



Center for Evaluating  
Patient Centered Care in VA  
QUERI Partnered  
Evaluation Initiative



Center for Healthcare Organization  
and Implementation Research

# Whole Health System of Care Evaluation

## A Progress Report on Outcomes of the WHS Pilot at 18 Flagship Sites

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Live Whole Health.

VA



Department of Veterans Affairs  
Veterans Health Administration  
Office of Patient Centered Care  
And Cultural Transformation



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# Poll Question 1

*What is your role at the VA?*

- a) Researcher interested in CIH or Whole Health
- b) CIH practitioner
- c) Clinical provider
- d) Management or leadership

# Poll Question 2

*Which of the following are key components of Whole Health? Check all that apply.*

- a) Complementary Integrative Health services
- b) Diagnosing and treating diseases
- c) Personal health goal setting and planning
- d) Providing access to specialty care services
- e) Exploration of Veterans Mission Aspiration and Purpose
- f) Clinical care aligned with what matters most to the Veterans

# Agenda

- Background
- Evaluation Components
  - Implementation of the Whole Health System of Care (WHS)
  - Utilization of the WHS
  - Impact on Veterans
    - Opioid use
    - Patient-reported outcomes
  - Impact on Employees

# Atul Gawande

“We’ve been wrong about what our job is in medicine. We think our job is to ensure health and survival. *But really it is larger than that. It is to enable well-being. And well-being is about the reasons one wishes to be alive.* Those reasons matter not just at the end of life, or when disability comes, but all along the way.”

# Background

- Comprehensive Addictions and Recovery Act (CARA)
  - mandates VHA implement alternative approaches to pain management to decrease the use of opioids
  - requires VHA to conduct research into effectiveness of such approaches
- The implementation of the Whole Health System (WHS) to address pain is VHA's response to CARA.



# Background

- Each VISN has identified and funded a Flagship site to implement the Whole Health System of Care (WHS).
- EPCC was funded by QUERI and Office of Patient-Centered Care & Cultural Transformation (OPCC&CT) to conduct a full-scale program evaluation to understand the effect of the WHS in each of the 18 Flagship sites.
- The primary product from this project was a report to Congress on the impact of the WHS.

# 18 Flagship Sites

VISN	SITE NAME
1	VA Boston Healthcare System
2	VA New Jersey Health Care System
4	Erie VA Medical Center
5	Beckley VA Medical Center
6	Salisbury – W.G. (Bill) Hefner VA Medical Center
7	Atlanta VA Health Care System
8	Tampa – James A. Haley Veterans' Hospital
9	Tennessee Valley Healthcare System
10	Saginaw – Aleda E. Lutz VA Medical Center
12	Tomah VA Medical Center
15	VA St. Louis Health Care System
16	Central Arkansas Veterans Healthcare System
17	San Antonio – South Texas Veterans Health Care System (STVHCS)
19	VA Salt Lake City Health Care System
20	VA Portland Health Care System
21	VA Palo Alto Health Care System
22	Tucson – Southern Arizona VA Health Care System
23	Omaha/NWI – VA Nebraska-Western Iowa Health Care System

# What is Whole Health?

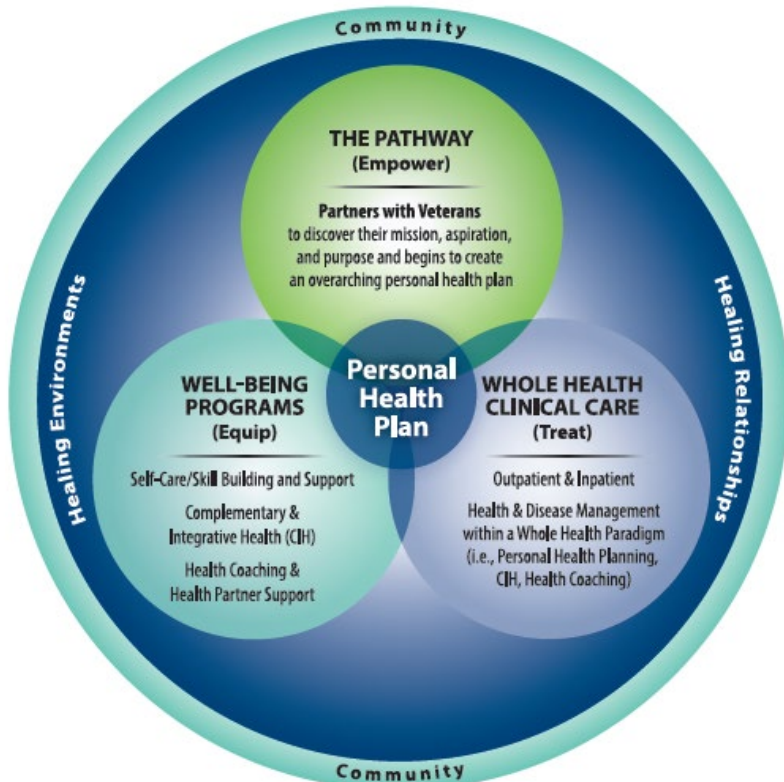
## ***Whole Health***

is an approach  
to health care that  
**empowers** and **equips**  
people to take charge  
of their health and well-being,  
and live their life to the fullest.

# Whole Health System of Care (WHS)

Find it Fix it Healthcare  
What is the matter with you

What matters to you



## The Pathway

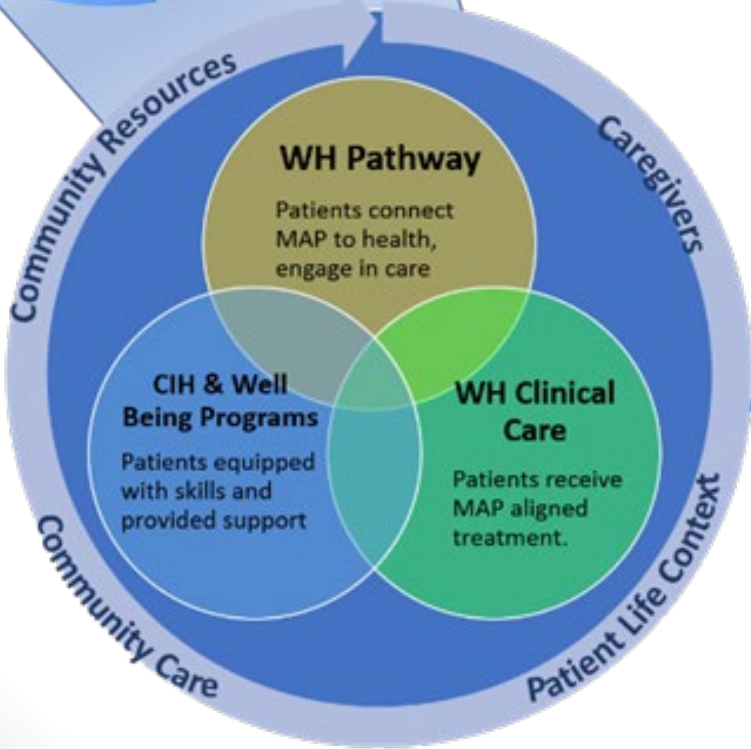
- Introduces Veterans to concepts of WH and facilitates identification of personal health goals and a personal health plan, through WH Facilitated Groups or one-on-one peer interaction.

## Well-Being Programs

- Includes Complementary and Integrative Care (CIH) such as yoga, and tai chi groups, health coaching, and other self-care/skill building groups.

## Whole Health Clinical Care

- Use of a WH paradigm for providing care in both traditional and CIH settings.



