

SMI PACT: A Specialized Primary Care PACT to Improve the Health Care of Veterans with Serious Mental Illness

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September, 2020



Disclosure

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No relationships or conflicts of interest related to the subject matter of this presentation

Spotlight on VA Mental Health Centers of Excellence

- **VA Mental Health Centers of Excellence** (including Mental Illness Research, Education and Clinical Centers [MIRECCs]) are critical to VA's response to meeting the mental health needs of Veterans.
 - **Shared mission:** To improve the health and well-being of Veterans through world-class, cutting-edge science, education, and enhanced clinical care.
 - **Shared structure:** To combine education, research, and clinical care into a single program to dramatically reduce the length of time between scientific discovery and implementation.
- **15 Centers** located across the country
- **Distinct specializations** (specific disorders, type of problem, populations, settings) to best understand the complex context of health care services access and delivery.
- **Significant collaborative partnerships** with clinical, research, and educational experts from academic affiliates and other organizations
- Learn More at www.mirecc.va.gov

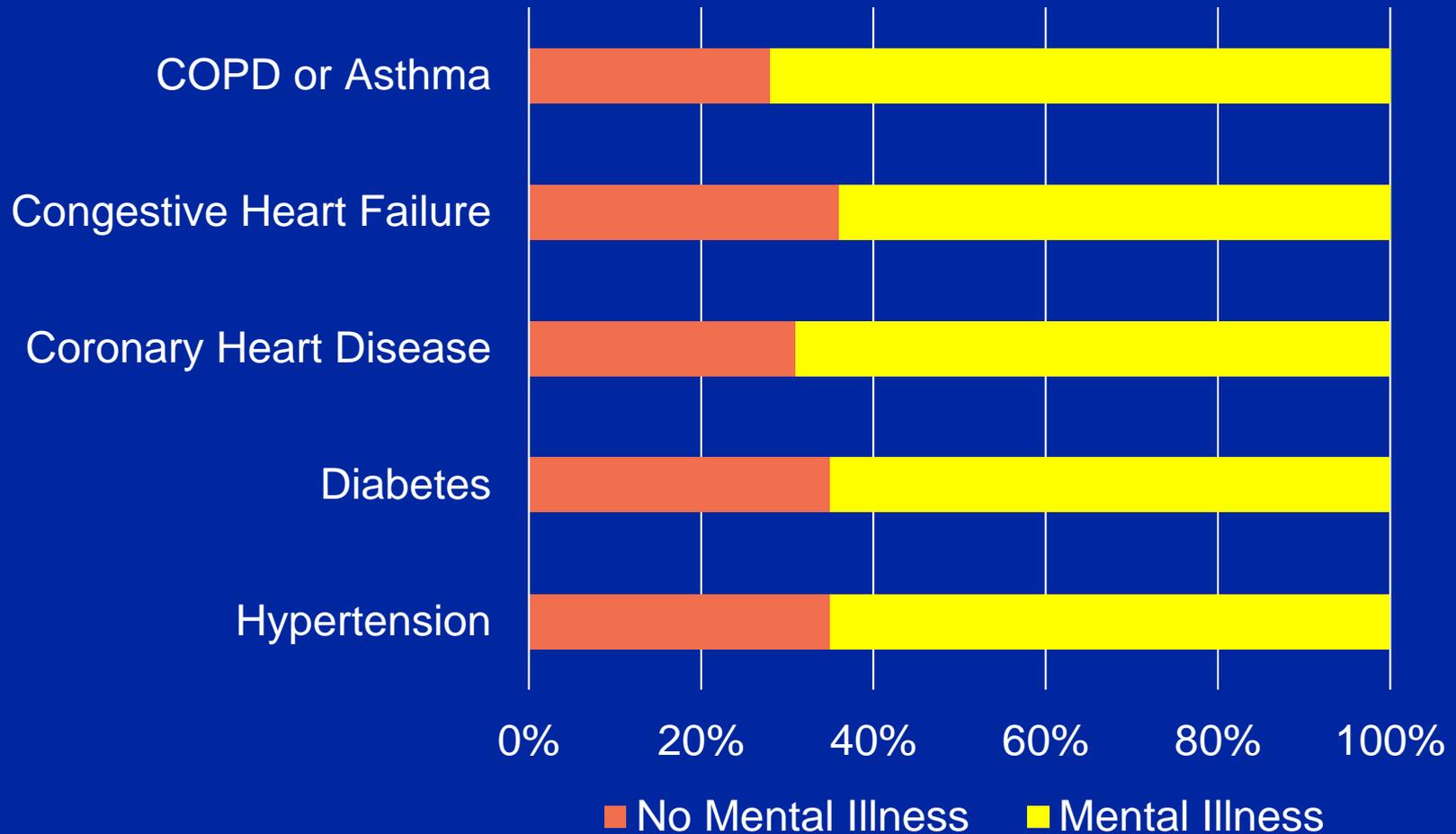
VISN-22 MIRECC & SMI PACT

- The VISN-22 MIRECC focuses on improving the functional outcomes of Veterans with serious mental illness.
- The SMI PACT study was supported by VA HSR&D QUERI and the VISN-22 MIRECC. It is a partnership among VA HSR&D QUERI, VA mental health, and VA primary care services.

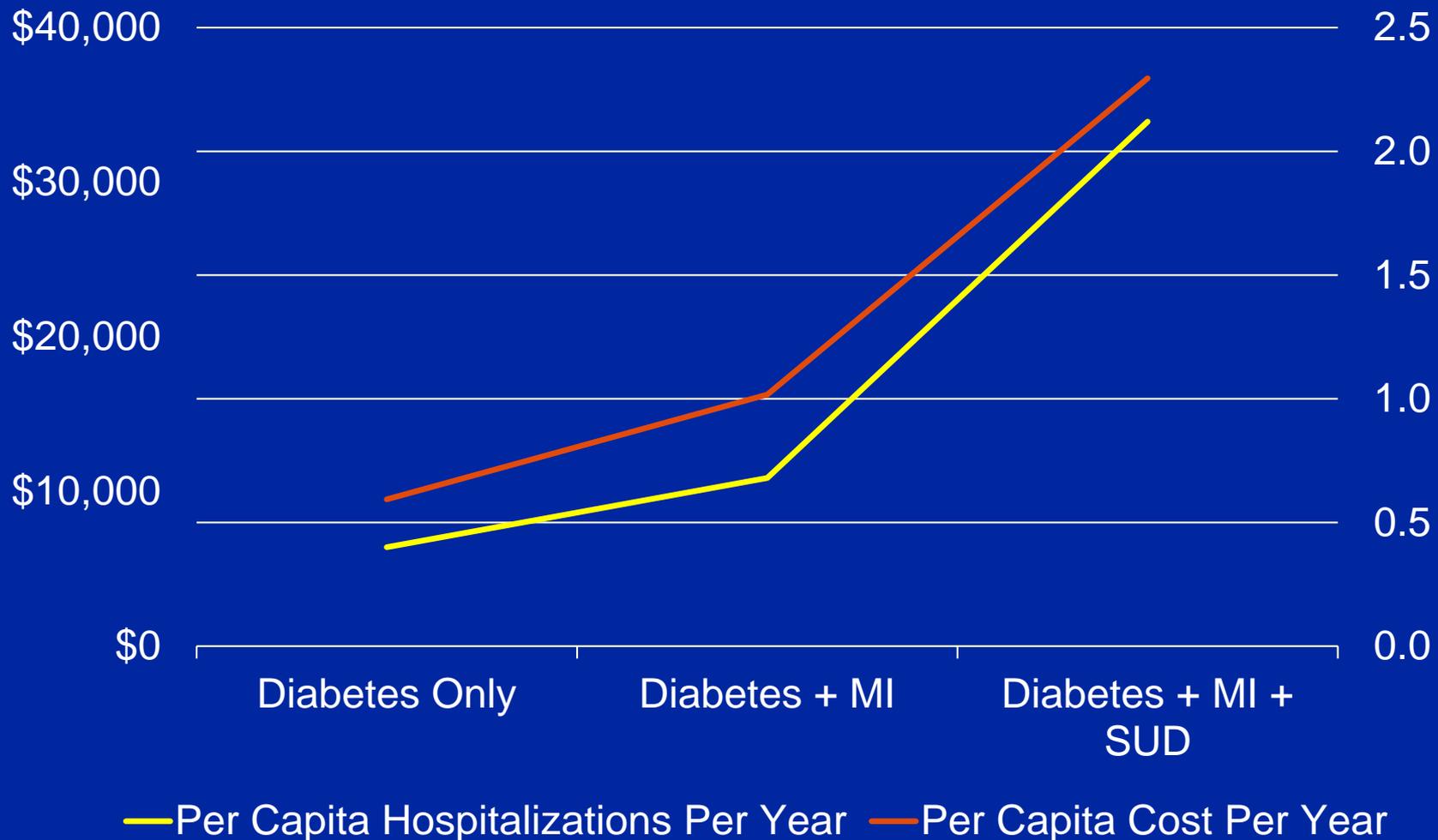
Serious Mental Illness (SMI): Complex Needs & Poor Outcomes

