

PACT in Context: High Reliability Attributes Among a Sample of High Performing PACT Sites

VISN 6 PACT Demonstration Lab

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Poll Question #1: Your Role

Getting to know our audience... What is your role?

- a) Provider (MD/DO, NP, PA)
- b) PACT Team Member (RN, LPN, Psychologist, SW, PharmD)
- c) Executive Leadership and/or Management Personnel
- d) Researcher or Analyst
- e) Other

Objectives

1. Present outcomes from an evaluation project that was developed to identify contextual and system factors that affect PACT implementation
2. Emphasis of evaluation effort:
 - Provide recommendations for improving PACT implementation that align with principles of High Reliability Organizations^{1,2} (HRO) and the VHA Blueprint for Excellence³
 - Provide outcomes to the field for use in process and quality improvement efforts
 - Establish a high reliability evaluation tool for assessing processes and supporting infrastructure that affect PACT implementation

PACT: Brief Overview

- PACT; Patient Aligned Care Teams⁴
 - Patient Centered Medical Home (PCMH)
 - Implemented in 2010
- Core to many principles and of the VHA Blueprint for Excellence³
- Key organizational factors are linked to lower burnout and reduced likelihood of mortality and hospitalization^{5,6}
- Key question: to what degree do organizational factors affect outcomes?

Poll Question #2: Principles of High Reliability Organizations

How knowledgeable are you with the principles and characteristics that define high reliability organizations?

- a) No Knowledge
- b) Basic Knowledge (know the term and its general emphasis)
- c) Moderate Knowledge (know the key characteristics and can describe how HROs function)
- d) Expert Knowledge (can recite key HRO characteristics, describe how HROs function, and actively use these in everyday practice, research, etc.)

High Reliability Organizations (HROs)

- **Defined:** Consistent performance at high levels of safety, process, and outcomes over a long period of time.^{1,2,7}
- **Further Defined:** HROs are organizations with systems in place that are exceptionally consistent in accomplishing their goals and avoiding potentially catastrophic errors.^{1,2,7}
- **5 Core principles¹**
 - 1) Preoccupation with Failure
 - 2) Reluctance to Simplify
 - 3) Sensitivity to Operations
 - 4) Deference to Expertise
 - 5) Commitment to Resilience

Poll Question #3: Performance Measures

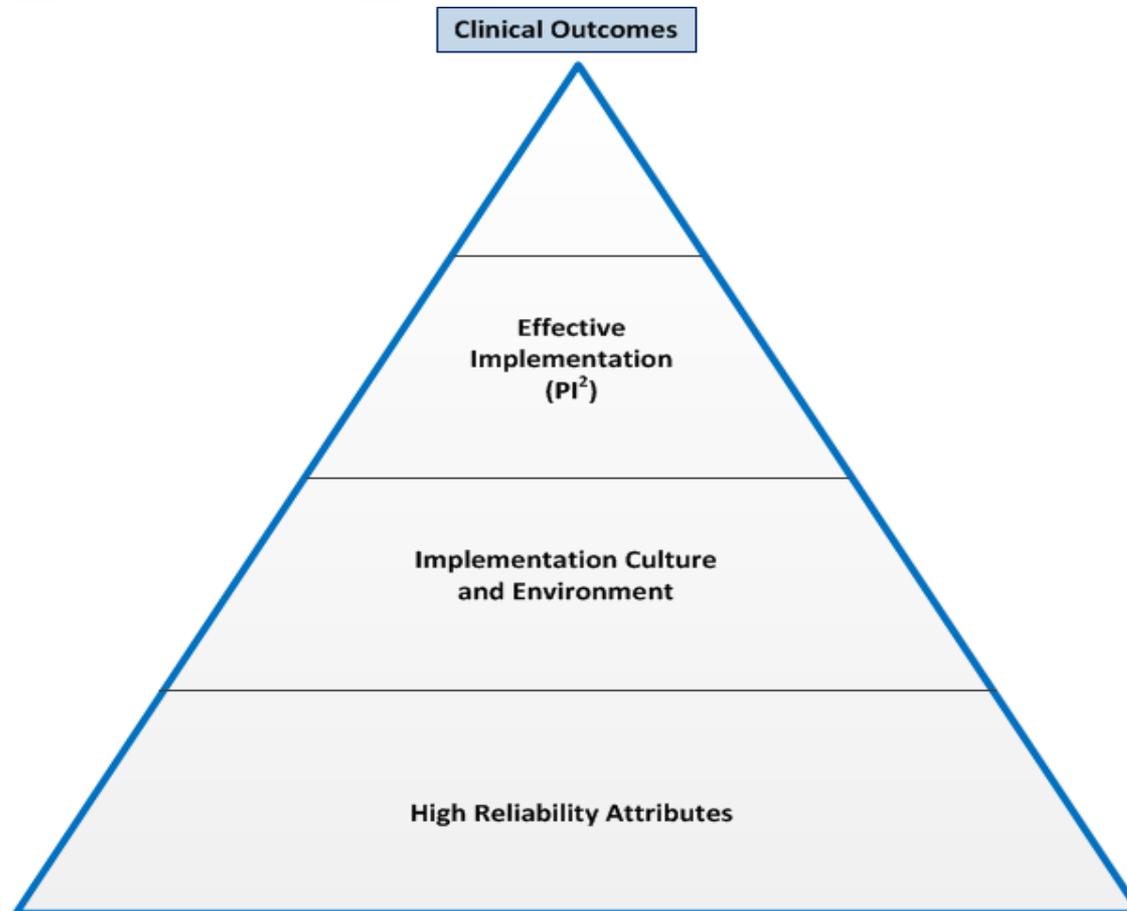
Of the following, which VA-specific performance measures are **MOST** critical to your everyday activities and performance?