- Organizational Outcomes**
- ↑ System-level Value of WH Care Delivery
  - ↑ Allocation of WH Resources
  - ↑ Alignment of System Level Incentives
- Practice Outcomes**
- ↑ Use of WH Tools to Guide Care
  - ↑ Use of WH in Patient Facing Messaging
  - ↑ Health Care Teams' WH Integration
  - ↑ Belief in WH Care Delivery

- Employee Outcomes**
- ↑ Employee Health and Wellbeing
  - ↑ Employee Satisfaction
  - ↓ Burnout

- Patient Outcomes**
- ↑ Use of personal health plans
  - ↑ Patients engagement aligned with Personal Health Goals
  - Δ Changes in utilization
  - ↑ Patient Satisfaction
  - ↑ Health and well-being, functional and clinical outcomes

# Evaluation

- **Implementation of the Whole Health System of Care**
  - Utilization of the WHS
- Impact on Veterans
  - Opioid use
  - Patient-reported outcomes
- Impact on Employees

# Implementation Study - Aims

Justeen Hyde, PhD – Lead Investigator

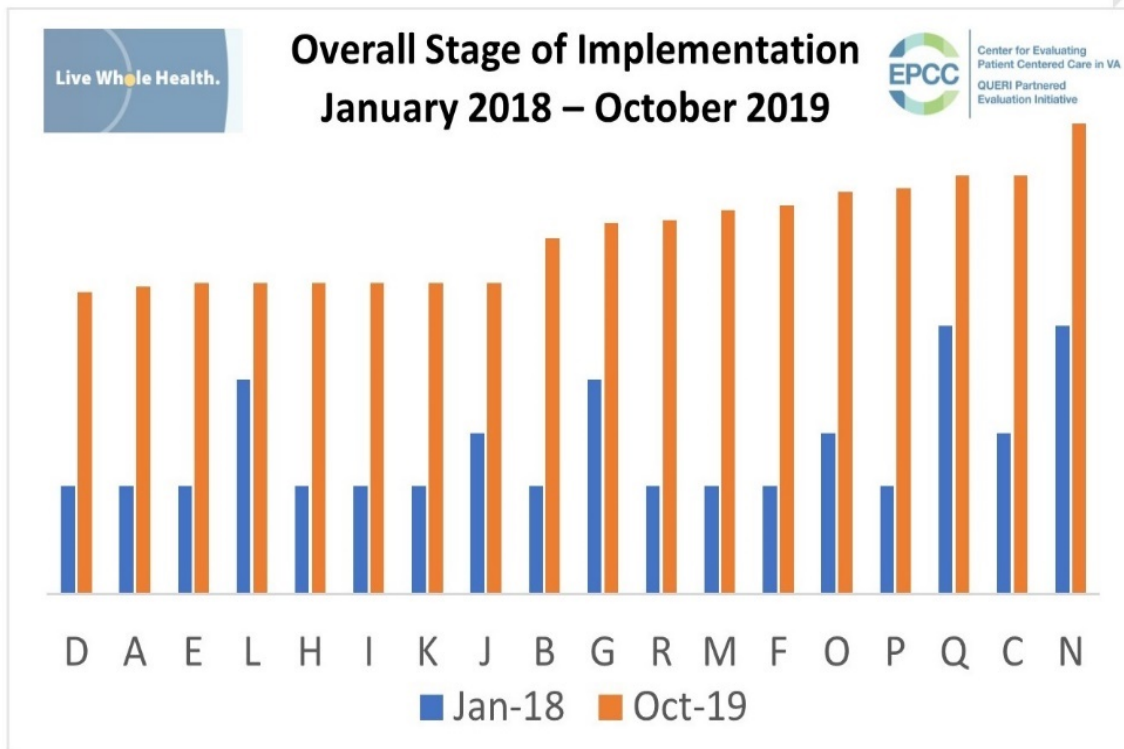
- Track implementation progress at 18 Flagship sites
- Identify barriers and facilitators to implementation of WH components

# Implementation Methods

- Used a Rapid Assessment, Response and Evaluation (RARE) approach to assess stage of implementation at multiple time points for each site
  - Quantitative implementation data via online tracking tool
  - Follow-up qualitative interview with key Whole Health leaders
  - Whole Health training data and service utilization data
  - Direct observations
- Assessed stage of implementation quarterly
  - Using a rubric based on OPCC&CT guidance and includes criteria and milestones for each of the five stages of change that we expect to see in the 3-year Implementation phase

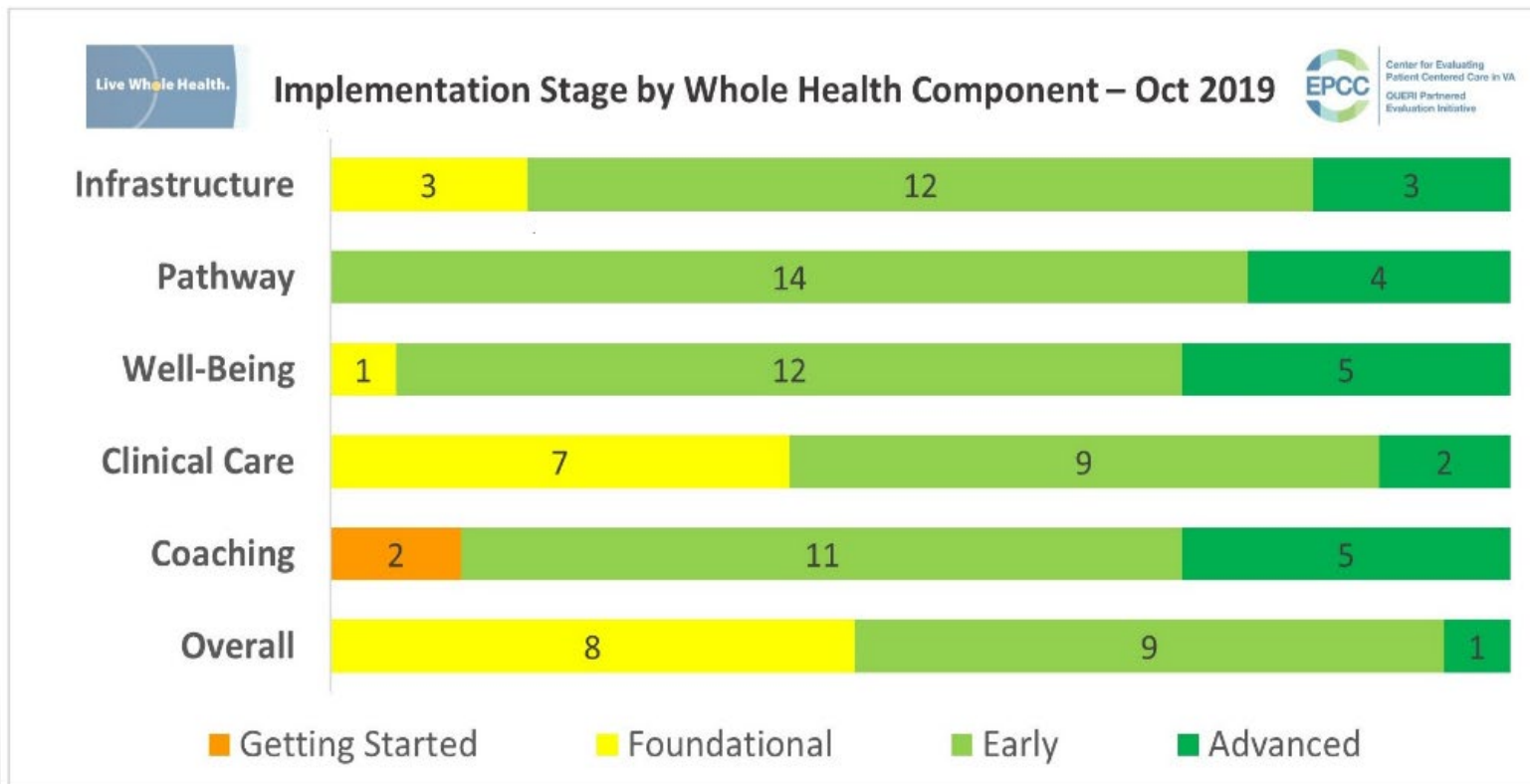


# Findings



# Findings

- Variation in implementation of different components
  - CIH and well-being services were furthest along
  - WH Clinical Care implementation was slowest to progress