- Common, high-cost disorders
 - bipolar, schizophrenia, major depression, chronic PTSD
- High rate of premature mortality
 - 3 times the general population
 - 10 to 15 years of life lost
 - mostly due to cardiovascular, respiratory, cancer
- Not well engaged in primary care
 - cognitive deficits, social disadvantage
 - fail to get high-value primary care services
 - life expectancy has not increased with rest of population

Mental Illness Among Disabled Patients with Medical Disorders



Impact of Mental Illness (MI) on Costs and Hospitalizations



Poll Question #1

- What is your primary role in VA?
 - physician, nurse practitioner, physician assistant
 - other clinician
 - student, trainee, fellow
 - VA researcher
 - non-VA researcher
 - administrator, manager, policy-maker
 - other

Poll Question #2

- What is your primary VA clinical location?
 - primary care
 - mental health
 - substance abuse
 - other clinical service
 - none

Integrated Care Model for Veterans with Complex Needs

- How to organize primary care for complex patients with substantial specialty needs?
- Many projects on SMI outside VA
 - high priority as systems become responsible for populations
 - rarely studied using experimental designs
 - a few projects in VA
- Research has been rare
 - inconsistent results
 - regression to the mean

Overview

- Improve primary care of Veterans with SMI
- Build on PACT
- Integrated care management & medical care management
 - VA Primary Care Mental Health Integration (PCMHI)
- Grant from HSR&D QUERI
- Hybrid implementation effectiveness study
- Clustered controlled trial in VISN 22

Aims

- Implement SMI PACT model
 - one VISN 22 medical center
- Study model effectiveness
 - compare to two other VISN 22 medical centers
 - study change over time
- Outcomes
 - quality of primary care
 - care experience, chronic care, symptoms, quality of life
- Formative evaluation
 - implementation, acceptability, barriers, facilitators
 - context, intervention, outcomes

SMI PACT Team

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SMI PACT Clinical Model

- Engage patients in primary care
- Collaborative care for SMI
- Integrated medical and psychiatric treatment (PCMHI)
 - care coordination
- Proactive nurse care management

Patient Eligibility

- Diagnosis of SMI
 - schizophrenia
 - major depression with psychosis
 - bipolar disorder
 - chronic, serious post-traumatic stress disorder
- Elevated medical risk: CAN > 75th percentile
- Stable mental health - not high risk
 - Milestones of Recovery (MORS) score ≥ 6