- a) Strategic Analytics for Improvement and Learning (SAIL)
- b) Specialty Productivity Access report and Quadrant Tool (SPARQ)
- c) External Peer Review Program (EPRP)
- d) PCMM/PACT Performance Measures
- e) PACT Implementation Index (PI²), or other research-based measures of performance

PI² as a Measure of PACT Performance

- PACT Implementation Index⁸ (PI²)
 - Composite Score (-8 to +8)
- 8 Subdomains
 - Access
 - Continuity
 - Care Coordination
 - Self-Management Support
 - Shared Decision Making
 - Patient Centered Care and Communication
 - Team-Based Care

Conceptualization: HRO Processes and Context within PACT



Overview of Methods

- 12 total site visits, 1 pilot site

	High PI^2 (>2)	Low PI^2 (<1)
VAMCs (16,000-29,000 patients)	4	2
Large CBOCs/HCCs (8,000 – 10,000 patients)	2	1
Mid-sized CBOCs (2,800 – 3,400 patients)	2	1

- 8 sites chosen for further review of qualitative and high reliability document review
 - 4 high performing sites (PI^2 top quartile)
 - 4 low performing site (PI^2 bottom quartile)
- Evaluation Tools
 - PACT Features Survey
 - Qualitative Interview and Consolidated Framework for Implementation Research (CFIR)
 - PACT-related documents

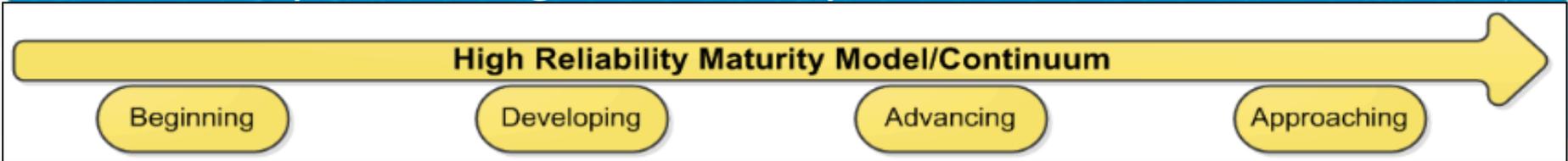
Review of PACT Related Documents

- Strategic plans
- Organizational Work Charts
- Meeting Minutes from PACT-centric committees
- Information specific to PACT education and training
- PACT education and training materials, toolkits, etc.
- Position Descriptions and Functional Statements
- Care Coordination Agreements (CCAs)
- Toolkits, processes, promising practices
- Protocols and procedure documents

Distribution summary of raw domain-specific average scores: High (n=4) and Low (n=4) performing sites

