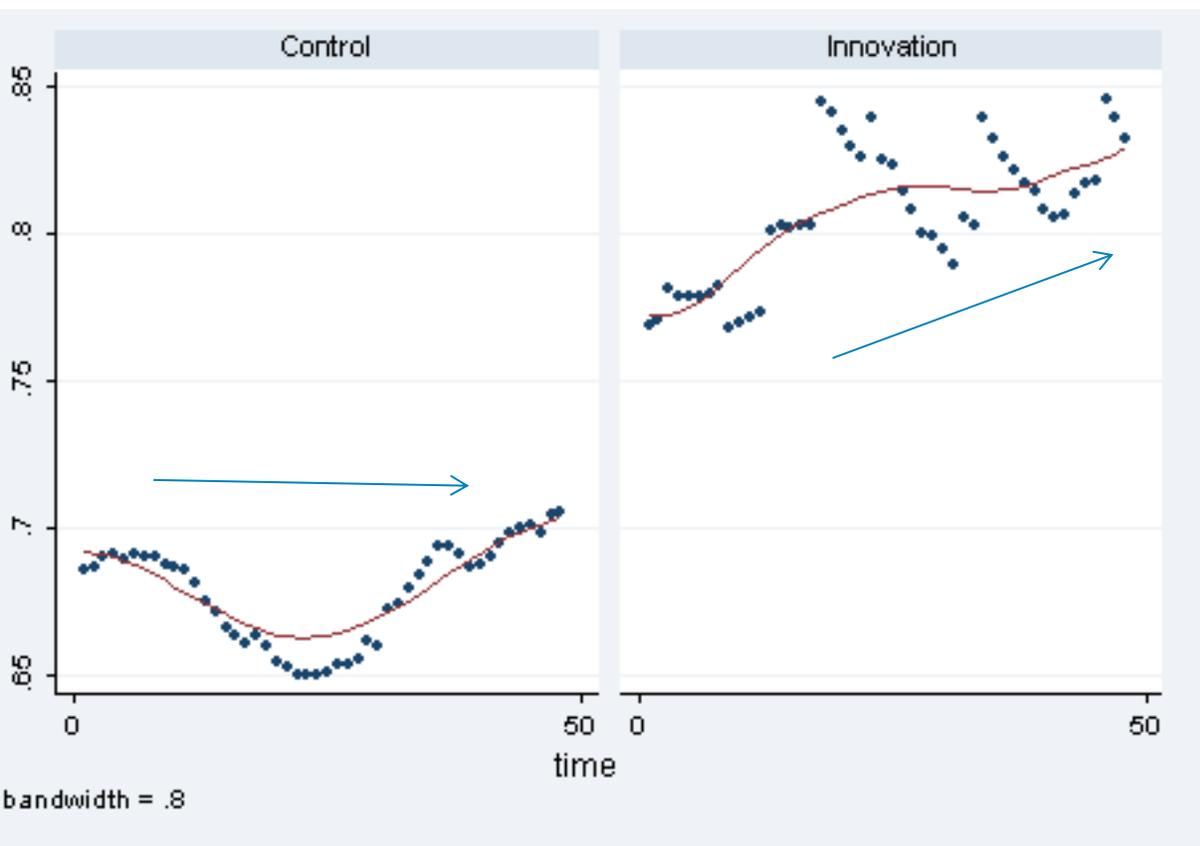
Inpatient Survey Items	Outpatient Survey Items
How would you rate the following aspects of your room: <b>Privacy of your room</b>	How would you rate the following aspects of the examination or treatment room: <b>Cleanliness of the room</b>
How would you rate the following aspects of your room: <b>Noise level</b>	How would you rate the following aspects of the examination or treatment room: <b>Privacy while in the room</b>
	How would you rate the following aspects of the examination or treatment room: <b>Noise level</b>
VETERANS HEALTH ADMINISTRATION	How would you rate the following aspects of the equipment and facilities: <b>Cleanliness of the reception/waiting area</b>