Identify Risk for Hospitalization or Death using CAN Score

<u>Demographics</u>	<u>Utilization</u>	<u>Chronic Illness</u>	<u>Pharmacy</u>
Age Group	No. Hospital/Bed Days	Deyo-Charlson Score	Antipsychotic
Air Force Flag	No. Medical Providers	HCCs:	Beta-blocker
Eligibility (1, [2-4], 5+)	No. Visit Type:	AFib and CHF	Benzodiazepine
Rank Flag (Officer vs Enlisted)	All	Dementia	Beta agonist nebulizer
Marital Status	Inpatient	Mental Health and PTSD	Furosemide
Priority	Emergency Care	Metastatic Cancer	Statin
SES index	Cardiology	Alcohol	Metformin
Sex	CT	Chronic Airway Obstruction	NSAID
	Mental Health		Furosemide Tablets
	Other Non-Face		No. of drugs filled
<u>Vital Signs</u>	Primary Care (PC)	<u>Lab/Radiology</u>	<u>Text Notes</u>
BMI (≥ 40)	Phone Care	No. Albumin	No. Consent Notes
Weight Variability	PC Phone Care	No. Blood, Urine, Nitrogen	No. Telephone Notes
HR (80-60)	No. 11-20min Phone	Lymphocytes (Low)	
Resp Rate (≥ 20)	No. 21-30min Phone	Red Blood Cells (Low)	
Sys & Dias BP	No. Est Office Visit	Sodium (Low)	
		White Blood Cells (High)	
		No. Troponin	

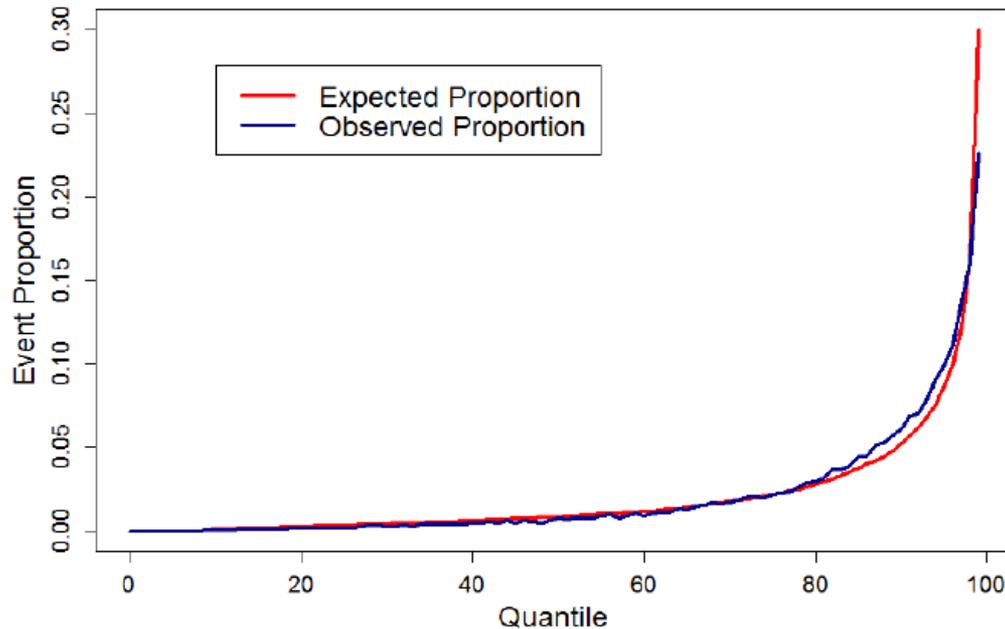
[Med Care](#). 2013 Apr;51(4):368-73. doi: 10.1097/MLR.0b013e31827da95a.

Predicting risk of hospitalization or death among patients receiving primary care in the Veterans Health Administration.

Wang L¹, Porter B, Maynard C, Evans G, Bryson C, Sun H, Gupta I, Lowy E, McDonnell M, Frisbee K, Nielson C, Kirkland F, Fihn SD.