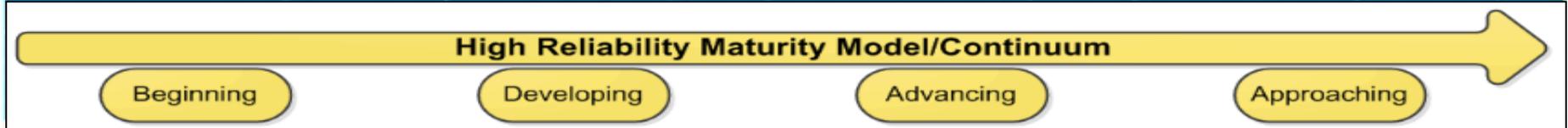
PI ² Domain	BAH Performer Group	PI ² Domain Score Values					Wilcoxon rank sum p-value
		High	75 th percentile	Mean	25 th percentile	Low	
Access	High	.72	.63	.54	.45	.35	p=0.11
	Low	.36	.36	-.11	-.53	-.68	
Communication	High	.45	.42	.34	.27	.20	p=0.06
	Low	.18	-.38	-.51	-.80	-.87	
Comprehensiveness	High	.78	.60	.59	.53	.50	p=0.03
	Low	.46	-.08	-.23	-.50	-.68	
Continuity	High	.77	.60	.43	.22	.14	p=0.11
	Low	.31	.07	-.14	-.39	-.51	
Coordination	High	.61	.40	.33	.20	.14	p=0.03
	Low	.09	-.22	-.24	-.37	-.38	
Self-Management	High	.68	.59	.40	.24	.06	p=0.06
	Low	.21	-.18	-.27	-.46	-.56	
Shared Decision-Making	High	.51	.44	.22	.05	-.17	p=0.06
	Low	.09	-.14	-.24	-.40	-.45	
Team	High	.48	.38	.21	.03	-.01	p=0.85
	Low	.50	.25	.16	-.01	-.03	

The Concept of a High Reliability Maturation Model



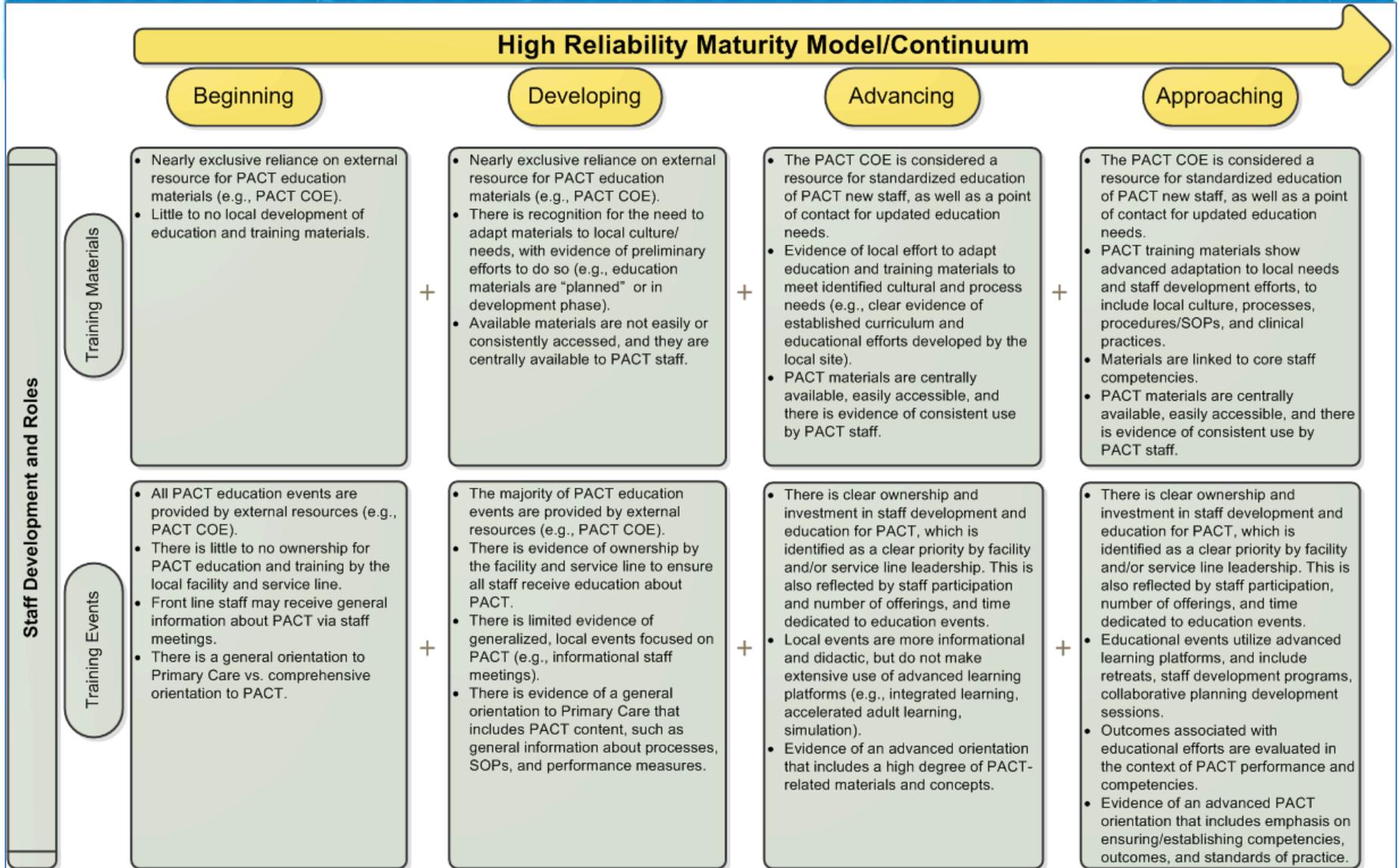
- Utilized to evaluate documents; Based on Chassin and Loeb¹
- Categorical placement of documents into three constructs and multiple subdomains:
 - a) Strategic Planning
 - Organization Work Chart
 - Governance
 - Meeting Minutes
 - Strategic Planning
 - b) Staff Development and Roles
 - Training Events
 - Training Materials
 - c) Implementation Practice
 - Scope of Practice
 - Care Coordination Agreements
 - Toolkits

