ENHANCING PRIMARY CARE FOR HIGH-NEED PATIENTS: LESSONS LEARNED FROM PACT INTENSIVE MANAGEMENT (PIM)

Evelyn Chang, MD, MSHS and
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on behalf of the PIM
Demonstration Group

VA Cyberseminar
October 18, 2017

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OVERVIEW

Rationale for Office of Primary Care's PACT Intensive Management (PIM) Demonstration Program

Description of 5 PIM Programs

12-Month Outcomes

- Patient Experience
- PACT Experience
- Cost & Utilization

Lessons Learned

Next Steps

POLL QUESTION: WHAT IS YOUR ROLE IN VA? (SELECT ALL THAT APPLY)

A. PACT staff (provider, nurse, clerk)
B. Non-PACT clinical staff
C. Administrator, clinic manager
D. Researcher
E. Other

CLINICAL VIGNETTE FROM PIM TEAM

Mr. A is a 65 year-old Vietnam Veteran with history of hypertension, chronic lower back pain, shoulder pain, and polysubstance abuse, who lived with family.

He enrolled into PIM during a hospitalization with a new diagnosis of multiple myeloma. Veteran's goal was to re-gain independent living within 6 months and to "beat cancer." PIM team goals were to assist patient with maintaining sobriety and adherence to medication and Hematology/Oncology treatment plan.

CARE FOR HIGH-NEED PATIENTS IS NATIONAL PRIORITY

VIEWPOINT

VITAL DIRECTIONS FROM THE NATIONAL ACADEMY OF MEDICINE

Tailoring Complex Care Management for High-Need, High-Cost Patients

David Blumenthal, MD
The Commonwealth Fund, New York, New York.

Melinda K. Abrams, MS
The Commonwealth Fund, New York, New York.

The NEW ENGLAND JOURNAL *of* MEDICINE

Perspective

SEPTEMBER 8, 2016

Caring for High-Need, High-Cost Patients — An Urgent Priority

David Blumenthal, M.D., M.P.P., Bruce Chernof, M.D., Terry Fulmer, Ph.D., R.N., John Lumpkin, M.D., M.P.H., and Jeffrey Selberg, M.H.A.

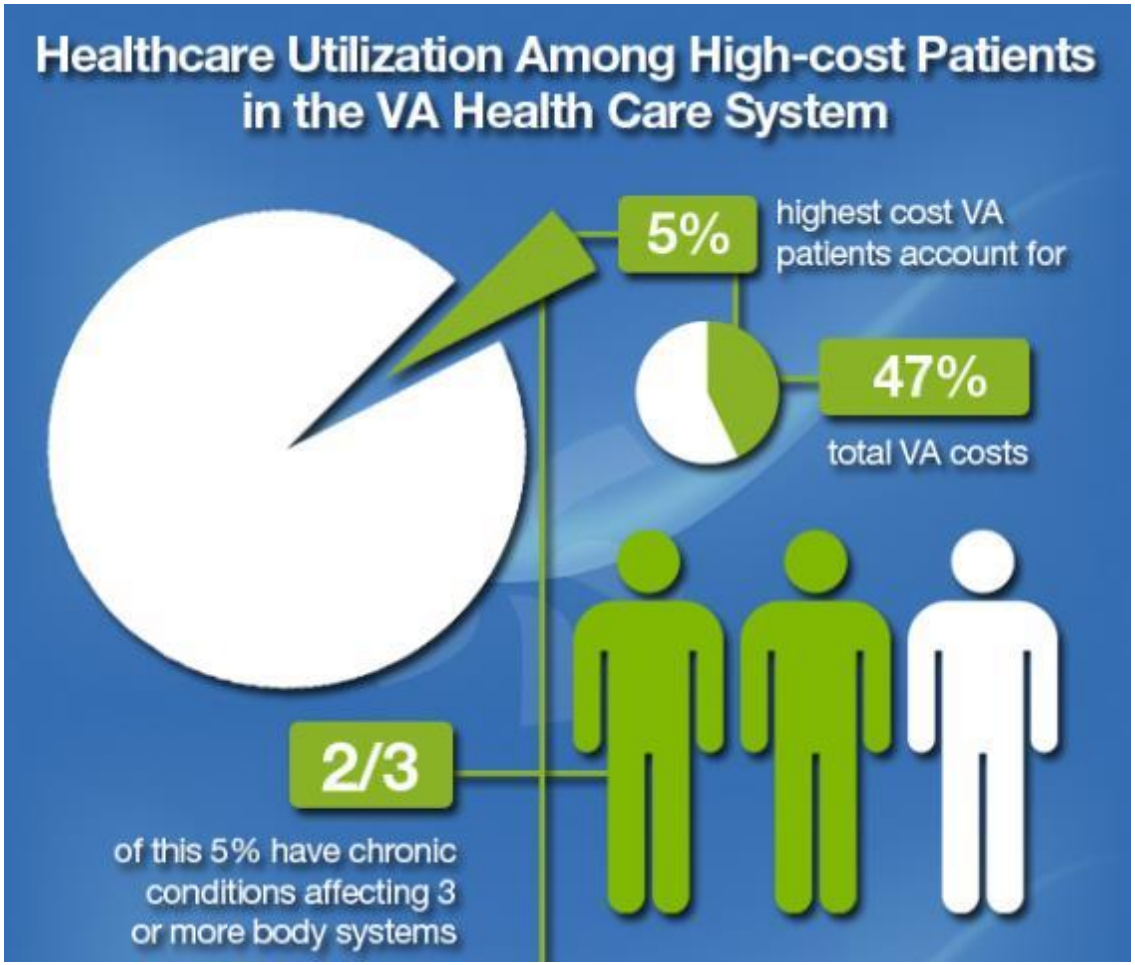
NATIONAL ACADEMY OF MEDICINE

MODELS OF CARE FOR HIGH-NEED PATIENTS

A National Academy of Medicine Workshop

...funded by the Peterson Center on Healthcare

HIGH-COST PATIENTS IN VHA



Source: Zulman DM, *et al.*, *BMJ Open*. 2015

VHA'S 5% HIGHEST-COST PATIENTS

- High rates of hospitalization and ED visits
- Many patients with complex/costly conditions
  - Cancer, heart failure, renal failure
  - 65% with conditions spanning 3+ systems
- Approximately half with MH conditions
- High rates of homelessness (14%)
- Many with inadequate social support (41% married)

Source: Zulman DM, *et al.*, *BMJ Open*. 2015

"HOT SPOTTER" INITIATIVES

- "Hot Spotter" concept popularized by Atul Gawande, 2011, *New Yorker*
- Jeffrey Brenner, MD, pioneered using local data to identify high-cost patients and provide intensive outpatient care to reduce costs and improve quality
  - These patients were generally not connected to primary care
- Other similar interventions followed, but most were not rigorously evaluated

In Camden, New Jersey, 1% of patients account for 1/3 of medical costs. Photograph by Phillip Toledano

WHAT IS KNOWN FROM LITERATURE

Intervention results are mixed.

Some show reductions in hospital admissions, emergency department (ED) visits, costs.

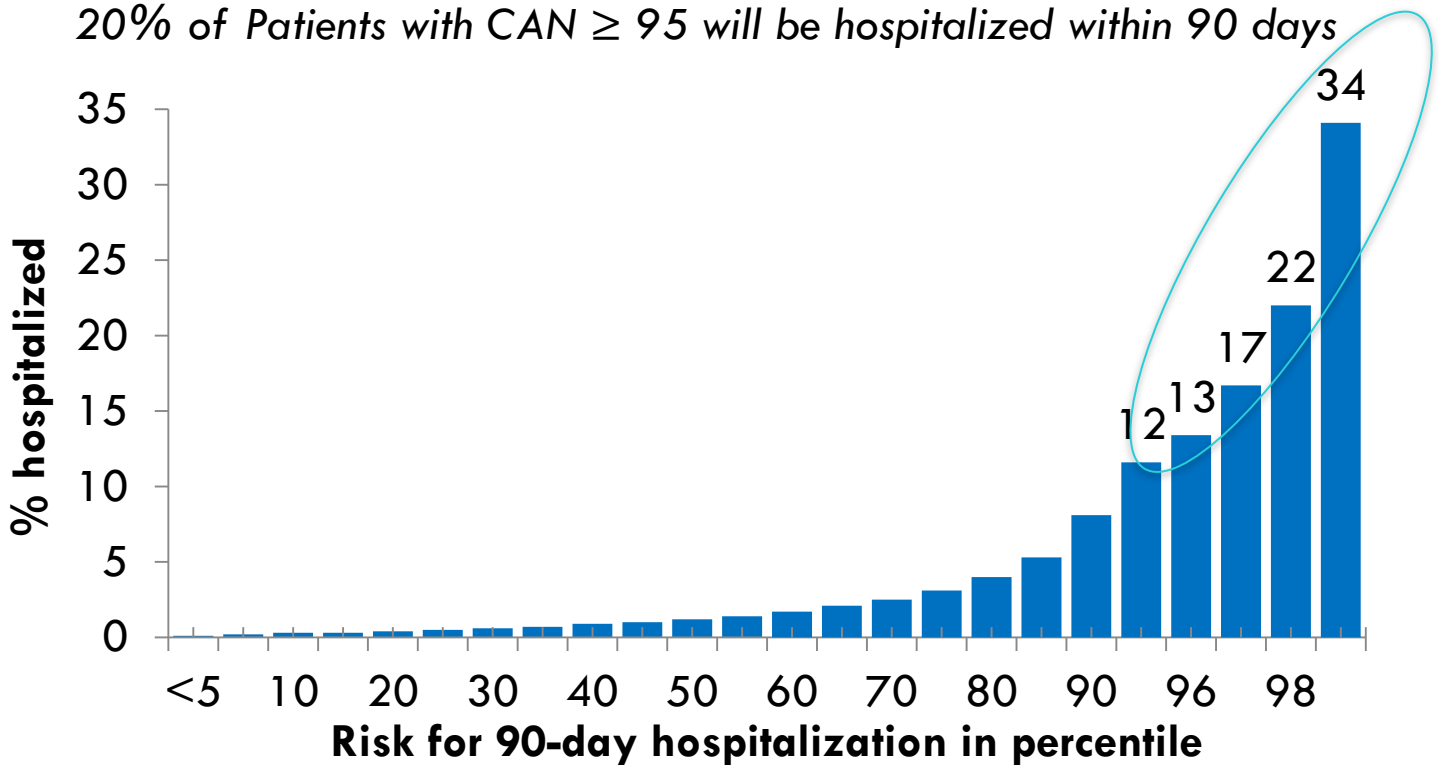
- Patient outcomes may appear to improve without a comparison group

Existing models not necessarily designed to take advantage of medical home and neighborhood resources (i.e., mental health, palliative care, homeless, home-based primary care).