# Findings

<b>Key Facilitators</b>	<b>Key Barriers</b>
<ul style="list-style-type: none"><li>• Strong leadership, including tangible support for WH, which is viewed as a strategy for meeting VA priorities</li><li>• An organizational culture in which being a learning organization is valued</li></ul>	<ul style="list-style-type: none"><li>• Infrastructure constraints</li><li>• Perceptions of WH as a program rather than an approach</li><li>• Misalignment of clinical and facility level incentives</li></ul>

# Evaluation

- Implementation of the Whole Health System of Care (WHS)
- **Utilization of the WHS**
- Impact on Veterans
  - Opioid use
  - Patient-reported outcomes
- Impact on Employees

# Utilization Study - Aims

Steven Zeliadt, PhD – Lead Investigator

- Assess changes in utilization of WHS services over time

# Utilization Methods

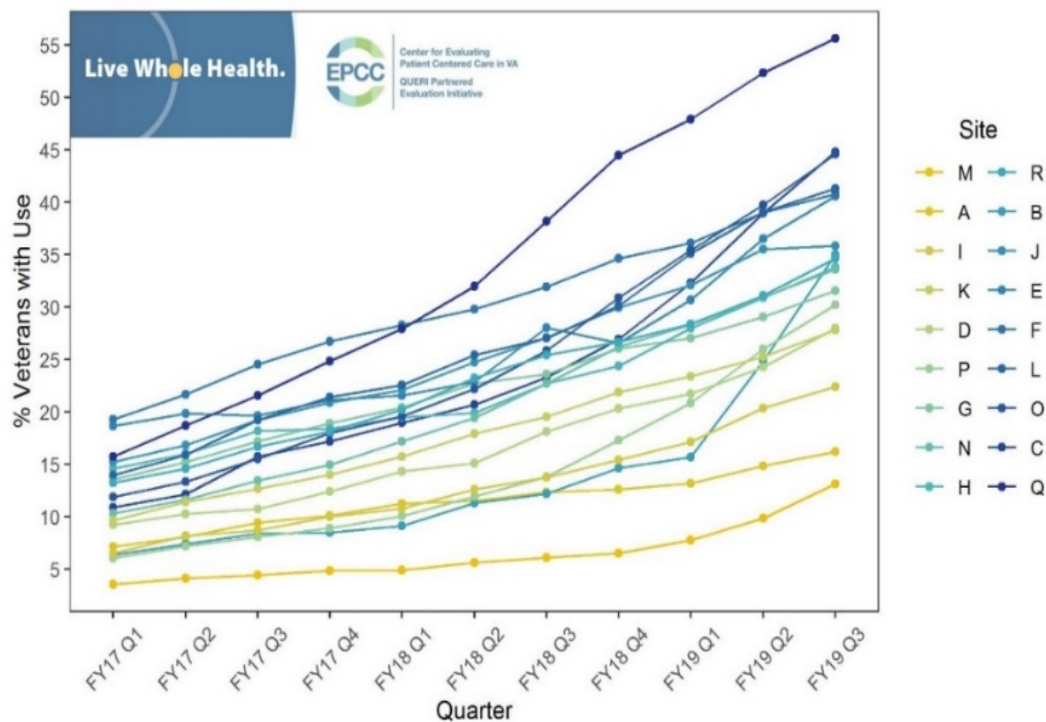
- Identified WHS service use among Veterans with:
  - Chronic musculoskeletal pain with *moderate or severe intensity* levels of pain (29% of all VA users)
  - Mental health conditions - *anxiety, depression or PTSD* (42% of all VA users)
  - Chronic conditions where self-care plays an important role - such as *obesity, cardiovascular disease, and COPD* (56% of all VA users)
- Identify VA-delivered services and community-delivered services:
  - Codes in electronic medical record
    - CPT codes, note titles, location names and specialized administrative codes created to capture WHS services
  - Identified all Veterans who used VA healthcare services in each quarter; among these we identified any current or prior use of WHS services going back to 10/1/2015.

# WHS Services

<b>Whole Health Service Category</b>	<b>Services included</b>
<b>Complementary and Integrative Health</b>	Chiropractic care Massage Whole body acupuncture & Battlefield acupuncture Yoga Tai Chi Meditation Biofeedback Guided Imagery Hypnosis
<b>Core Whole Health</b>	Personal Health Planning Peer-led Whole Health Groups Whole Health Pathway services Whole Health Coaching Whole Health Educational Groups

# Findings

- 31% of Veterans with chronic pain engaged in some WH services in FY19 Q3 (up to 55% at 1 flagship).
- With continued investment in the WHS, we would expect 44% of Veterans with chronic pain to engage with WH services by the end of 2020.



Changes in WHS Utilization Among Veterans with Chronic Pain

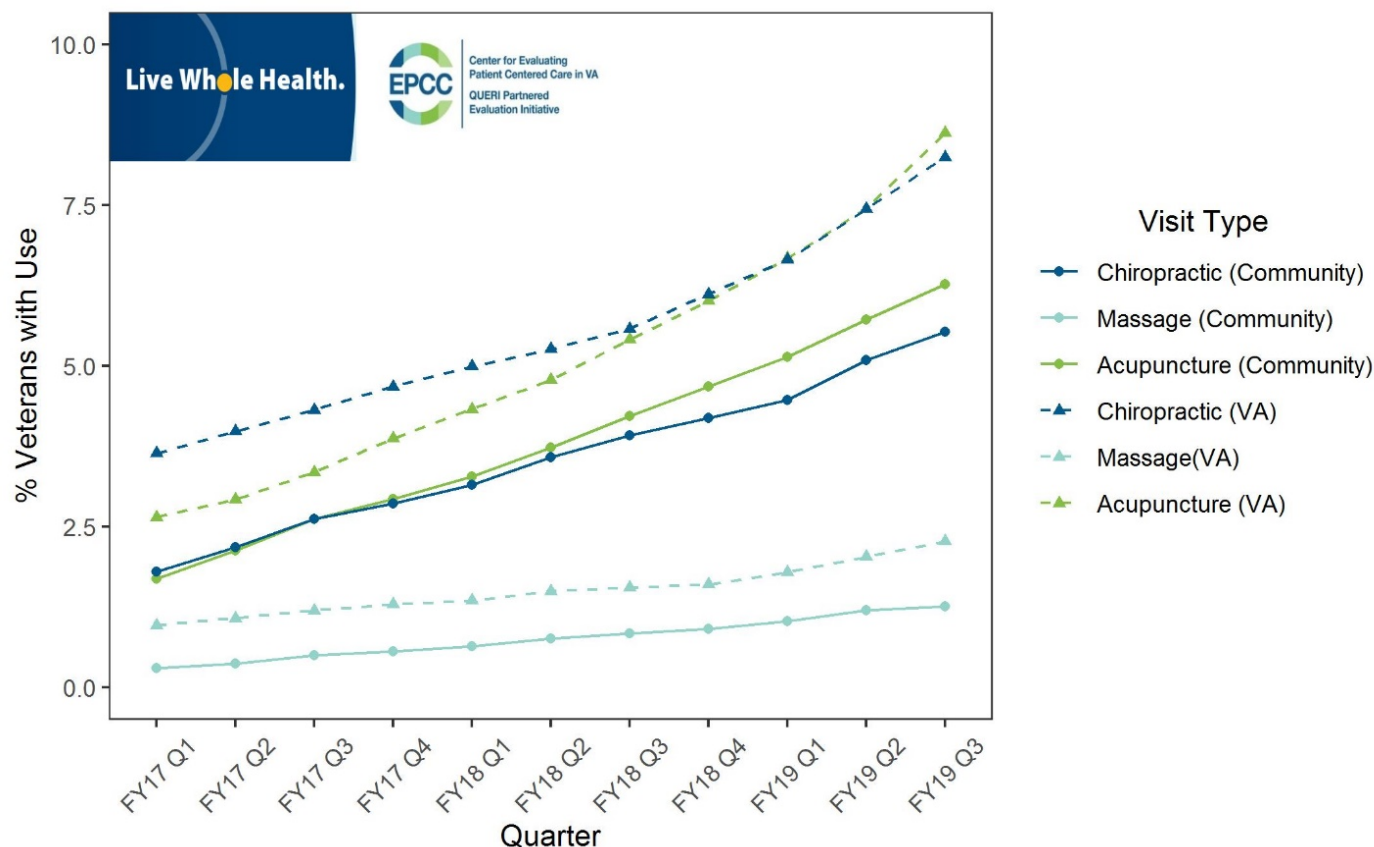


# Findings

- Increases in utilization since 2017:
  - Veterans with chronic pain: 193%
  - Veterans with MH diagnoses: 211%
  - Veterans with chronic conditions: 272%
- 26% of Veterans with chronic pain used CIH therapies
  - Includes services delivered in the community
  - Increasingly being delivered within VA

# Findings

- Both VA-provided and community-provided care increased in the 18 Flagship pilot sites
  - Majority of Veterans receiving care from VA providers.