The Concept of a High Reliability Maturation Model



- Using template and definitions provided by Chassin and Loeb, developmental levels of each construct were anchored through review of literature and Subject Matter Expert (SME) opinion.
- Under this categorical scoring system
 - Beginning = 1
 - Developing = 2
 - Advancing = 3
 - Approaching = 4
- Documents were independently rated by two SMEs, producing a mean document score.

Sample Construct and Domains: Staff Development and Roles



Analysis and Identified Limitations

■ Analysis:

- Descriptive and Frequency analysis
- Qualitative content review and analysis
- Exploratory non-parametric and regression analysis for purposes of identifying patterns in observations rather than test statistical hypotheses
 - P value set at $<.20$
 - Evaluated against eight PI² domains

■ Identified Limitations:

- Small sample size
- Variability of qualitative responses
- Consistency of documents

Overview of Outcomes

- 1) Leadership support and effective coordination across the three main services (Primary Care, Nursing, HAS) is important.

PACT High Performers – PACT as a Leadership Priority Site Visit Interviews (success stories)

Site Visit Example 1: PACT is top leadership priority, at executive, senior and supervisory leadership levels, as evidenced by staffing. All teamlets have a provider, RN, LVN and extended team members. Leadership is focused on maintaining 3:1 ratio.

Site Visit Example 2: We have a weekly Clinical Operations meeting attended by COS and Associate Director, PACT managers and Nurse Exec. During this meeting, attendees present data and discuss where patient care struggles need attention.

Site Visit Example 3: Our chief nurse, ACOS, and HAS supervisor meet weekly to discuss role clarity, identify any issues and resolve any problems or celebrate successes.

Site Visit Example 4: One clinical site highlighted their PACT Steering Committee, which includes the Primary Care Practice Manager, Clinic Nurse Manger, business manager, health promotion and disease prevention coordinator, and representatives from the CBOCs, Social Work, and Mental Health that meet monthly. Additionally, there are monthly Primary Care meetings that are attended by all of primary care, which discuss PACT related updates and issues. This site also has a Resource Board that has representation from primary care leadership, which meets with the Director to discuss resources and staffing.

PACT High Performers – Service Line Coordination Site Visit Interviews (success stories)

Site Visit Example 1: Acting Physician Lead, Clinical Manager, Clinic RN Manager and Clinic MSA Supervisor meet weekly to discuss issues and coordinate information dissemination. PACT changes are then communicated through services lines.

Site Visit Example 2: Quad highlighted that front line staff interacts with executives through service lines, matrix management to bring forward issues/concerns. Clinical workers report through their service lines, but they also have a matrix through PC leadership. The matrix then coordinates with the Service Line.