POLL QUESTION: WHAT IS YOUR EXPERIENCE WITH HIGH-RISK PATIENTS? (SELECT ALL THAT APPLY)

A. Direct clinical care for high-risk patients
B. Leadership role in program for high-risk patients
C. Research on high-risk patients
D. Other experience with high-risk patients
E. No experience yet

VHA CAN PREDICT VETERANS' RISK FOR HOSPITALIZATION USING THE CARE ASSESSMENT NEED (CAN) SCORE



From Wang, et al. Med Care. 2013.

VHA PRIMARY CARE SERVICES RATIONALE

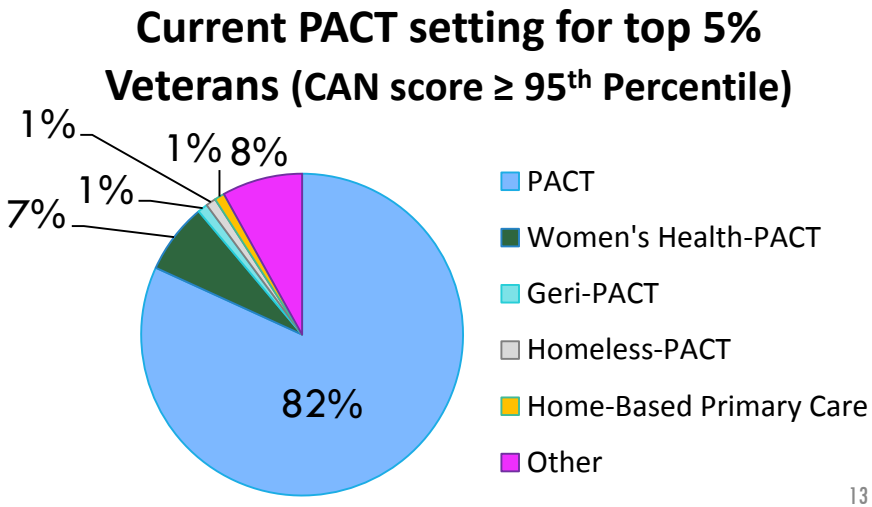
Most high-risk patients are managed in PACTs

Patients at highest risk for hospitalizations ("high-risk") require prompt, frequent, comprehensive coordination.

Even high-performing PACTs struggle with identifying and meeting high-risk patient health needs.

May not be feasible for PACT teams alone.

Need to develop and evaluate approaches to intensive management.



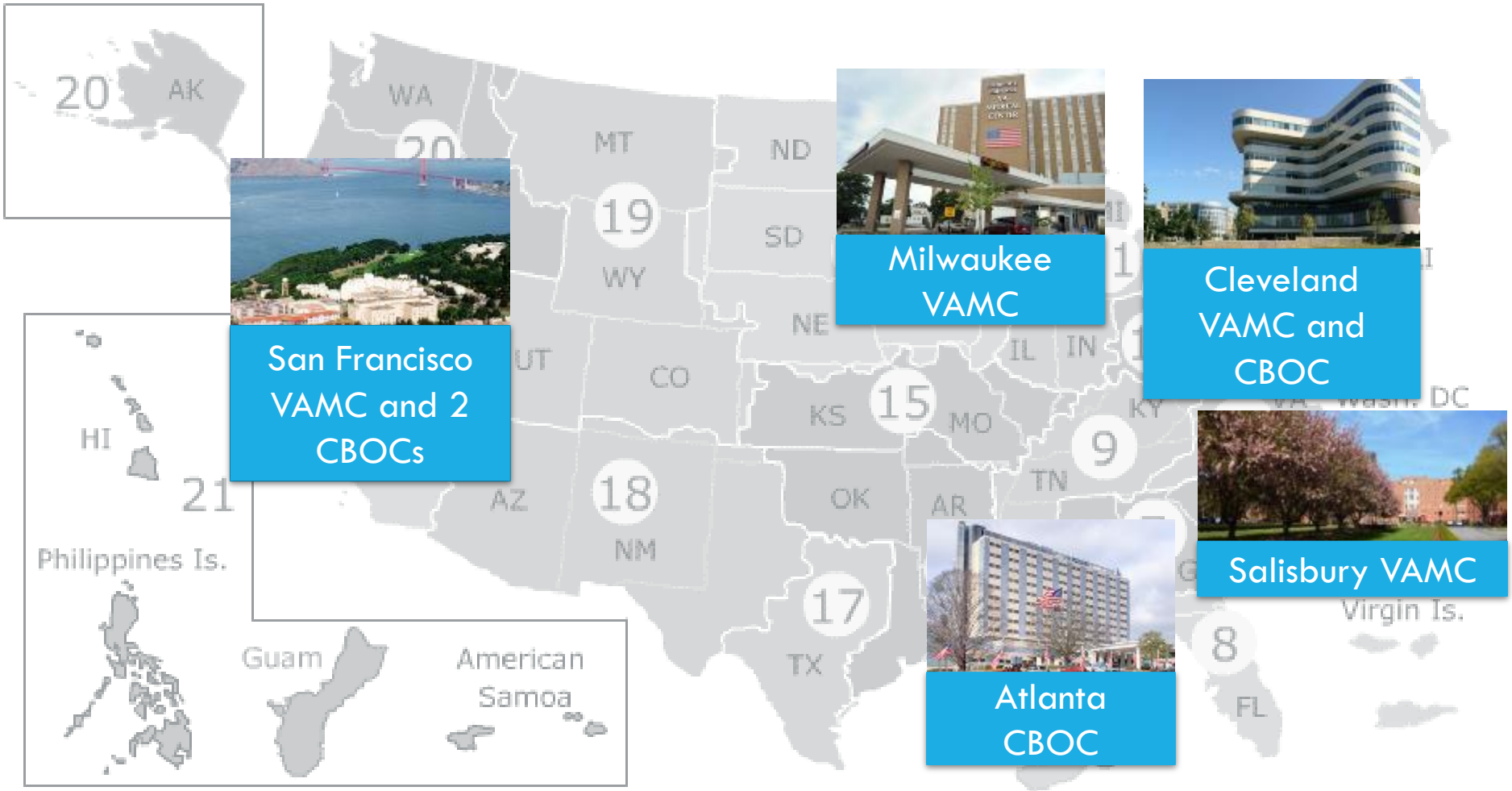
VHA PRIMARY CARE SERVICES GOALS

Improve health care outcomes, functional status, quality of life, Veteran satisfaction among high-risk patients in primary care.

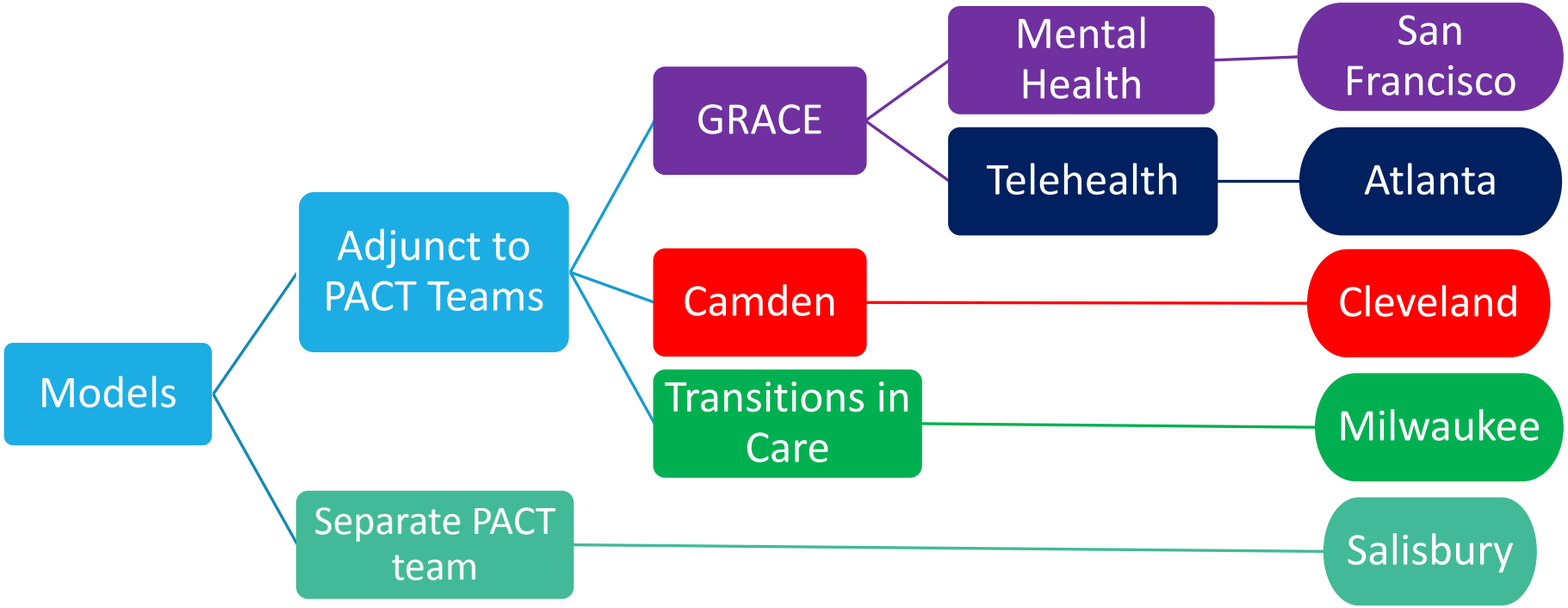
Reduce emergency department and urgent care utilization, hospitalizations and mortality in high-risk patients in primary care.