# Emerging Model

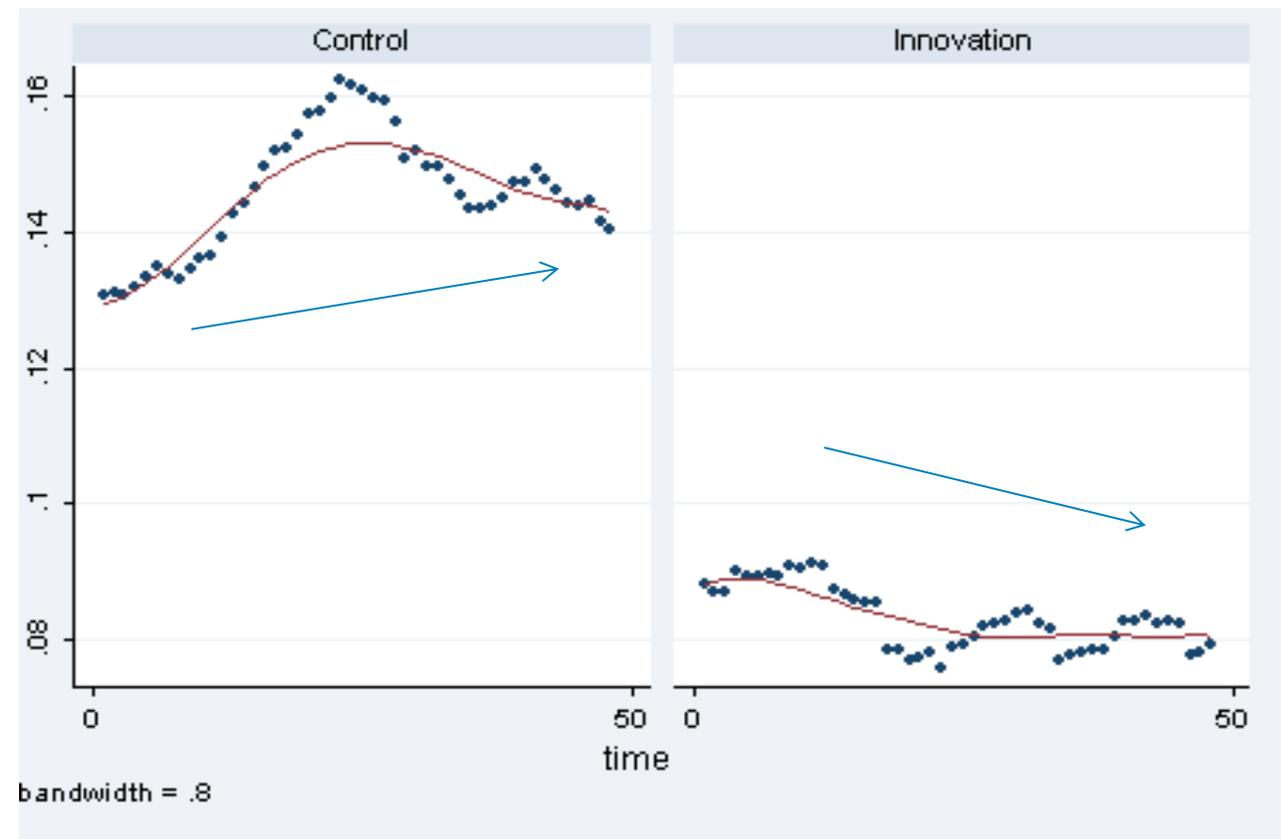


# For Example: Primary Care and ER Utilization

## Percent primary care visits with PCP



## ER-to-Primary Care Ratio over Time

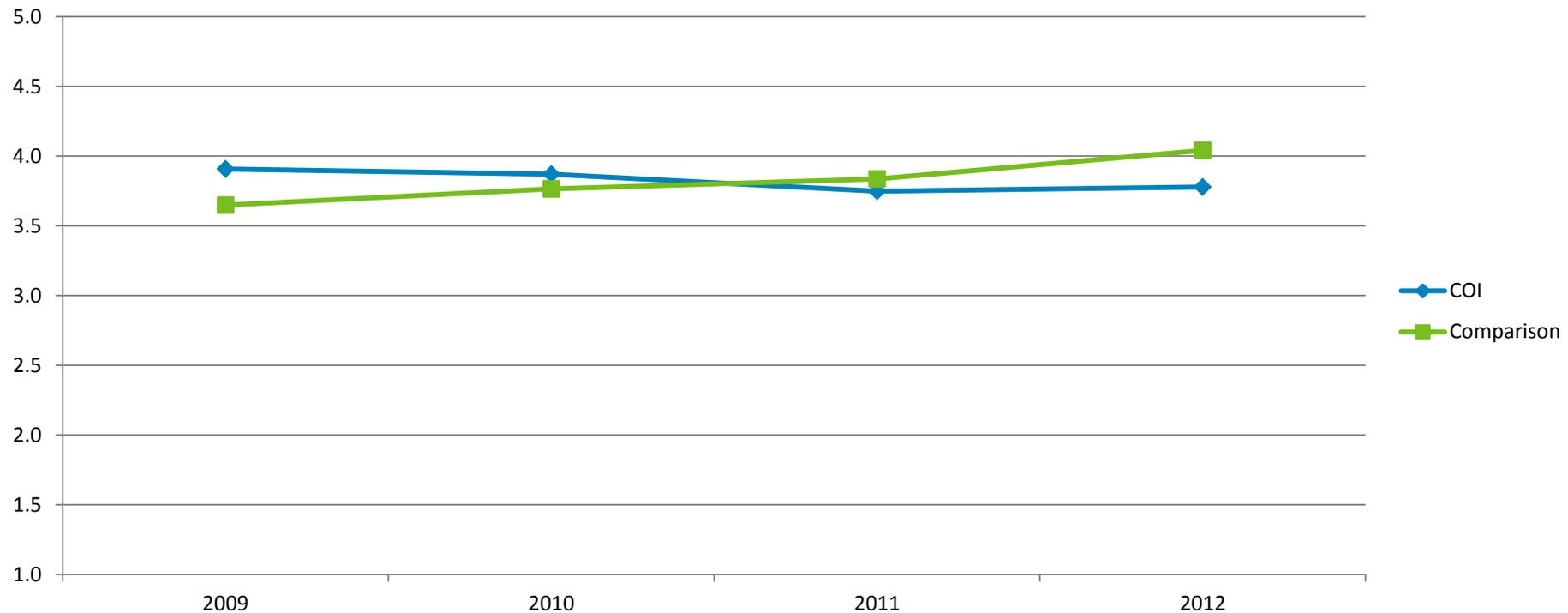


# Primary Care and Specialty Care Utilization: 2008 Veteran Cohort Trends

	COI			Comparison		
Number of Primary Care Visits	6.36	-4%	< 0.001	6.71	0%	0.617