Site Visit Example 3: PACT is led by the Associate Chief of Staff (ACOS). In fact, many disciplines within PACT under ambulatory care report to the ACOS, such as nursing, MSAs, and clinical pharmacists. This reorganization occurred before PACT was implemented and helps to align priorities and minimize competing priorities, since everyone reports to the same service line.

Site Visit Example 4: Executive Leadership has been pushing lean management principles for the last couple of years, everyone goes through belt training and side effect/added benefit is people form relationships between service lines.

Site Visit Example 5: The PACT Steering committee, the Primary Care Leadership Council, the Primary Care bi-weekly sub council of leadership from all CBOCs are multi-disciplinary structures that address PACT operations including standard operating procedures, roles and responsibilities, and some staffing coordination.

Overview of Outcomes

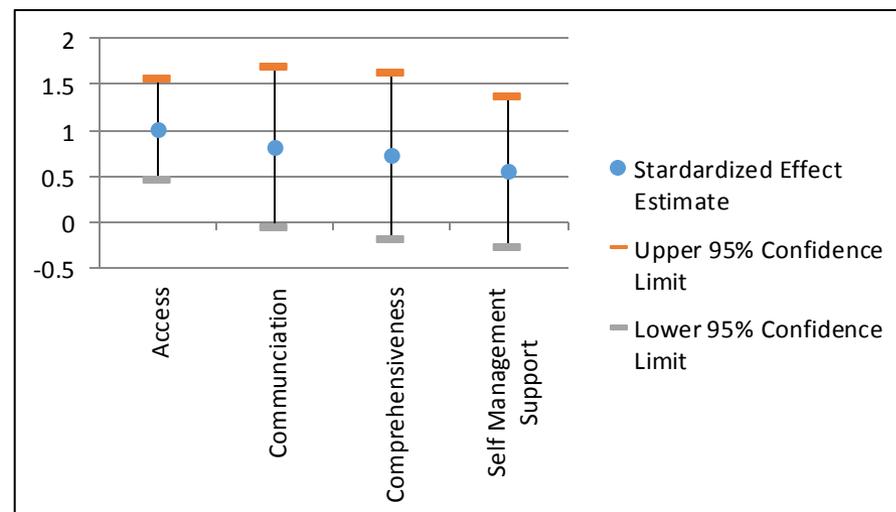
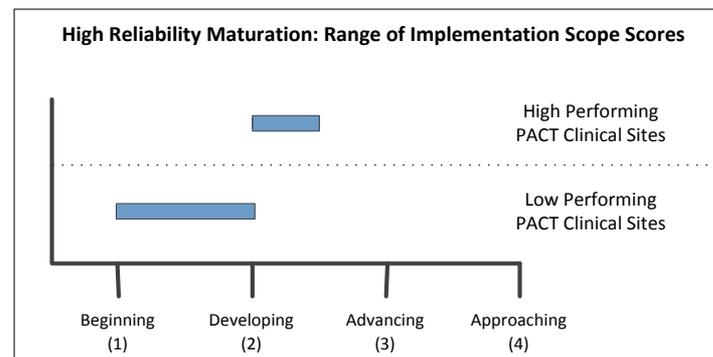
2) A consistent trend emerged during evaluation of PACT-related documents, with high-performing PACT sites outperforming low-performing PACT sites in nearly every element associated with the high-reliability areas of Strategic Planning, Staff Development and Roles, and Implementation Practice.

- Presentation will focus on 2 of 3 domains that are demonstrated consistent and reliable relationships with PI² domains
 - 1) Implementation Practice
 - 2) Staff Development and Roles

Construct: Implementation Practice

- Clear difference in High vs. Low sites in implementation scope
- Implementation scope appears to influence ($p < .20$):
 - Access
 - Communication
 - Comprehensiveness
 - Self-Management Support
- Higher Implementation Scope affects PACT broadly and may help improve access