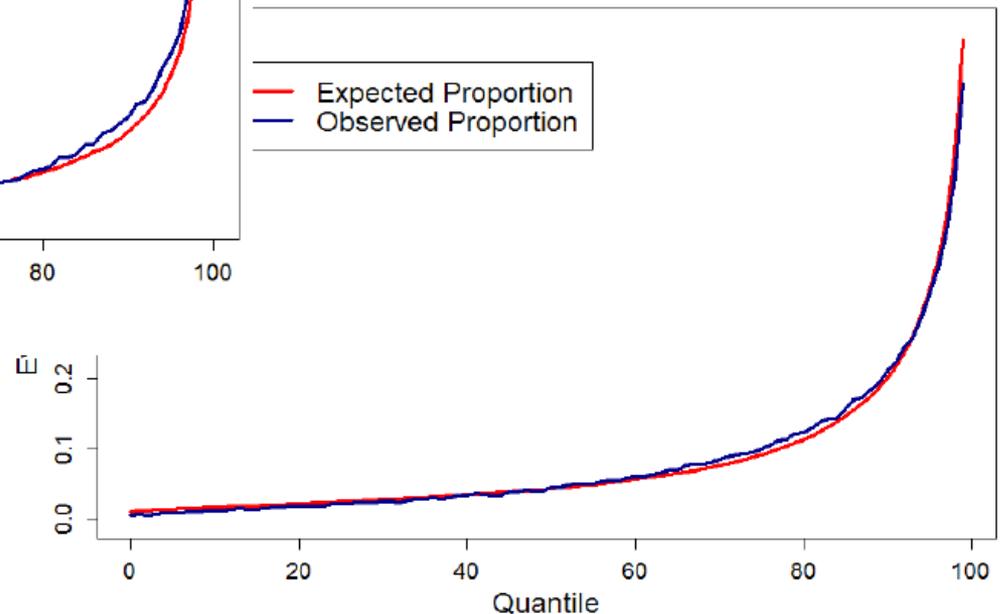
Identify Risk for Hospitalization or Death using CAN Score

1 Year - Mortality (2013)



Hospitalization - 1 year	0.81
Hospitalization - 90 day	0.83
Mortality - 1 year	0.85
Mortality - 90 day	0.87

1 Year - Hospitalization (2013)



Veterans in highest %ile of risk have 58% probability of admission, 23% probability of death, and 64% probability of either event.

Milestones of Recovery Scale (MORS)

Extreme Risk	Unengaged		Engaged, Not Self-Coordinating		Self-Responsible
Locked Setting	Outreach (MHICM)	Drop-in	Intensive Case Management	Case Management	Appointment-Based Clinic
Extreme risk (1)	High risk, unengaged (2)		High risk, engaged (3)	Poorly coping, engaged (5)	Coping, rehabilitating (6)
	Poorly coping, unengaged (4)				Early recovery (7)