Improve provider satisfaction.

PACT INTENSIVE MANAGEMENT (PIM) SELECTED DEMONSTRATION SITES - 2013



PACT INTENSIVE MANAGEMENT (PIM) DEMONSTRATION SITE MODELS



WHAT DID PIM TEAMS DO?

Met regularly as an interdisciplinary care team

Screened 20-25 high CAN patients per month, triaged patients, notified PACT providers, assessed, and finally engaged Veterans identified as appropriate

Nontraditional approaches (e.g., "co-attends," inpatient visits)

Performed care coordination activities

- Health coaching
- Communicating/coordinating with other providers
- Arranging transportation for appointments

Assisted with medications (e.g., refills, education, adherence)

At least four sites included:

- Home visits to gain patient's trust and assess environment
- Mental health and/or addiction assessment and support

RANDOMIZED PROGRAM EVALUATION DESIGN

Any result or outcome from PIM would be difficult to interpret without a comparison group.

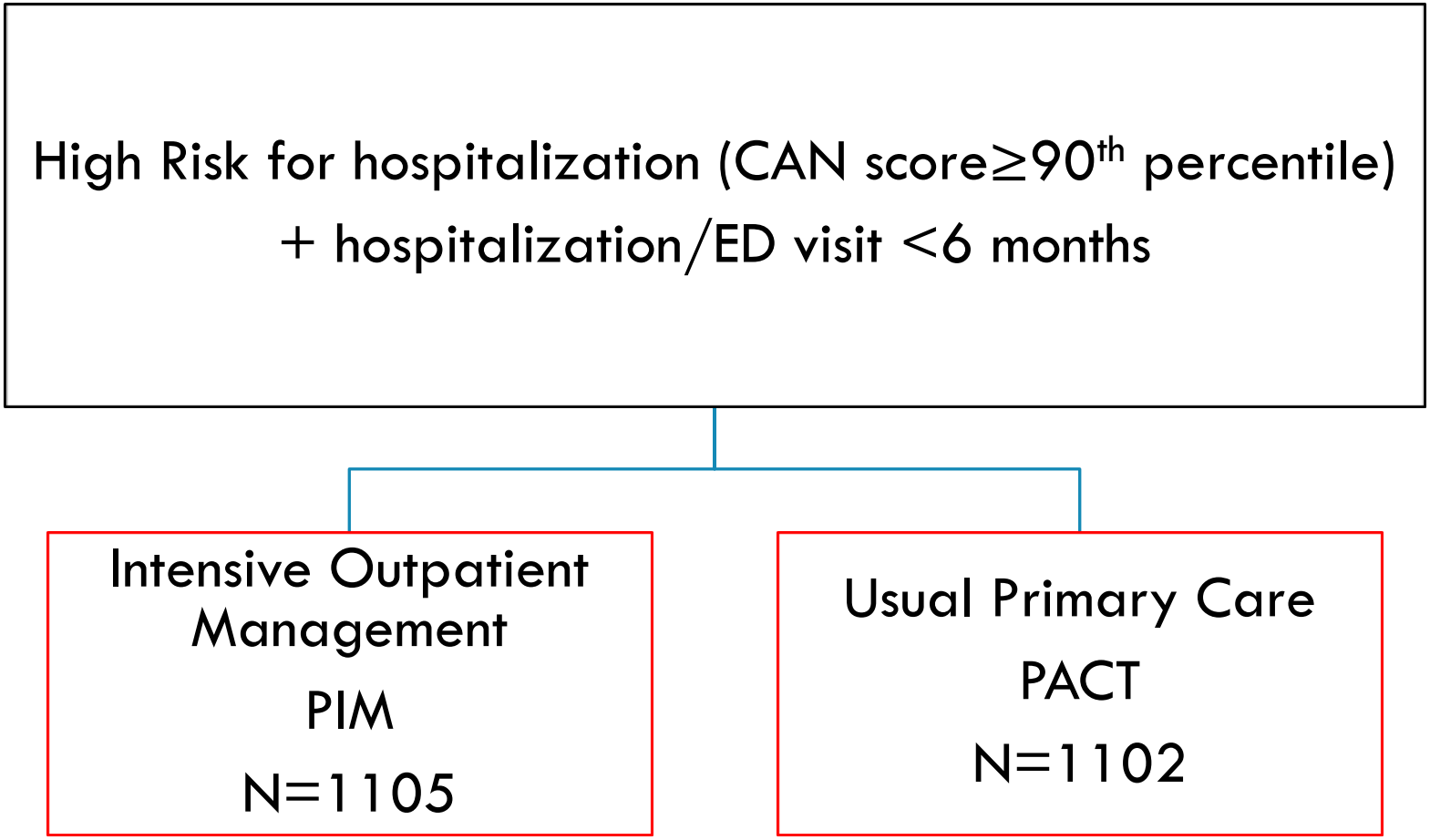
Evaluation team provides lists of patients randomly chosen from target patient population to invite to PIM (2014-2015).

PIM targets Veterans with Care Assessment Needs (CAN) $\geq 90^{th}$ percentile and with a 6-month history of ED visit or hospitalization in VA setting.

- Not in a comprehensive care program (H-PACT, HBPC, palliative care, nursing home) in the past 2 months.

Sites can refer a limited number of Veterans into PIM.

PIM DEMONSTRATION AS RANDOMIZED QUALITY IMPROVEMENT TRIAL



PIM EVALUATION COMPONENTS

- Program Activities and Clinical Outcomes
  - Health Factors (CPRS standardized templates)
- Patient Experience
  - Survey of patients in PIM and PACT (2016)
  - Interviews with patients in PIM (2015-2016)
- PACT Experience
  - Survey of PACT team members (2014-2016)
  - Interviews with PACT staff: MD, RN, SW (2017)
- Cost & Utilization
  - CDW Medical SAS files, Managerial Cost Accounting (MCA), Fee-basis data
  - Program costs

WHO WERE THESE HIGH-RISK PATIENTS?

	PIM, N=1105	PACT, N=1102
Male gender	90%	90%
Age, mean (± SD)	63 (12)	62 (13)
Marital status		
Married	33%	32%
Divorced/Separated/Widowed	50%	45%
Single	17%	22%
Service connected ≥ 50%	40%	38%
Race/ethnicity		
White	49%	48%
Non-white	51%	52%
Number of chronic conditions, mean (± SD)	7 (3)	7 (3)
Hypertension	68%	65%
Depression*	33%	37%
Mean # VA ED visits, 12 mo prior (± SD)	1.9 (1.5)	1.9 (0.6)
Mean # VA inpatient stays, 12 mo prior (± SD)	1.3 (0.7)	1.4 (0.8)

*P=0.05

SD = standard deviation

PACT INTENSIVE MANAGEMENT (PIM) LESSONS LEARNED

Not all high-risk patients need intensive management.

- 390/1105 (35%) patients were not contacted or could not be contacted
- They were considered by PIM teams to be ineligible (e.g., outside eligibility area for home visits; mental health or substance use condition; no ambulatory care-sensitive condition)
- They were thought to be receiving appropriate management in PACT

Half of high-risk patients identified for PIM team were enrolled.

- 572/1105 (52%) patients received PIM services

FOLLOW-UP ON MR. A

Mr. A is a 65 year-old Vietnam Veteran with history of hypertension, chronic lower back pain, shoulder pain, and polysubstance abuse, who lived with family.

He enrolled into PIM during a hospitalization with a new diagnosis of multiple myeloma. Veteran's goal was to re-gain independent living within 6 months and to "beat cancer." PIM team goals were to assist patient with maintaining sobriety and adherence to medication and Hematology/Oncology treatment plan.

NP&SW assisted with discharge to home and performed a home visit assessment. Interventions also included co-attending specialty visits (VA and non-VA) and providing support and education in the home and over the telephone. NP referred patient to a substance abuse treatment program after a brief relapse. SW provided supportive counseling, as well as community referrals for housing and furniture.