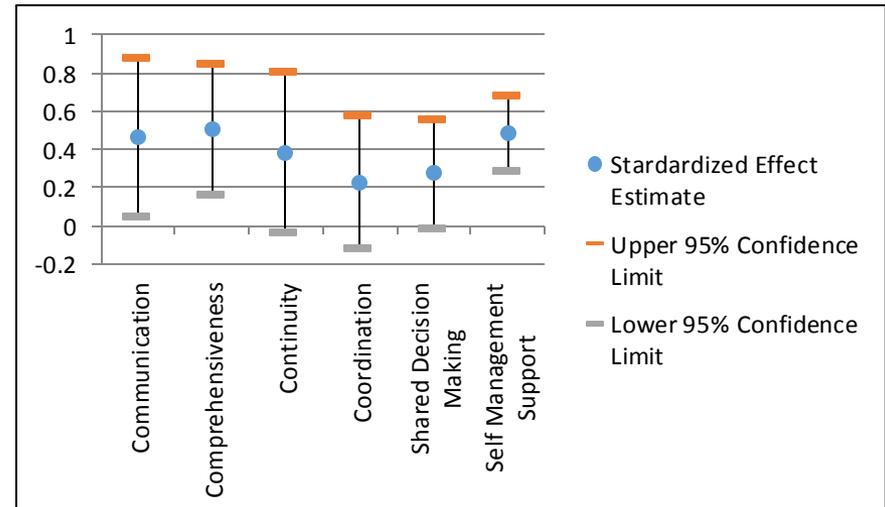
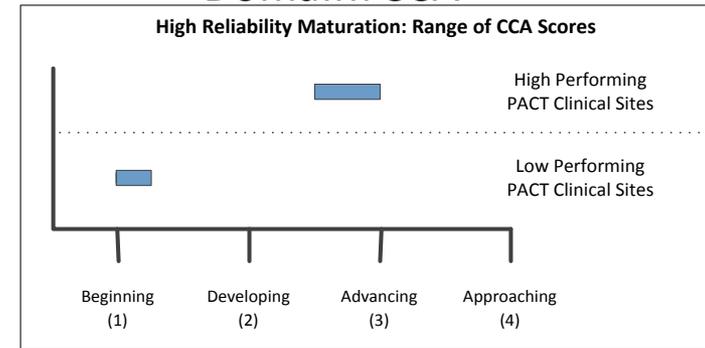
Domain: Implementation Scope



Construct: Implementation Practice

- Clear difference in High vs. Low sites in CCA use and implementation
- CCAs appears to influence ($p < .20$):
 - Communication
 - Comprehensiveness
 - Continuity
 - Coordination
 - Shared Decision Making
 - Self-Management Support
- Effective CCAs affect PACT quality of care and QI opportunities broadly, including through improved communication and coordination of care

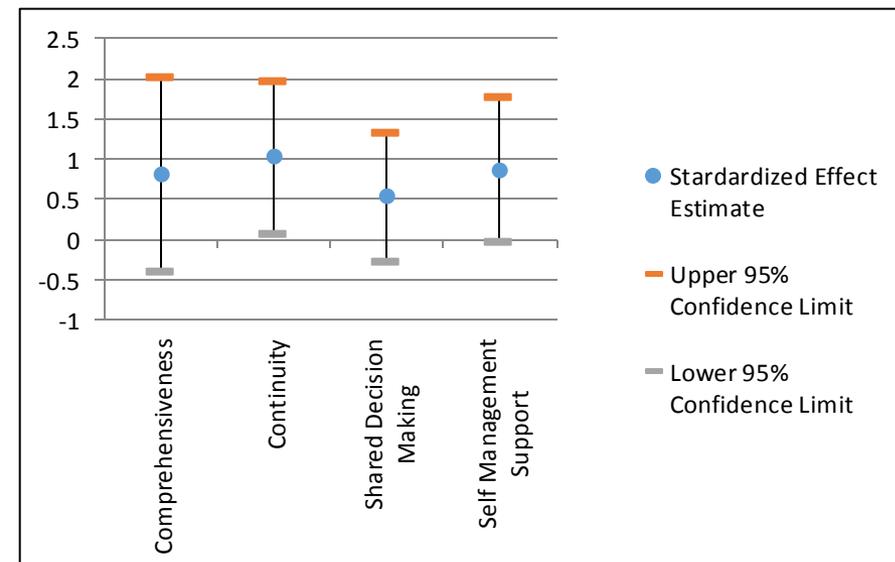
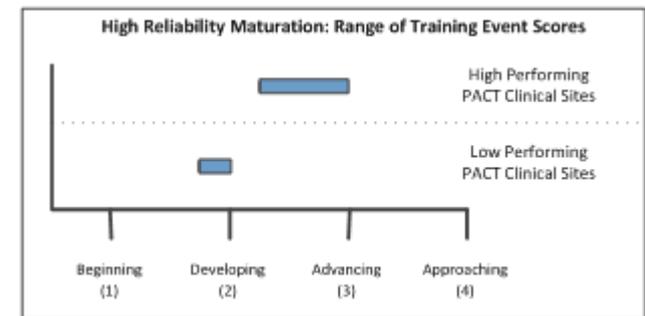
Domain: CCA