This figure highlights an increase in use of both community care and VA services for these three WHS services among Veterans with chronic pain.

# Evaluation

- Implementation of the Whole Health System of Care (WHS)
- Utilization of the WHS
- **Impact on Veterans**
  - Opioid use
  - Patient-reported outcomes
- Impact on Employees

# Patient Outcomes - Aims

Steven Zeliadt, PhD

Barbara Bokhour, PhD – Lead Investigators

- Assess changes in opioid use over time
- Assess patient-reported outcomes of WHS use over time
  - Pain
  - Other PROs

# Impact on Veterans – Methods

- Categorize Veterans based on utilization of WH services delivered in VA and in community

WHS User Category	Use Criteria
Comprehensive WHS Use	$\geq 8$ total WH touches ( $\geq 2$ Core Whole Health touches + $\geq 2$ CIH touches)
CORE Whole Health Intensive Use	$\geq 4$ Core WH, any CIH
CIH Intensive Use	$\geq 4$ CIH, any Core WH
Any 2+ WHS use	$\geq 2$ of any WHS service or self-reported use
No WHS Use	All Veterans with 0 or 1 WHS visits

\* Note that services included in CORE WH and CIH categories are the same as those that were used for the utilization evaluation.

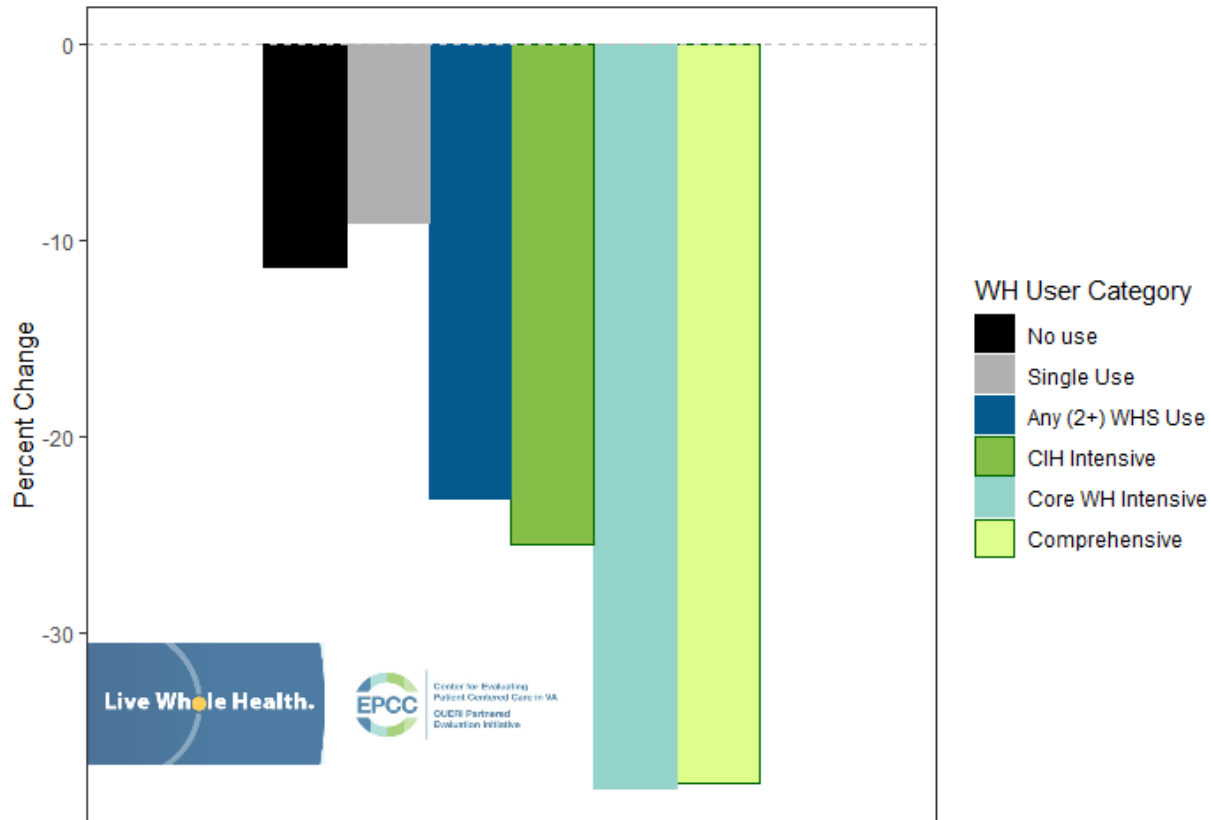
# Impact on Veterans-Opioid Use

## Methods

- *Veteran User Cohort* – regular VA healthcare users in FY18 and FY19 who had not previously used WHS services
- Opioid prescription data for the 2 quarters prior to start of use of WHS services (October 2017 - March 2018) and for a follow-up period (October 2018 - March 2019)
- Converted opioid prescription data to morphine equivalent dose and an average was calculated each quarter
- Changes in average dose of opioids use were calculated from the 6-month period before Veterans started using the WHS and the 6-month period after using WHS services

# Findings - Opioid Use

- Positive impact of WH on reducing opioid use among Veterans.
  - Threefold reduction in opioid use among Veterans with chronic pain who used WHS services compared to those who did not.
  - Opioid use among comprehensive WH users decreased 38% compared with an 11% decrease among those with no WH use.



Change in opioid use by WH user category for Veterans with chronic pain (n=114357)

# Impact on Veterans: Patient Reported Outcomes Methods

Veterans Health and Life Survey (Patient Reported Outcomes)

Goal of the WHS	Construct Measured
Focus on what matters most	Patient-centered communication; Patient-provider relationship
Mission Aspiration and Purpose (MAP)	Meaning and purpose in life
Skill building and support, empowerment	Patient engagement
Changes in health behavior to achieve personal health goals	Patient based goal attainment
Improved health and well-being	Perceptions of global health; pain; general well-being