After 5 months, the Veteran moved into subsidized housing. He continues to adhere to the Hem/Onc plan of care. His WBC count is improving, and he has been sober for 6 months.

PATIENTS REPORTED POSITIVE EXPERIENCES WITH PIM

- Most would recommend PIM to other Veterans
- Several commented that PIM should be continued or expanded

*"**My health has gotten a little better since they took over** because they got me on the right medication, and they showed me the proper foods that I needed to eat for my diabetes. They sat me down and clearly made everything so understandable…I never got that before." (#155)*

*"**…I know I can count on them**, I know I can call them if I ever have a problem or anything like that, and they have given me courtesy calls and I like that too, just in case…We work well together." (#62)*

Source: 2016 Interview with Patients (n=51)

PIM PATIENT SURVEY (2016)

Objective: Determine whether PIM is associated with improved patient experience

Population: High-risk patients randomly assigned to PIM or PACT

Mode: Mailed survey with follow-up by phone

Respondents:

- 1283 PIM (768 responses; response rate= 60%)
- 1283 PACT (759 responses; response rate= 59%)

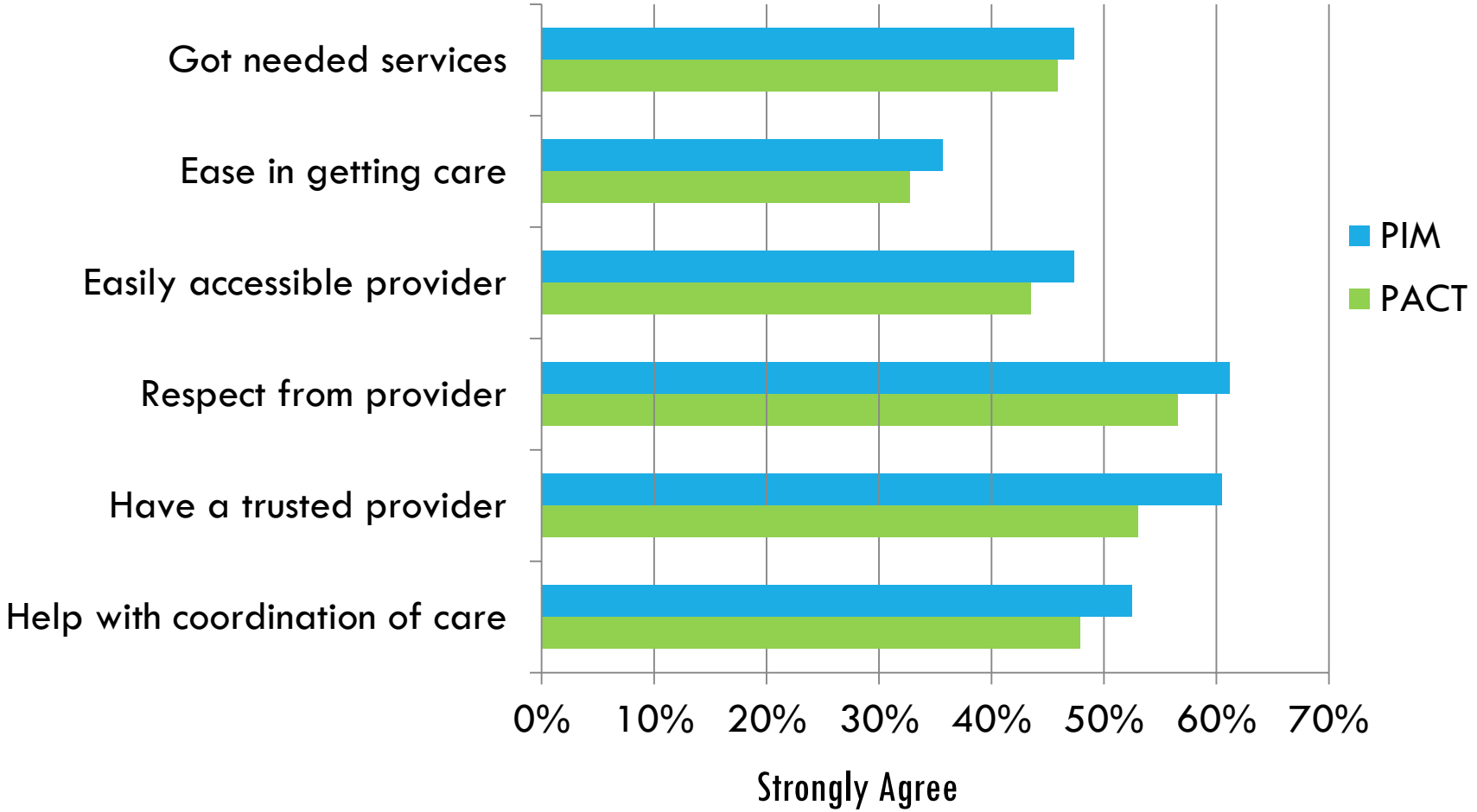
Primary Outcomes:

- Satisfaction, Access, Care Coordination, Patient-Centered Care

Analyses:

- Multivariate regression with site-level fixed effects

PATIENTS IN PIM TRUSTED PROVIDERS IN VA MORE THAN THOSE WHO WERE NOT IN PIM



Source: 2016 Survey of High-Risk PIM and PACT Patients (N = 1527)