Construct: Staff Development and Roles

- Clear difference in High vs. Low sites in education platforms utilized
- Training Events appears to influence ($p < .20$):
 - Comprehensiveness
 - Continuity
 - Shared Decision Making
 - Self-Management Support
- Advanced education techniques help improve factors that lend to effective quality improvement and engagement in PACT and patient care

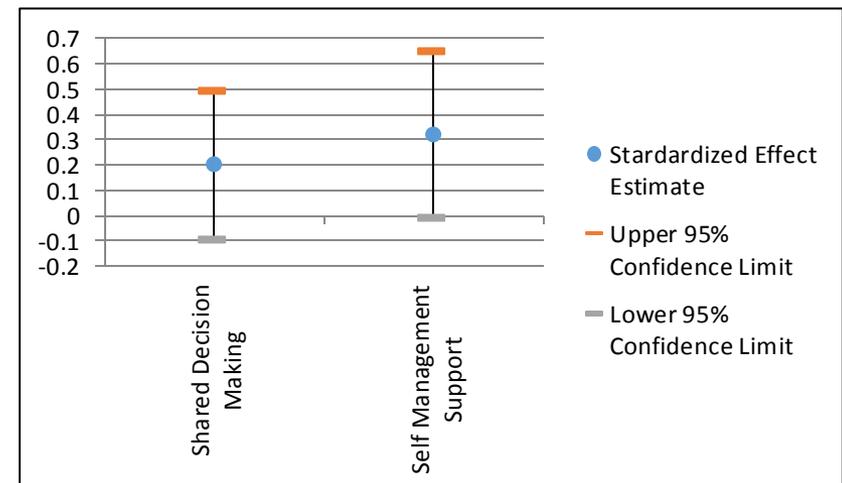
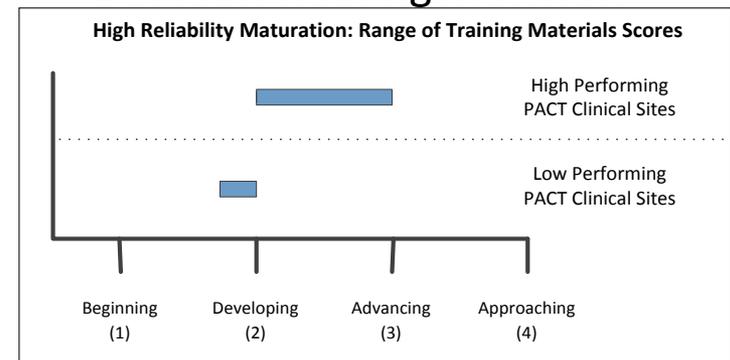
Domain: Training Events