Number of Specialty Care Visits	0.80	8%	< 0.001	1.16	25%	< 0.001

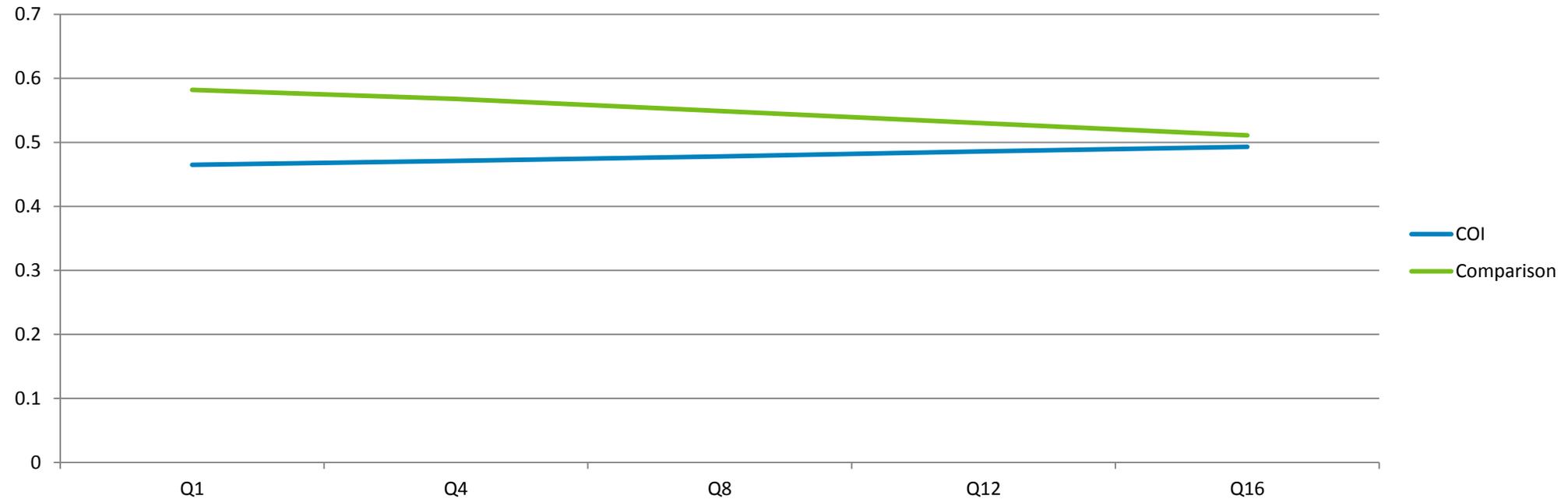
# Provider Satisfaction – example finding

Satisfaction with Amount of Work among Advanced Practice Nurses



# Patient Satisfaction – example finding

Satisfaction with outpatient care, proportion with favorable response



# Concluding Story