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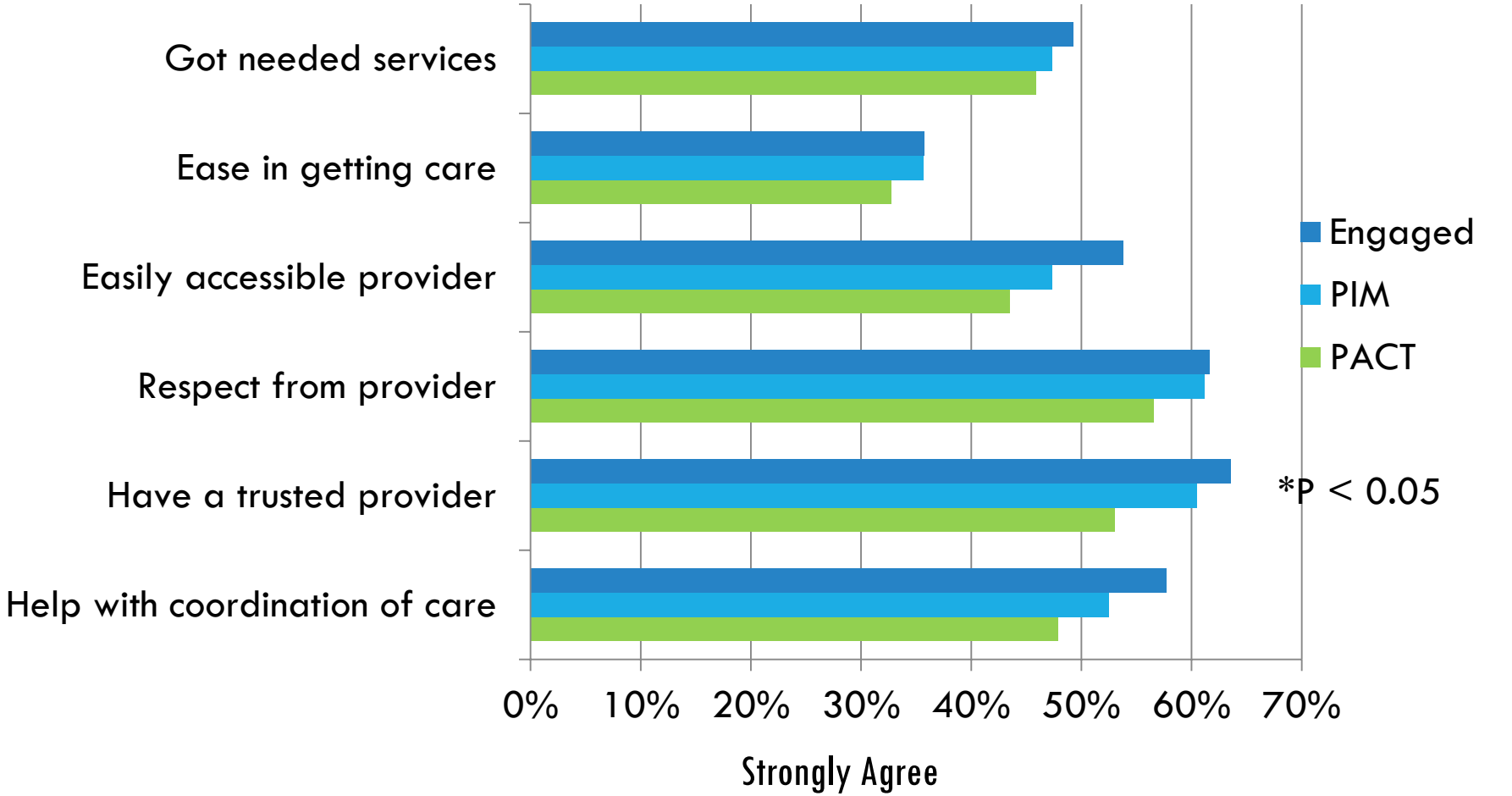
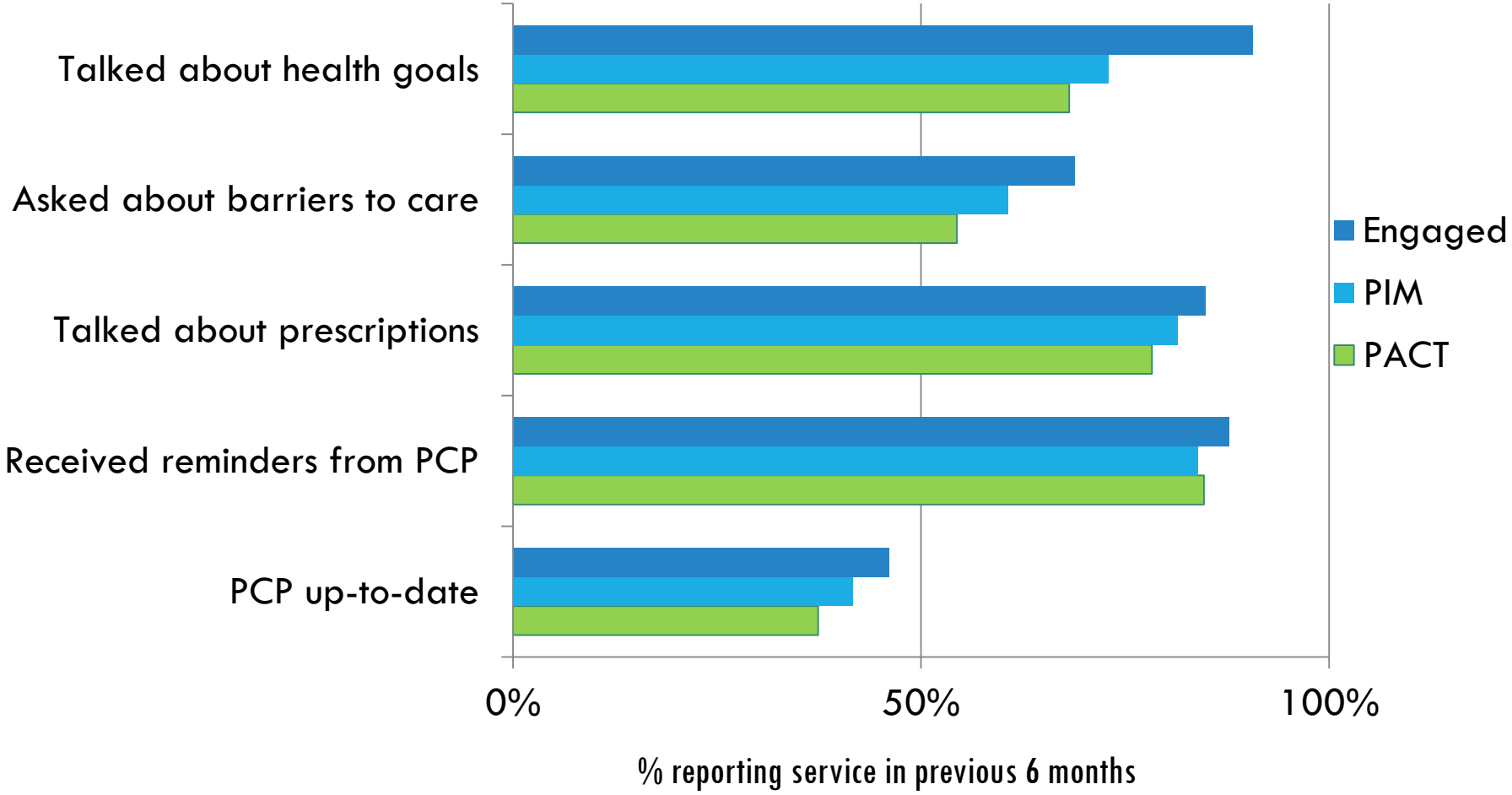
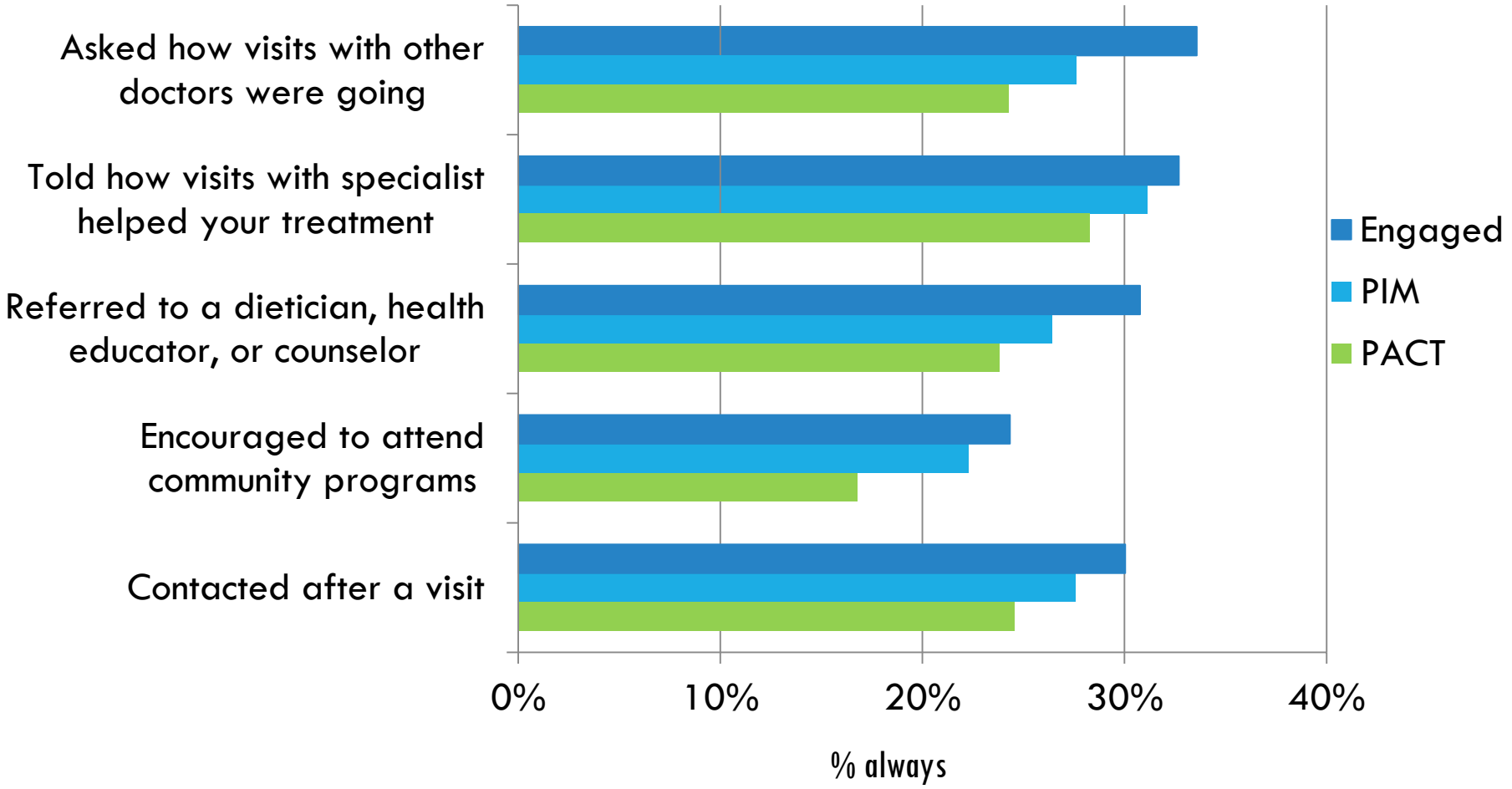


Source: 2016 Survey of High-Risk PIM and PACT Patients (N = 1527)

TREND TOWARDS IMPROVED PATIENT-CENTERED CARE AMONG PIM PATIENTS



TREND TOWARDS IMPROVED CARE FOR CHRONIC ILLNESS



PACT SURVEY SAMPLE

Invited Primary Care Providers (MD, PA, NP) and Nurses (RN, LVN, LPN) practicing at the five PIM demonstration site medical centers

- VAMC, CBOC, ambulatory care clinics
- Not still in training (i.e., resident, trainee)
- May not be exposed to PIM

Wave 1: Fielded online Dec 2014 – Jan 2015, paper and online May 2015 – June 2015. Response rate: 45%

Wave 2: Fielded online & paper October 20, 2016-January 6, 2017. Response rate: 34%

PACT PROVIDERS WANT HELP WITH CARING FOR HIGH-RISK PATIENTS

Caring for high-risk patients is one of the most stressful aspects of my job (49%)

Overall, I am satisfied with the help I receive to care for my high-risk patients (39%)

My job would be better if I had an interdisciplinary team to help care for my high-risk patients (78%)

Source: 2014-15 Survey of PACT Providers and Nurses (N = 447)

PACT STAFF NEED HIGH LEVEL OF ASSISTANCE OUTSIDE OF PACT TO MANAGE PATIENTS WITH:

Chronic pain (50%)

Frequent walk-in visits (46%)

Poor self-management for problems, symptoms, or illnesses (43%)

Medical conditions and comorbid psychiatric disorder (42%)