# Impact on Veterans: PRO's

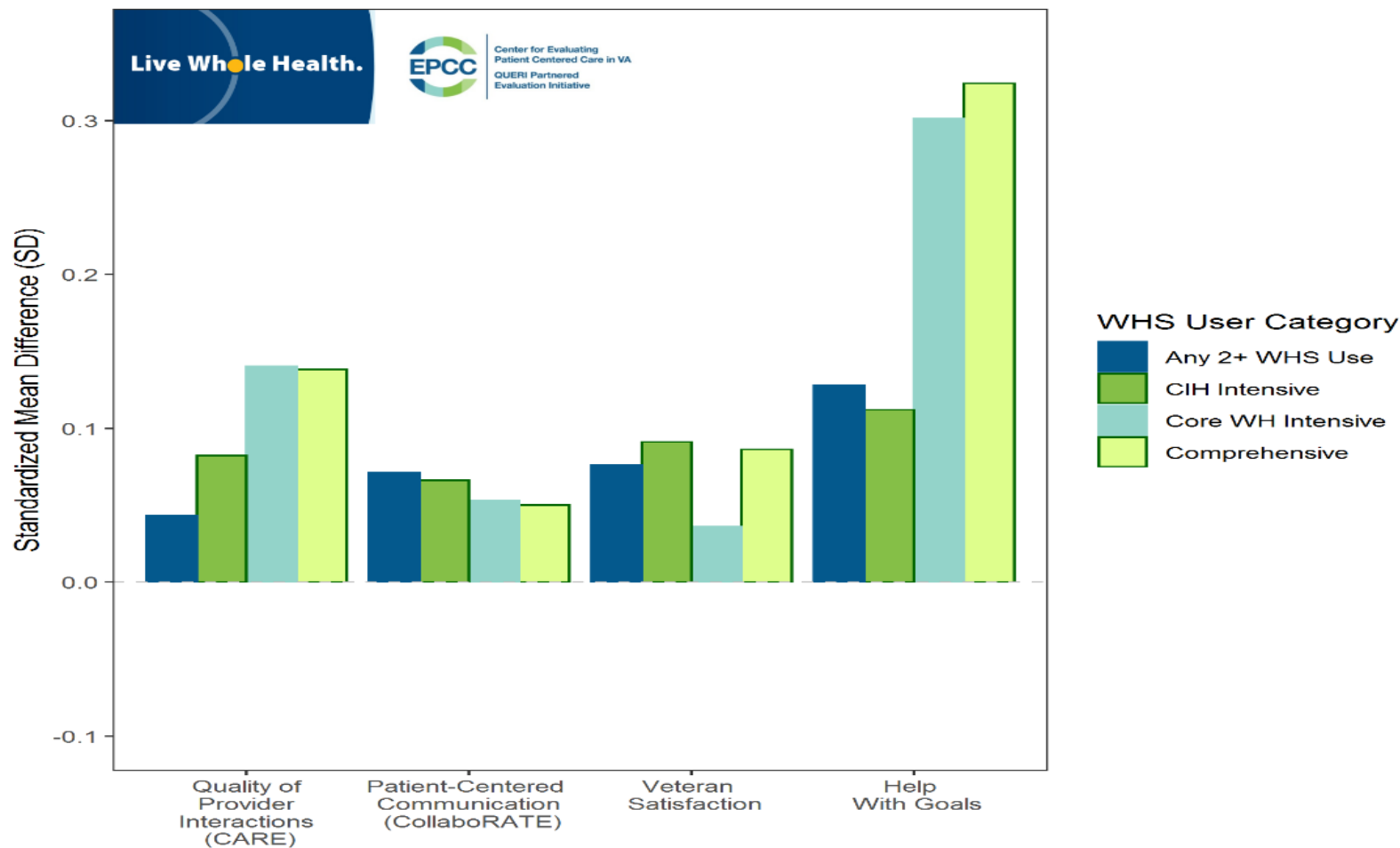
## Methods

- Veteran's Health and Life Survey to a cohort of patients with chronic pain
- Changes in outcomes from baseline to 6-months and compared changes between each of the WHS use groups and the no WHS use group (n=3,266)
- Standardized all measures and reported *effect size differences across the user groups* based on standardized mean differences
- Adjusted for self-reported pain intensity on the baseline survey and demographic characteristics including age, gender, race/ethnicity, and education

# Findings

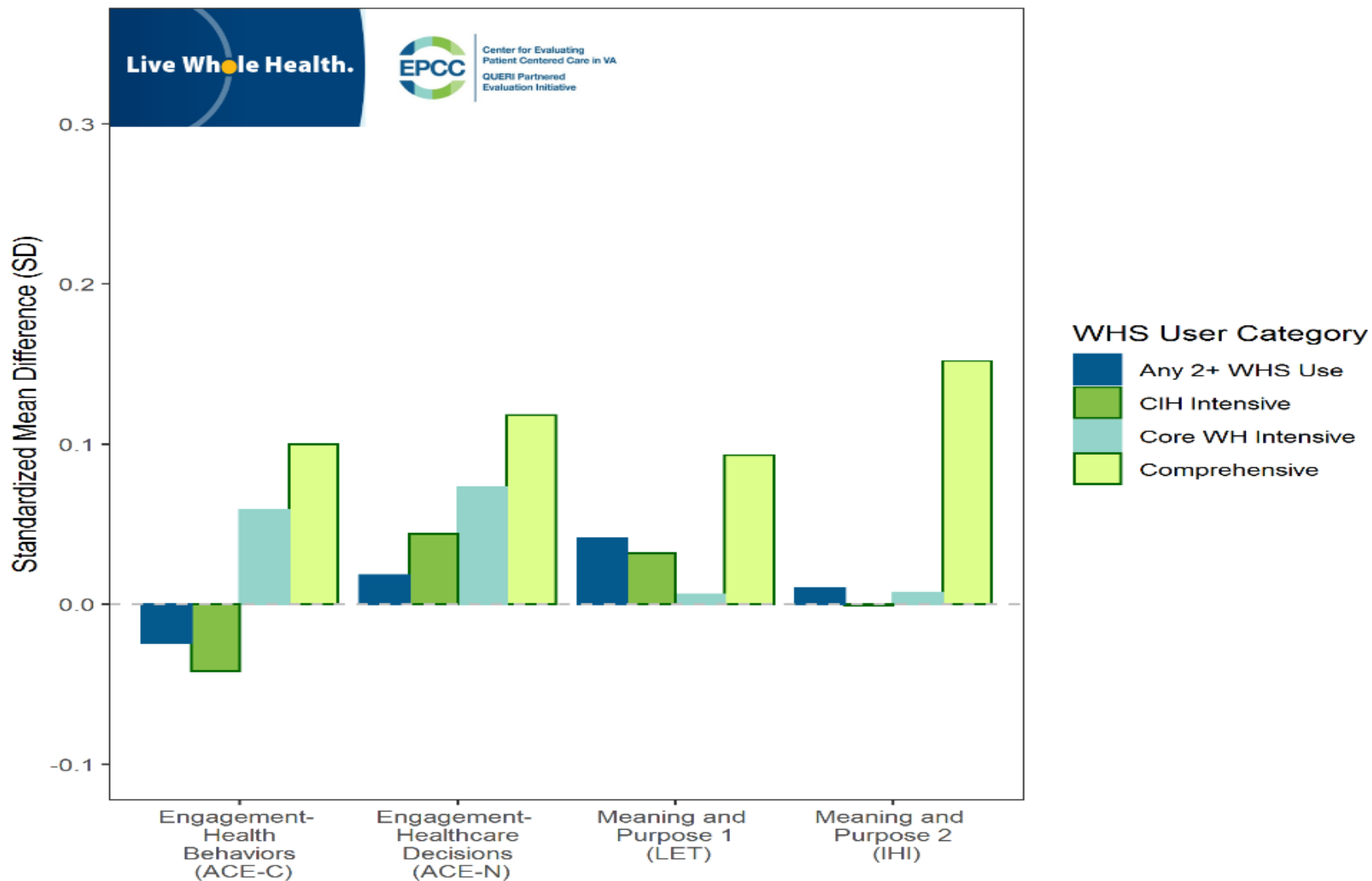
- Veterans who used WHS services demonstrate trends towards improvements in patient-reported health and well-being outcomes.
- Compared to Veterans who did not use WH services, Veterans who used WH services reported:
  - Greater improvements in perceptions of the care received as being more patient-centered.
  - Greater improvements in engagement in healthcare and self-care.
  - Greater improvements in engagement in life indicating improvements in mission, aspiration and purpose.
  - Greater improvements in perceived stress indicating improvements in overall well-being.