Construct: Staff Development and Roles

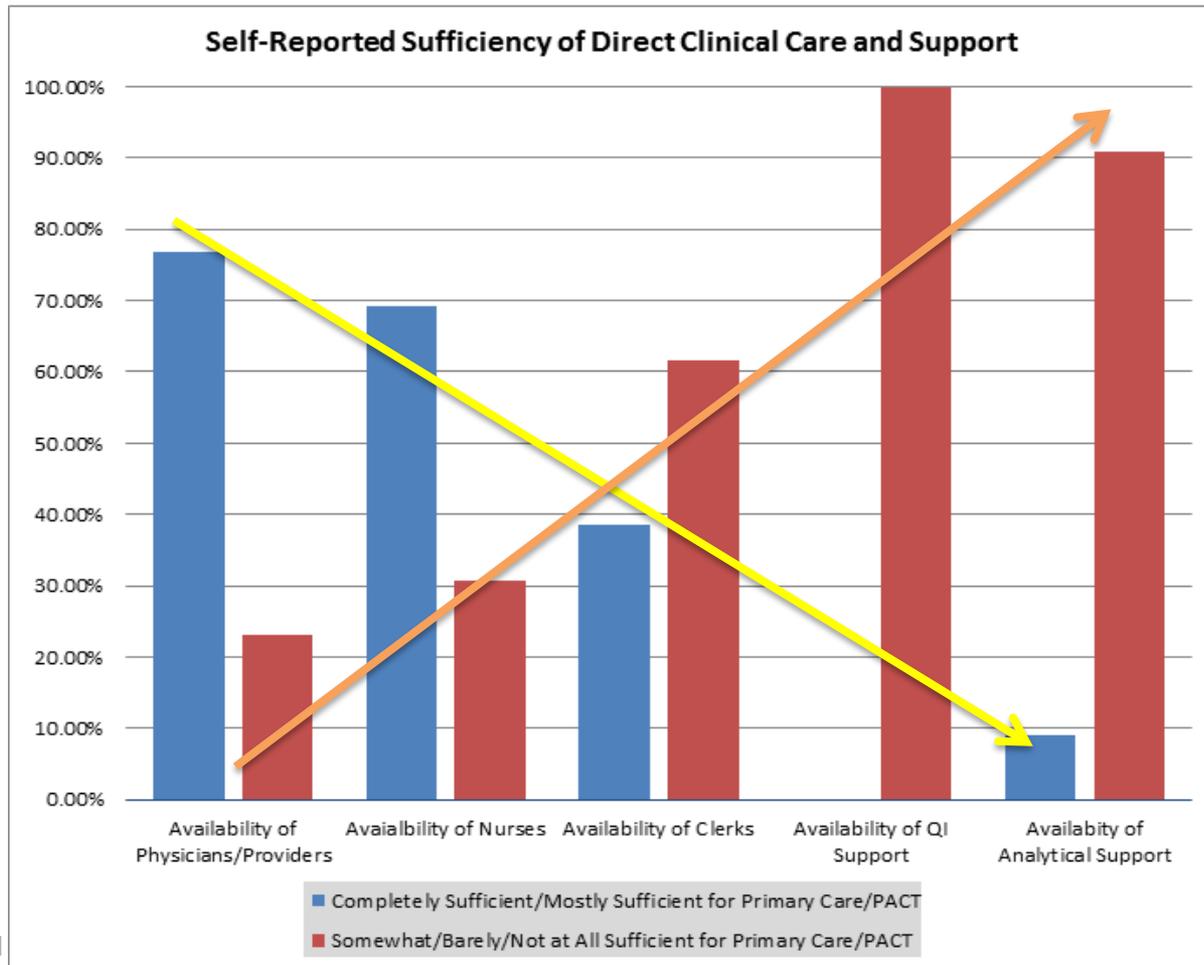
- Clear difference in High vs. Low sites in Training Materials
- Training Materials appears to influence ($p < .20$):
 - Shared Decision Making
 - Self-Management Support
- Materials and toolkits seem to help in establishing collaborative working relationships and self-management among Veterans

Domain: Training Materials



Additional Finding of Interest

3) When compared to other PACT positions, primary care services consistently reported insufficient access to quality improvement (QI) and analytics resources/staffing.



Poll Question #4: Continuous Improvement

Which process improvement method are you most familiar or acquainted with?

- a) Plan Do Study Act (PDSA)
- b) Lean
- c) Six Sigma
- d) Total Quality Management (TQM)
- e) Evidence Based Quality Improvement (EBQI)

Implications

- Emphasis on implementing HRO characteristics can help improve effectiveness of leadership and coordination across services that is integral for effective, efficient PCMH execution
 - Emphasis on process measures vs. outcome measures
 - EBQI^{9,10} may serve as a method for increasing implementation of high reliability systems
- Improvements in Implementation Scope may improve access, quality, and Veteran self-management of chronic health conditions.
 - Again EBQI may help facilitate growth of Implementation Scope
 - True Implementation Scope will likely reduce complexity of care across systems

Implications

- Effective CCAs may facilitate effective, coordinated, and quality health care.
 - Incorporate lean (e.g., pull-based system) and EBQI
 - Measures of effectiveness based on high-reliability systems
- Utilization of advanced education methods and learning platforms is important for enhancing quality of care in PACT.
 - The expectation of knowledge transfer to behavior is likely affected by the learning platform and method.
 - Use of aptitude-based education and information is still important for teaching new skills unfamiliar to health professionals (e.g., patient self-management skills and communication).
- Greater integration of QI, PI, and evidence based resources at the facility level is needed to ensure effective implementation of models like PACT.

Project-Specific Future Directions

- High reliability maturation model warrants further validation and development
 - To facilitate evaluation of site-specific processes and patient flow and inform QI efforts
 - To evaluate staff education and development efforts at multiple levels of influence
 - To promote and integrate EBQI
 - To assist with policy development and resource deployment

Questions



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