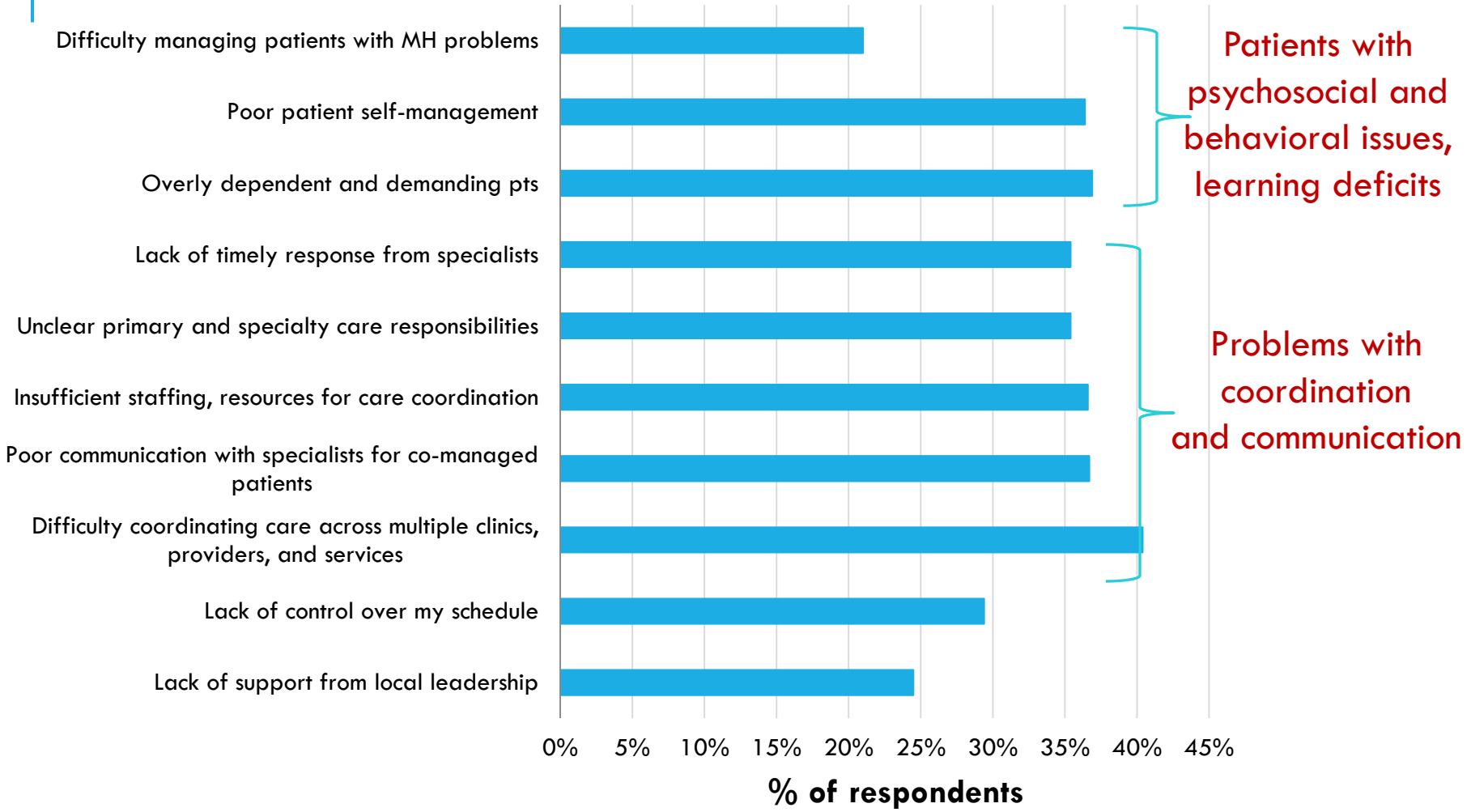
Poor adherence to critical medications (42%)

Frequent hospitalizations or emergency department visits (41%)

Medical conditions and comorbid substance use disorder (40%)

Source: 2017 Survey of PACT Providers and Nurses (N = 294)

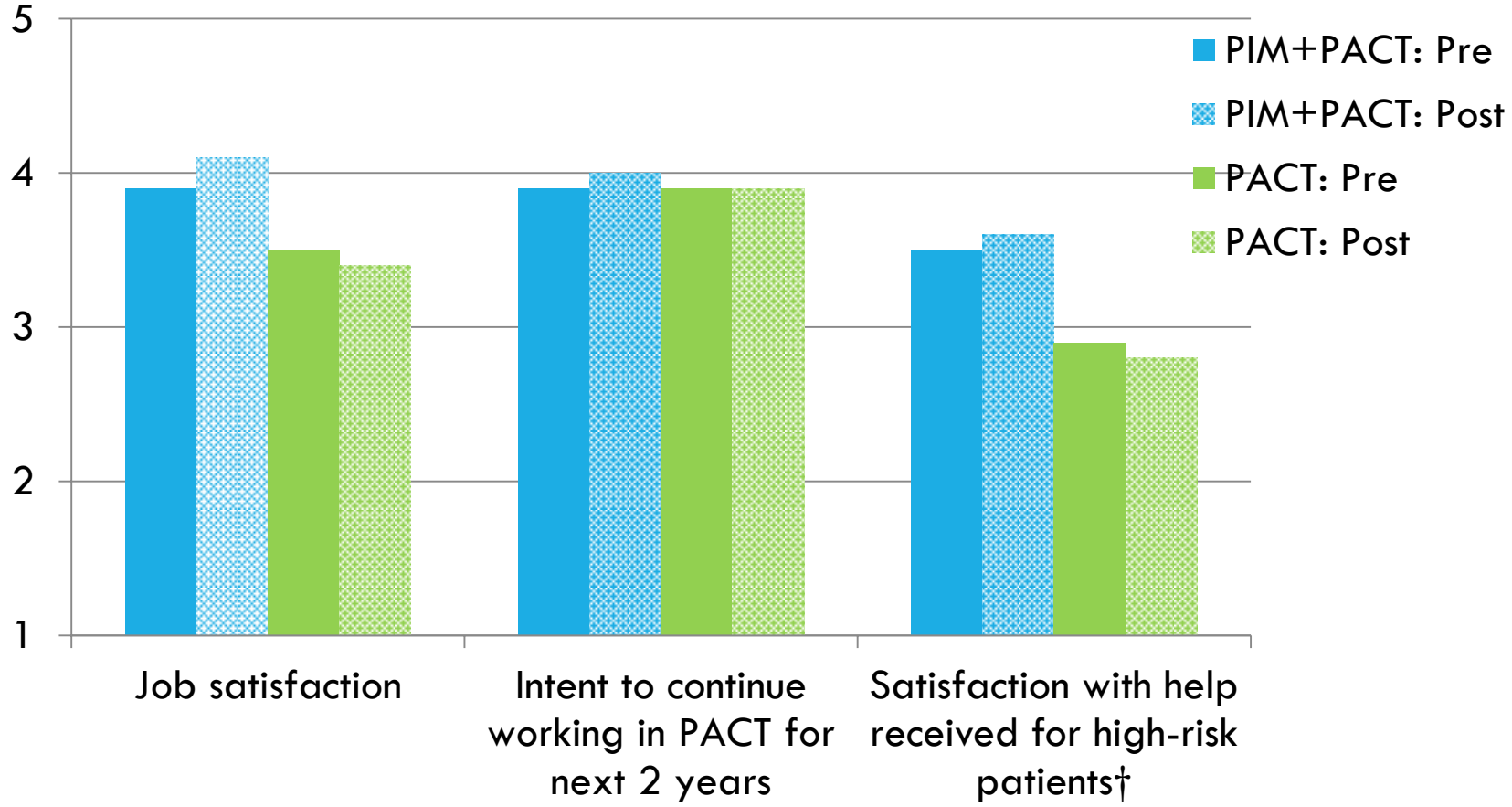
WHY DO HIGH-RISK PATIENTS REQUIRE TIME AND RESOURCES FROM PRIMARY CARE TEAMS?



Source: 2014-15 Survey of PACT Providers and Nurses (N = 447)

PACT PROVIDERS WERE MORE SATISFIED WITH HELP RECEIVED HIGH-RISK PATIENTS

NOTE: GRAPH SHOWS ADJUSTED RESULTS; WEIGHTED FOR NONRESPONSE, CLUSTERED BY SITES



† p=0.06 after adjusting for provider-level and site-level covariates

Source: 2015 Survey of PACT Providers and Nurses (N = 447) and 2017 (N=294)

PACT PROVIDERS THOUGHT PIM WAS HELPFUL

PACT providers thought that PIM helpful for time-consuming patients, transitions of care, understanding Veterans' barriers to care in their home/community environments

"…when you have more people involved in the care, sometimes it does add to your workload because there's more being told to you …. But in general, I think they very much help with my workload and also with my sense that we're providing really good care to the patients, because they're able to do things that I might not have even had time to do." (PACT PCP - #103)

Source: Interviews with PACT teams, 2016-2017 (n=29)

TOP REASONS FOR WHY PCPS WANTED PIM INVOLVED

Adherence to medications, treatments, or appointments (n=124)

Home assessment and evaluation (n=124)

Comprehensive assessment of medical & psychosocial needs, care planning (n=115)

Self-management and lifestyle changes (n=63)

Difficult-to-control symptoms or illnesses (n=59)

Other: Education about dx and appropriate VA resources, alcohol use, financial abuse by caregiver, hoarding, fall risk, difficult personality, transportation, driving safety, cognitive screening, anger, pain management, transgender resource

Source: Health Factor Data as of March 31, 2016

COST AND UTILIZATION ANALYSES METHODS

Intent-to-treat analysis using differences-in-differences (DID) 12-month period prior to and 12-months following randomized assignment.