# Findings - Communication



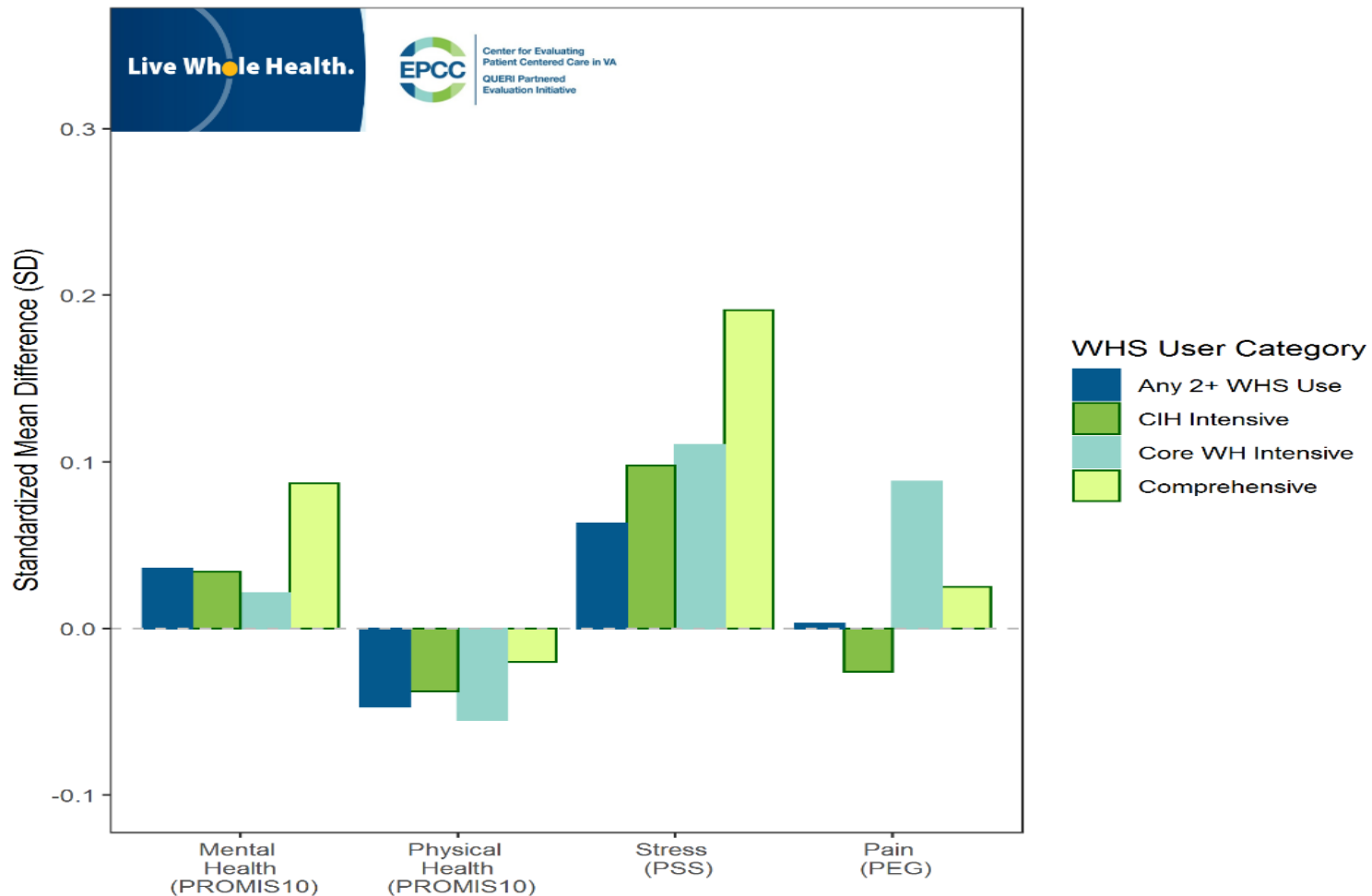
Association between changes in perceptions of VA Care and levels of WHS service use compared to no use group (n=3266).

# Findings – Engagement and MAP



Association between changes in Veteran engagement and meaning and purpose and WHS service use compared to no use group (n=3266).

# Findings – Global Health, Stress, Pain



**Association between changes in Veteran well-being and pain, and WHS service use compared to no use group (n=3266).** Note that any negative SD represents a relative change compared to the non-user group. All measures did improve across all groups.

# Evaluation

- Implementation of the Whole Health System of Care (WHS)
- Utilization of the WHS
- Impact on Veterans
  - Opioid use
  - Patient-reported outcomes
  - Pharmacy costs
- **Impact on Employees**

# Impact on Employees - Aims

- Examine the relationship between clinician involvement in the WHS, healthcare workforce measures and other hospital performance metrics.

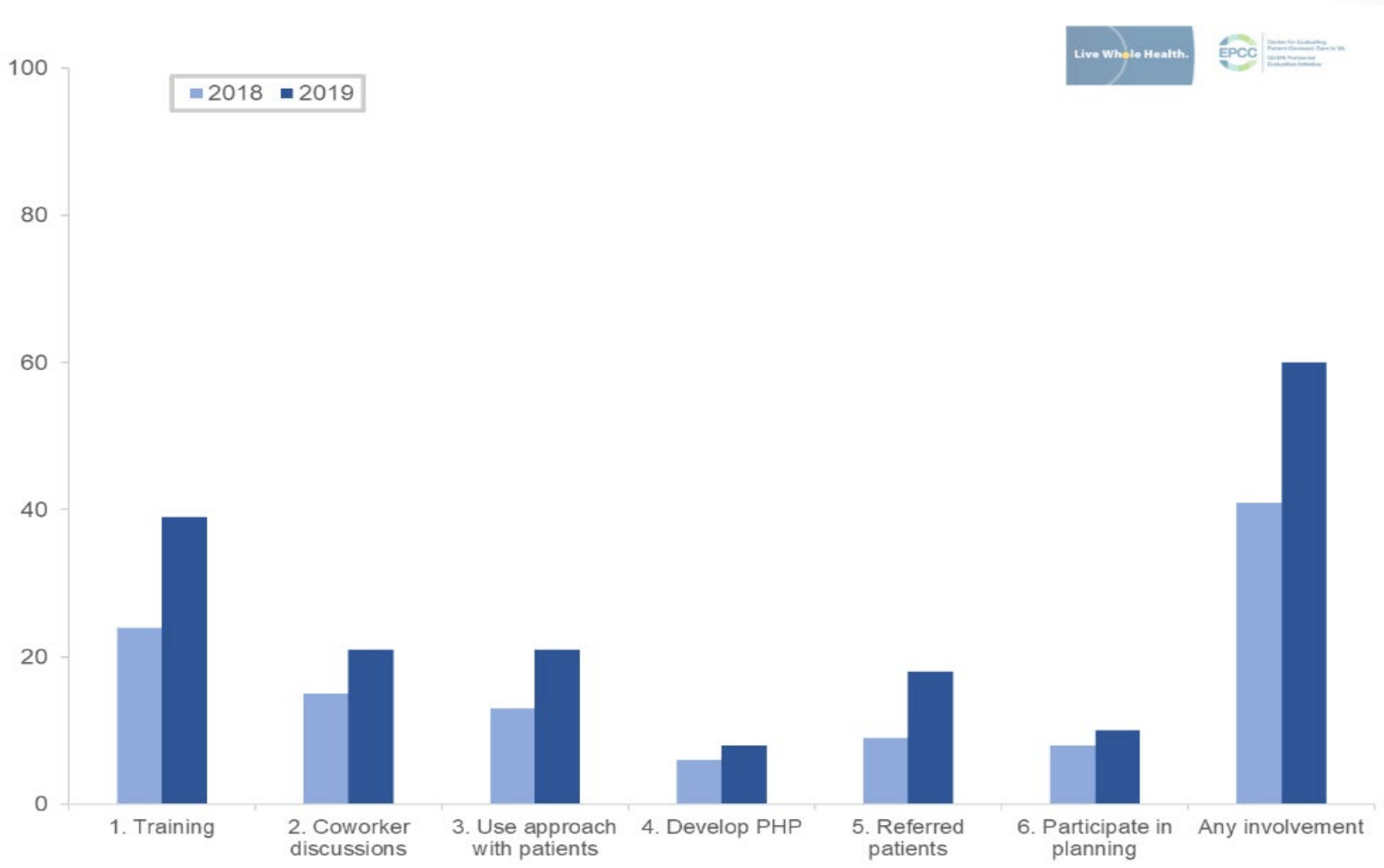
# Impact on Employees - Methods

- Added WH question to 2018 AES (43 sites) and 2019 AES (all sites)
  - Asked about respondents' involvement in WH
  - Eligible respondents included physicians, nurses, and other clinical professionals who responded to the following question (N=42,123)
  - Created involvement index using MCA (0-1)
  - Examined facility-level differences for each measure and variation by service
  - Examined relation between WHS involvement with employee workplace perceptions and facility performance



