



# Using the VA All Employee Survey for implementation research: Example of workplace climate and morale in primary care clinics as predictors of medical home Implementation

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## Poll Question #1

- Have you completed the VA All Employee Survey in the past year?
  - Yes
  - No
  - Not sure

## Poll Question #2

- Have you conducted research with VA All Employee Survey data or used VA All Employee Survey data in quality improvement activities?
  - Yes
  - No
  - Not sure

# Aims

- Overview of All Employee Survey (AES) and opportunities to use AES data to study workplace climate & morale
- Discuss challenge of linking AES to other data
- Review example testing association of AES workplace climate & morale with primary care clinic implementation of medical home

# Overview of All Employee Survey

## Purpose

- Organizations survey employees because they want to know something about employees and other organizations
- Research demonstrates connections between employee attitudes and organizational outcomes
  - employee turnover, customer satisfaction, quality of care, and patient safety
  - Belief that improving workplace can improve outcomes
- Survey information can be used to identify areas for benchmarking and improvement
  - Track and trend data

# Overview of All Employee Survey

## Purpose

- Feedback from employees to organization on worker satisfaction and workplace perceptions provides way to identify areas going well and those needing improvement
- Feedback used by leadership to improve organizational health and part of performance plans
- AES was developed and has evolved into a way to address these goals and more

# Overview of All Employee Survey

## Purpose

- Every medical center has a designated site coordinator
- They are responsible (with input) for identifying workgroups of employees to receive a unique code for reporting purposes
- Data on each workgroup with a minimum number of responses (n=10 until recently) can be reported back to managers and employees
- Data available to all employees in Pyramid Analytics cube for further analysis
- Process is now currently managed by VA National Center for Organization Development

# Overview of All Employee Survey History

- Started with an interest in 1997 of surveying VA employees about job attitudes and organizational considerations
- Survey team formed around 2002 to study and combine an organizational culture survey with workplace survey
- Surveys underwent pilot testing in 2003 with different modules and scales to about 6000
- Administered using internet (primary method today), IVR, and paper-and-pencil options

# Overview of All Employee Survey History

- In 2004, version 1.0 of the survey was administered to the full census of VA employees
- Next administration in 2006, followed by annual administrations starting in 2007 to current
- Focus was initially VHA, but has expanded to include “all VA” in 2010
- In 2013, version 2.0 of the survey was introduced
  - (removed culture, reframed items from indices to themes, module approach is common)
- Plans for continued administration in FY 16 and beyond

# Overview of All Employee Survey Content

- Four primary sections
- Demographics
  - Gender, age, race, ethnicity, occupation, supervisory level, tenure and more
- Job Satisfaction Index – key job features
  - Satisfaction with direct supervision, coworkers, work amount
- Organizational Assessment Inventory - immediate work group
  - Workplace civility, customer service, psychological safety
- Organizational culture – general atmosphere at the facility overall
  - Group-oriented, bureaucratic, production-oriented, entrepreneurial

## Challenge of linking AES data to other data

- Anonymous survey
- Identifiers: workgroups & parent facilities
  - Workgroups established by site coordinator
  - Don't link to standard site identifiers (e.g., STA6A)
- Different time points



## Example of using AES for clinic-level analysis in VA Patient Aligned Care Team (PACT) evaluation

# VHA primary care practice re-design, April 2010

- **PATIENT ALIGNED CARE TEAM (PACT) INITIATIVE**
- **AREAS OF FOCUS**
  - Expanded access (non face to face visits, secure messaging)
  - Continuity
  - Team based care
- **ELECTRONIC TOOLS**
  - Secure messaging
  - Referral management (specialty care); electronic consultation
- **POPULATION HEALTH TOOLS**
- **INCREASED PRIMARY CARE SUPPORT STAFF**
  - from 2.3 per FTE to 3.0 per FTE primary care provider
  - >1,000 RN case managers hired since 2010

## Other Team Members

**Clinical Pharmacy Specialist** ± 3 panels

**Social Work:** ± 2 panels

**Trainees**

## Integrated Behavioral Health

Psychologist ± 3 panels

Social Worker ± 5 panels

Care Manager ± 5 panels

Psychiatrist ± 10 panels

### Team:

Assigned to 1 panel  
(±1200 patients)

- **Provider: 1 FTE**
- **RN Care Manager: 1 FTE**
- **Clinical Associate (LPN, Medical Assistant): 1 FTE**
- **Clerk: 1 FTE**

**Patient**

**Caregiver**

**Team-Based Care**

# Tracking implementation of PACT: PACT Implementation Progress Index (Pi2)

- Assessed in 2014 from millions of patient records, weighted samples of patient surveys, and a survey of all PC staff
- Consists of seven domains and an overall index score
  - Access; Continuity; Coordination; Team based care; Comprehensiveness; Self management; Communication; Shared decision making, Index
- Validated in 2014 <sup>[1]</sup>

[1] Karin M. Nelson, Christian Helfrich, Haili Sun, Paul L. Herbert, Chuan-Fen Liu, Emily Dolan, Leslie Taylor, Edwin Wong, Charles Maynard, Susan E. Hernandez, William Sanders, Ian Randall, Idamay Curtis, Gordon Schectman, Richard Stark, and Stephan Fihn. Implementation of the patient-centered medical home in the Veterans Health Administration: Associations with patient satisfaction, quality of care, sta burnout, and hospital and emergency department use. *JAMA Internal Medicine*, 174(8):1350-1358, 2014.