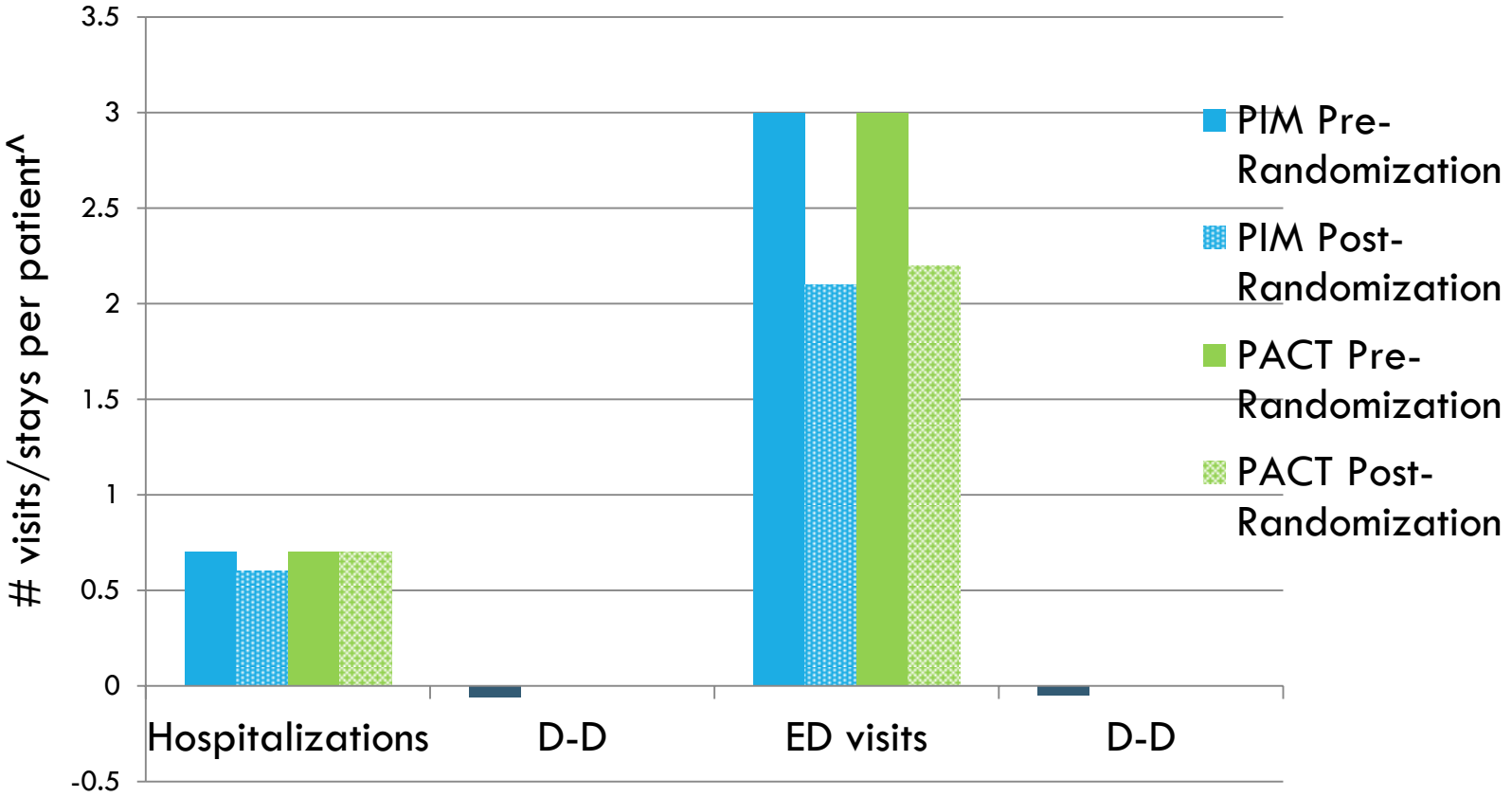
Outcomes included utilization (hospitalizations, ED visits, outpatient visits by type) and VA costs

Ordinary Least Squares for regression models

- Sensitivity analyses using models for count data models, Generalized Linear Models and log costs