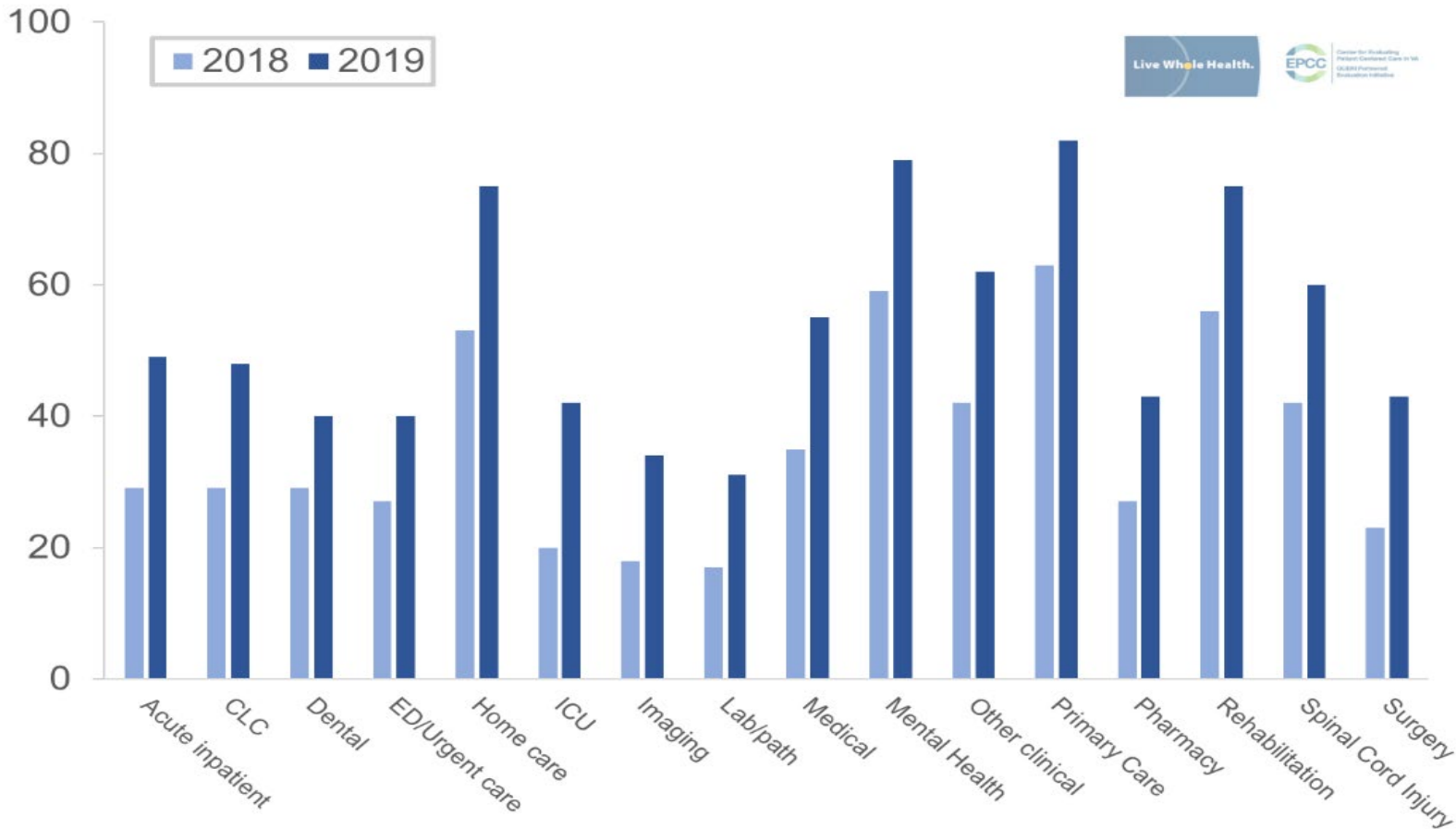
# Findings – Employee Engagement

- Employee involvement in provision of WH expanded from 2018-2019 in all sites.



# Findings

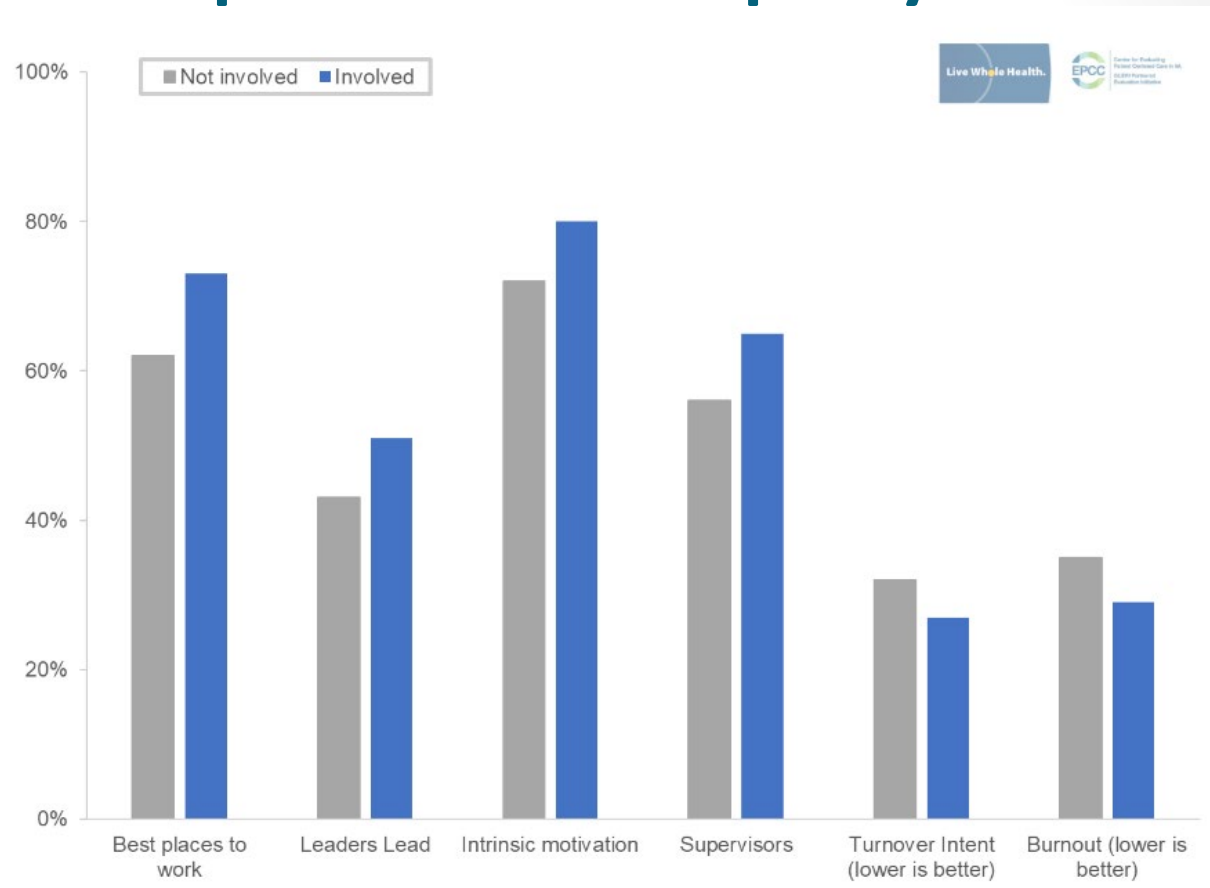
- Variation exists in different clinical areas, with the greatest uptake in primary care, mental health, rehabilitation, and home/community care.