# Question: does workplace climate and morale in primary care clinics correlate with greater PACT implementation?

- **Workplace morale:**
  - **Job Satisfaction Index** -13 items representing an individual's view on different work domains
- **Workplace climate:**
  - **Organizational Assessment Inventory** – 31 items representing views of workgroup (locally-defined groups of staff who work together—usually between 5 and 30 employees)

## Linking AES and Pi2

- 2013 AES included brief PACT module that included self-identified STA6A (national site identifier generally corresponding to clinic)
- Created a crosswalk from AES workgroup to STA6A for 2013 AES PACT respondents

## Data completeness

- **2009** AES - 17,543 respondents (306 facilities and clinics, 33% of all PC clinics)
- **2012** AES - 29,318 respondents (418 facilities and clinics, 46% of all PC clinics)
  - Further subsetting of AES data may be necessary
- Not all PACT groups had matching AES data
  - Groups with and without AES data had similar  $Pi^2$  scores (overall Index) and numbers of patients seen

# Methods

- Multiple statistical models and methods were used to identify the strongest relationships between AES constructs and PACT outcomes
  - Mix of data mining and psychometrics
    - Return the most explanatory model of each size, and select the best model based on balancing explained variance and parsimony.
    - Relative importance of predictors: LMG, Genizi (1993), last, first
  - Models examined AES domains independently (JSI, OAI, Culture) including covariates (sex, tenure, supervisory level, and group size)
  - Then, all items across the JSI and OAI subscales were considered simultaneously
  - Supplemental analyses with random forests and conditional inference trees produced similar but specific results, as expected.

Genizi, A. (1993). Decomposition of  $R^2$  in multiple regression with correlated regressors. *Statistica Sinica*, 3, 407-420.

## Poll Question #3

- Which job satisfaction measures do you think are associated with PACT implementation?
  - Work satisfaction (satisfaction with type of work performed)
  - Perceived customer satisfaction
  - Overall job satisfaction
  - Satisfaction with direction supervision
  - Not sure

# Job Satisfaction Index

- In **2009**
    - + Work satisfaction
    - + Perceived customer satisfaction
    - Overall job satisfaction
  - In **2012**
    - + Perceived customer satisfaction
    - Satisfaction compared to two years ago
- + Positive relationship with PACT implementation
- Negative relationship with PACT implementation

Controlling for gender, supervisory levels, tenure, and group size

# Job Satisfaction Index

2009	2012
Perceived customer satisfaction (2.68)	Perceived customer satisfaction (2.27)
Compared to what you think it should be, how satisfied are you with the type of work that you currently do? (2.18)	Satisfaction compared to two years ago (-1.25)
Overall job satisfaction (-2.38)	
Adjusted R <sup>2</sup> = 10%	Adjusted R <sup>2</sup> = 11%

Items with significant associations with the overall implementation score

# Organization Assessment Inventory

- In **2009**
    - + Agreement that processes & services were designed to meet customer needs
    - + Agreement that coworkers take a personal interest in colleagues
    - Environments which require employees to work very fast
  - In **2012**
    - + Agreement that managers set and review organizational goals
    - Environments that encourage new practices and ways of doing business
- + Positive relationship with PACT implementation
- Negative relationship with PACT implementation

Controlling for gender, supervisory levels, tenure, and group size

# Organization Assessment Inventory

2009	2012
Products, services and work processes are designed to meet customer needs and expectations. (2.88)	New practices and ways of doing business are encouraged in my work group. (-1.35)
The people I work with take a personal interest in me. (1.69)	My workgroup manager reviews and evaluates the progress toward meeting goals and objectives of the organization. (1.74)
My job requires that I work very fast. (-1.14)	
Adjusted R <sup>2</sup> = 11%	Adjusted R <sup>2</sup> = 6%

Items with significant associations with the overall implementation score

## Summary - 2009

- PACT implementation is more likely to succeed if employees are satisfied with the type of work they do, feel they provide good customer service, feel they meet customer needs, have caring coworkers.
  - Implies a pre-existing customer-centric focus could make the transition to PACT smoother or more palatable to employees.
- Workgroup perceptions of overall job satisfaction were negatively related to PACT implementation scores.
- These relationships seemed independent of several measures of group composition

# Summary 2012

- PACT implementation is more likely to succeed if **employees feel they provide good customer service**, have managers who **set and monitor goals**, work in a **civil** environment.
  - Implies a pre-existing customer-centric focus could make the transition to PACT smoother or more palatable to employees.
- Ratings of satisfaction change in the last two years were negatively related to PACT implementation
  - Models of change predict a “dip” in change-related perceptions (e.g., Freedman's managed resistance model) <sup>[2]</sup>
- Given the challenges around implementing a new care delivery model employee satisfaction may decline temporarily
  - Importance of conservative leadership could increase, as roles are redefined and resistance to change is overcome.
- These relationships seemed relatively stable, and were generally independent of several measures of group composition (proportion of women, proportion of each supervisory level, and mean tenure).

[2] Freedman, A.M. (1997). The Undiscussable sides of implementing transformational change. *Consulting Psychology Journal: Practice and Research*, 49, 51-76.

# Overall summary

- Detectable relationships between organizational health measures and the success of PACT implementation.
- Models tested explained around 4 - 10% of the variance in PACT implementation index scores, which is substantial given multiple measurements, time points, foci, and measurement instruments.
  - Reinforces the value of healthy workplace climates and satisfied employees
- Implications include supporting the notion that the effectiveness of PACT implementation can be tied to both the organizational climate pre-implementation and during or post-implementation. **PACT implementation would benefit from attending to organizational health issues before during, and after the change.**
- Existing workplace climate is important but not determinative
  - These findings suggest PACT implementation is fostered by a healthy workplace climate, but PACT implementation is not solely a function of the clinics that worked well prior to PACT doing well after PACT.
- These relationships are complex. Some of the negative relationships observed here likely point to real challenges in implementing large scale organizational change, and disconfirm the notion that more of all organizational health indicators is always better or that positive change always leads to immediate positive reactions.

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Thank you!

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