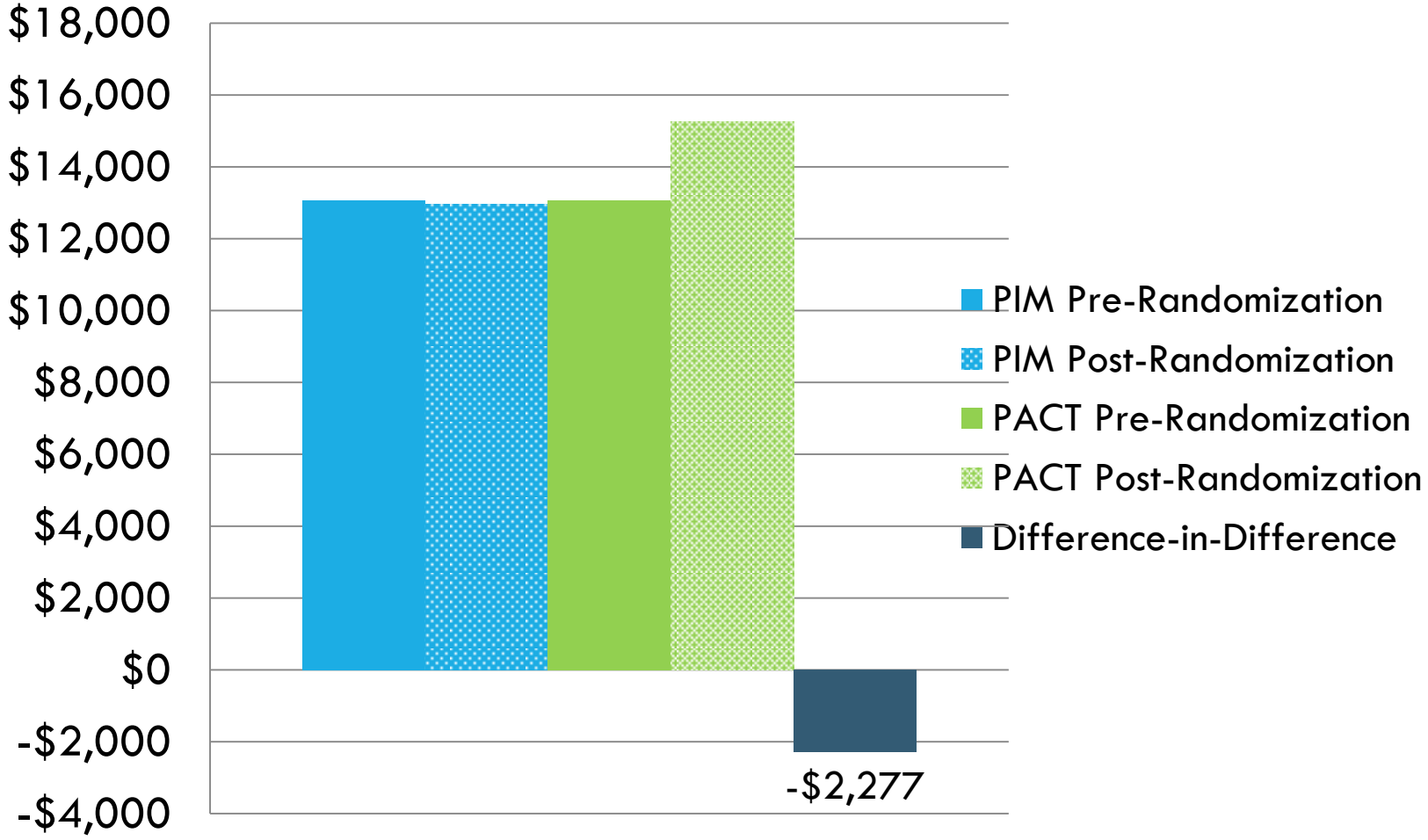
Fixed effects for patient

NO SIGNIFICANT EFFECT ON ACUTE CARE UTILIZATION AFTER 12 MONTHS



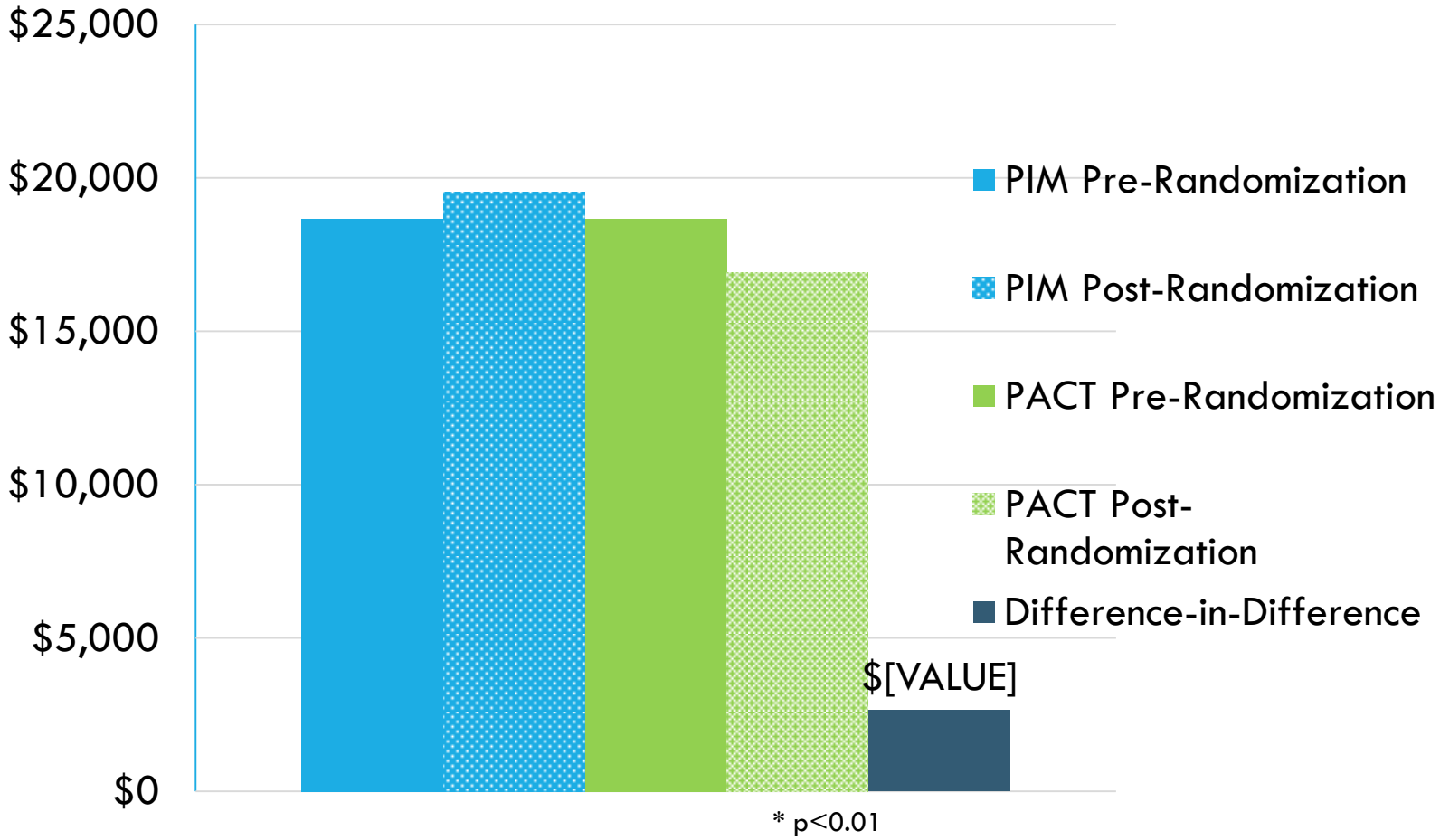
^Predicted means from regression models

INPATIENT COSTS INCREASED SLIGHTLY AMONG PATIENTS IN PACT



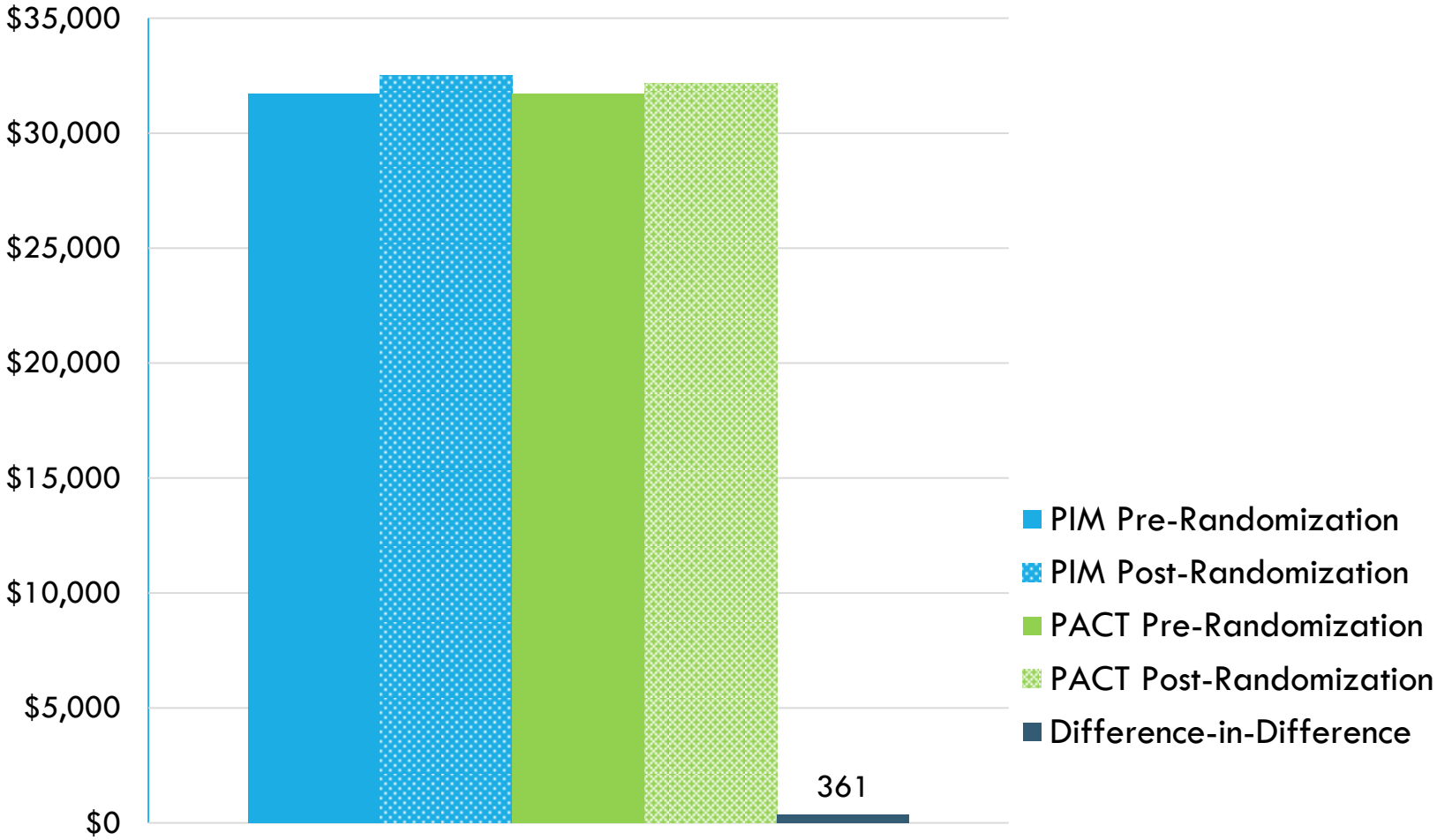
^Predicted means from regression models

OUTPATIENT COSTS INCREASED SIGNIFICANTLY AMONG PATIENTS IN PIM



^Predicted means from regression models

OVERALL NO DIFFERENCE IN TOTAL COSTS



^Predicted means from regression models

POTENTIAL EXPLANATIONS FOR MODEST EFFECTS ON COST

- Benefits of intensive management may require more time (e.g., to build trust, change behavior and chronic condition management, decrease complication rates).
- Program may be effective for certain patients, but selection process included patients unlikely to benefit (e.g., not likely to engage, non-modifiable risk factors)
- PIM may lead patients to seek care within rather than outside VA
- Need to refine match between patient needs and expertise (e.g., mental health, geriatrics)

LESSONS LEARNED: IMPORTANT KEY PIM FEATURES

Teams should include both a social worker and a mental health provider (e.g., psychologist).

Teams should meet at least **weekly** to discuss high-risk patients and their treatment plans.

Comprehensive assessment should include assessment of patient goals and physical, psychological, social needs.

Many patients with trajectories that may not change, so **advanced care planning** important

Providing **caregiver education and support** important for behavior change.

LESSONS LEARNED: PIM DEMONSTRATION PROGRAM

- Rigorous evaluation critical
  - High-cost/high-utilizers experience regression to mean
- Implementing intensive management programs takes time
  - Hiring/training, refining program in response to patients' needs, building relationships with PCPs/specialists, engaging patients and building trust
- One-size-fits-all approach likely ineffective
  - Certain patients more likely to engage in and respond to these programs
  - Some patients may benefit from in-depth assessment and recommendations, but not need ongoing PIM support
  - Provider referral could help identify patients likely to benefit from PIM
- Iterative improvement and evaluation key to care redesign

SUMMARY

PACT Intensive Management (PIM) initiative is an opportunity for VHA to learn about how to better manage high-needs, high-cost patients as a learning healthcare organization

Five demonstration sites have developed innovative care coordination strategies and served as expert resource to their PACT teams

Patients and PACT teams have appreciated the help that PIM teams offer

PIM program paid for itself

FUTURE OF PIM DEMONSTRATION: PIM 2.0

PIM 2.0 standardized model consists of:

- Referral program at the 5 demonstration sites (October 2017 – Sept 2018)
- Interdisciplinary team with MD, RN, SW, MH provider
- Adjunct to PACT rather then stand-alone PACT
- Population-level interventions, PACT-level interventions

Development of tools to assist PACT teams in caring for high-risk patients, to be released in 2019

ACKNOWLEDGEMENTS: MEMBERS OF PIM INITIATIVE

PIM Demonstration sites: Parag Dalsania, Jessica Eng, Nate Ewigman, Deborah Henry, Jeff Jackson, Neha Pathak, Brook Watts

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CLEVELAND PIM TEAM

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Frances Gutierrez, CNE; Cortney Muns, CNS;
Derek Storch, MSA; Sheila Scott, CNE;
Irene Kostiwa, clinical psychologist

SALISBURY PIM TEAM

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Roy Sudip, MD; Mishelle Salaam, LPN

SAN FRANCISCO PIM TEAM

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Nathan Ewigman, clinical psychologist; Robert Carr, RN

QUESTIONS/COMMENTS?

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