# Findings - Impact on Employees

Employees who reported involvement with WH also reported:

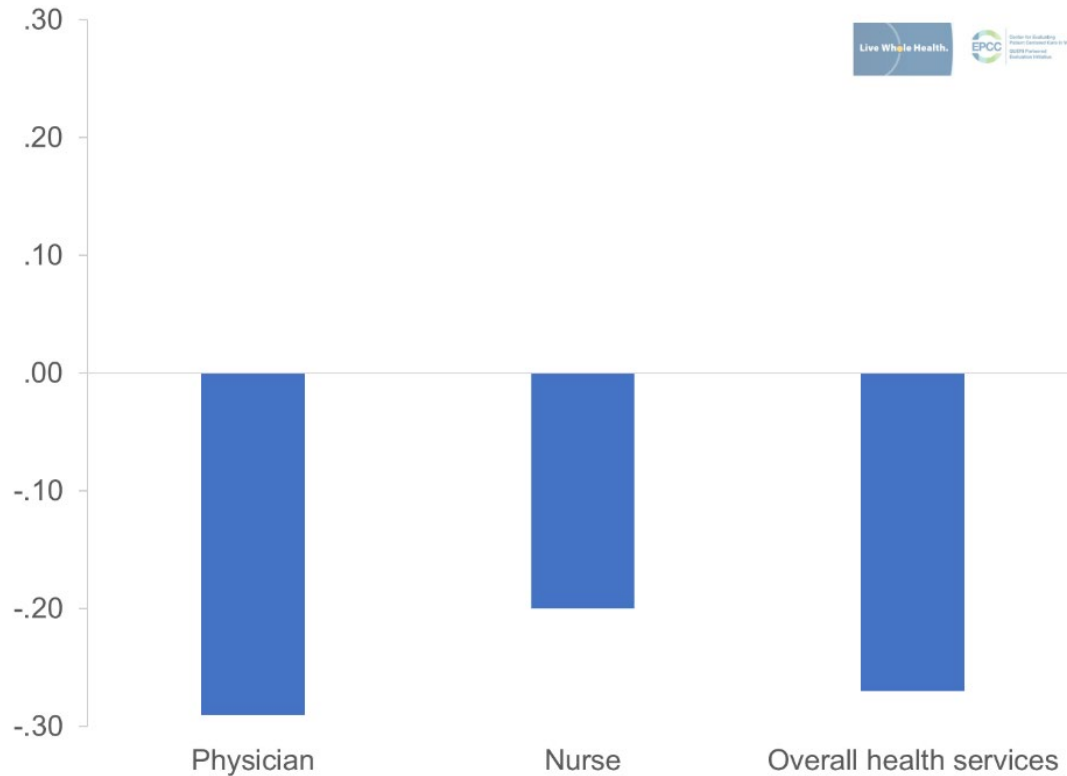
- Their facility as a 'best place to work'
- Lower voluntary turnover
- Lower burnout
- Greater motivation



**Employee Engagement Index, Best Places to Work, Burnout, and Turnover by Individual Involvement with Any WHS Activity in Flagship Sites. WH involvement was associated with important employee outcomes.**

# Impact on Employees

**Clinical staff who were more involved with WH were also less likely to resign.**

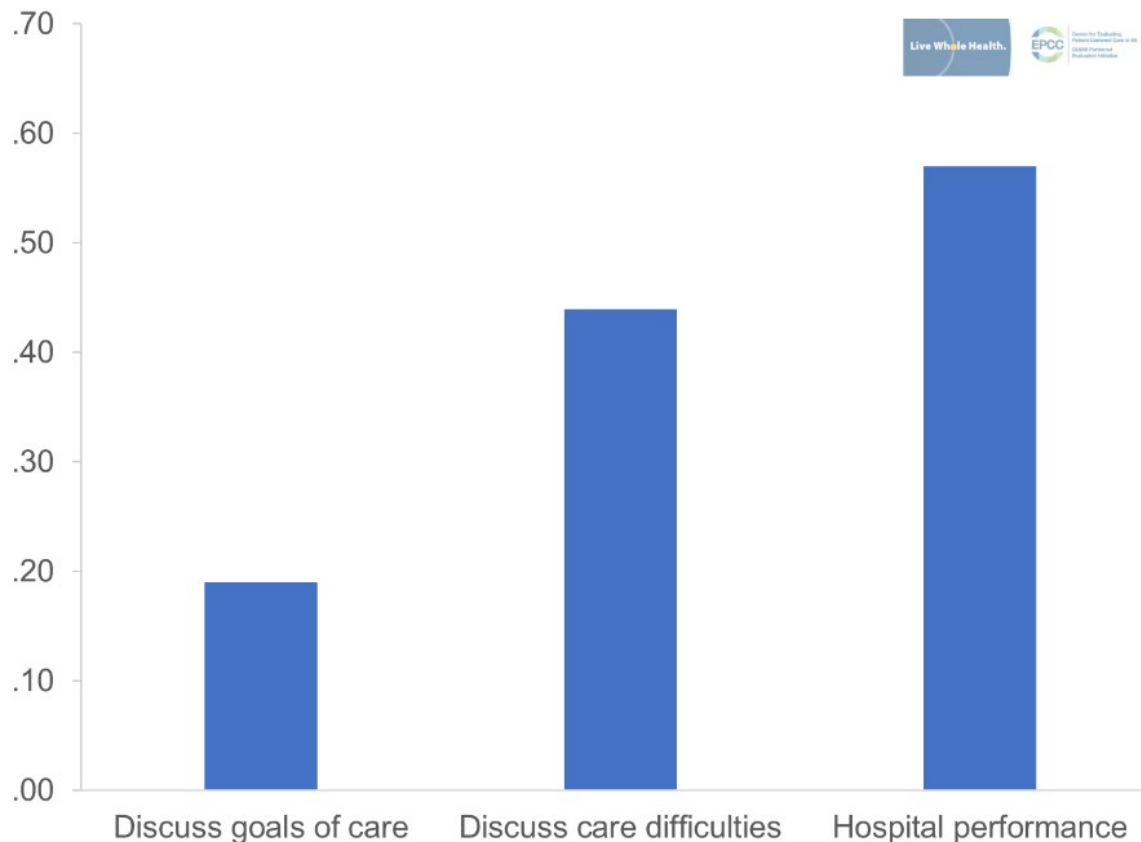


**Relationship between WH Involvement and resignation rates by occupation. Spearman rank-order correlations. Values of 0 suggest no association; while 1 indicate perfect association.**

# Findings – Employee Engagement and Hospital Metrics

- Facilities with higher employee involvement in WH had higher ratings on hospital performance, as measured by Strategic Analytics for Improvement and Learning (SAIL).
- Facilities with higher employee involvement in WH had higher ratings from Veterans on receiving patient-centered care as measured in the Survey of Healthcare Experiences of Patients (SHEP).

# Findings – Employee Engagement and SHEP



**Relationship between WH Involvement and Patient-Centered Care and Overall Hospital Performance.**

*Greater WH involvement was associated with greater patient perceptions of care (SHEP) and SAIL metrics for the 18 flagship sites. Spearman rank-order correlations. Values of 0 suggest no association while 1 indicate perfect association.*

# Full report available

- [https://www.va.gov/WHOLEHEALTH/docs/EPCCWholeHealthSystemofCareEvaluation-2020-02-18FINAL\\_508.pdf](https://www.va.gov/WHOLEHEALTH/docs/EPCCWholeHealthSystemofCareEvaluation-2020-02-18FINAL_508.pdf)
- Article on EPCC evaluation posted online in June
- <https://www.va.gov/WHOLEHEALTH/features/StudyShowsTheSuccessOfWholeHealth.asp>

VA » Health Care » Whole Health » Study Shows the Success of Whole Health

## Whole Health

- ▼ Whole Health
  - Home
  - ▶ Get Involved
  - ▼ Veteran Resources
    - Whole Health Basics
    - Education Handouts
    - Feature Stories
    - Mobile Apps and Online Tools
    - Peer Facilitator Materials
    - Well-Being Programs
    - Whole Health Videos
  - ▶ Professional Resources
  - ▶ Circle of Health
    - Build Your Personal Health Plan
    - ▶ More Health Care

### Study Shows the Success of Whole Health



VA's Whole Health approach lets Veterans make use of clinical and complementary care to help them live healthier lives.

# Questions?

- Have more questions? Feel free to contact us!  
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