Patient Recruitment

1896 Eligible: At Site, SMI, Medical Risk

829 Excluded

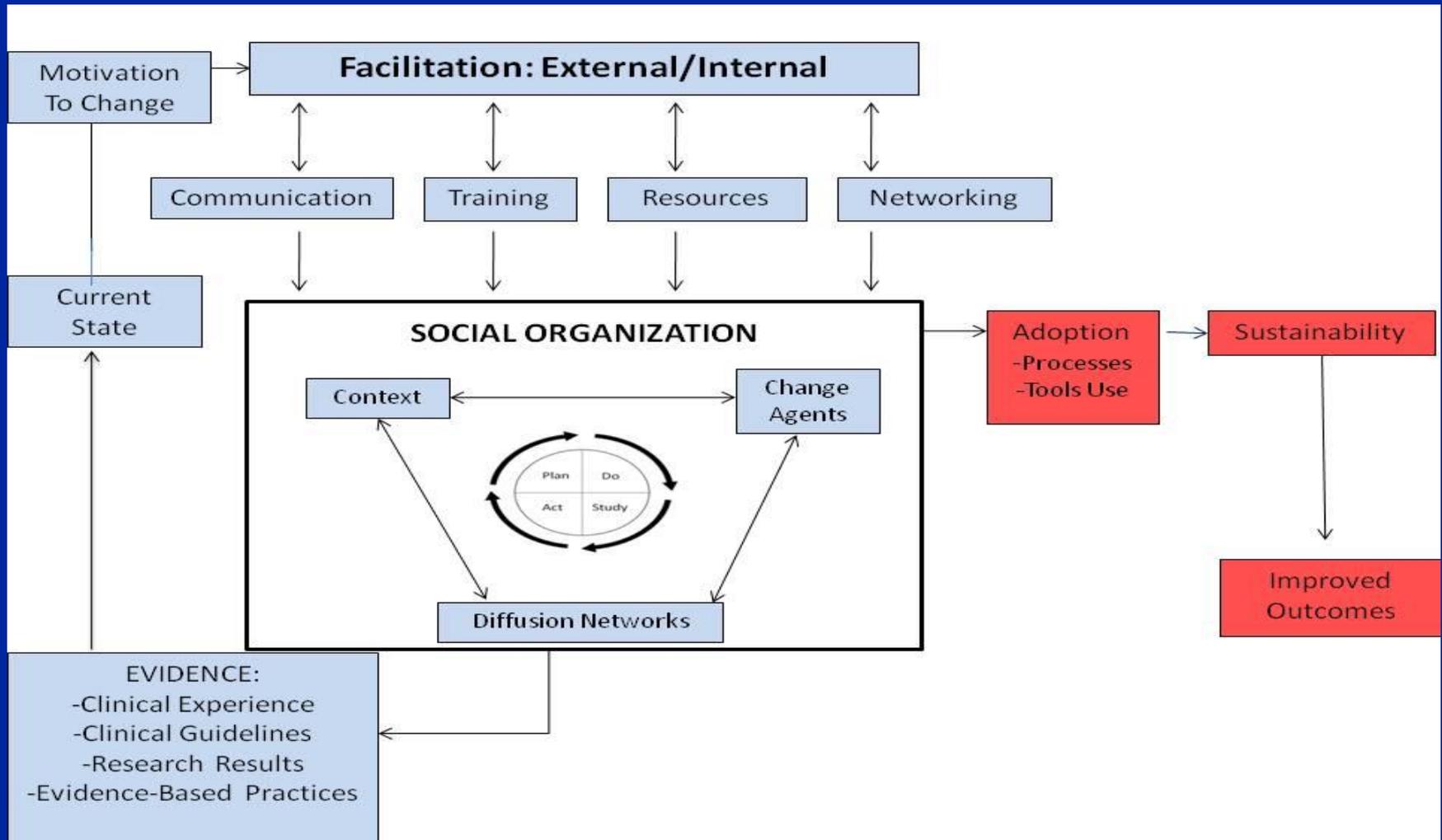
718 Low mental health recovery
87 No longer receiving care
8 Not stably housed
7 With legal conservatorship
9 Other

1067 for Invite

390 Not interested
346 Not reachable

331 Enrolled

Consolidated Framework for Implementation Research (CFIR)



Facilitation

- Preparing for SMI PACT
- Staffing SMI PACT
- Offering care to patients
- Providing SMI PACT

Role: Primary Care Physician

- Training
- Care management
- Medication monitoring
- Interface with consulting psychiatrist
- Interface with other specialists

Role: Nurse Care Manager

- Training
- Panel management
- Collaborate with other clinics & providers
- Patient education
- Smoking cessation & health coaching
- Triage walk-ins
- Review primary care almanac quality measures

Role: Psychiatrist

- Weekly meetings with primary care physician (PCP) and nurse care manager
- Available in real time by phone or IM
- Assist PCP with psychiatric treatments
- Facilitate coordination with specialty mental health
- Oversee implementation of SMI PACT model

Roles: Other

- Licensed Vocational Nurse (LVN)
 - scrub schedule, reminders to patients, manage patient messaging, review labs, pre-visit
- Social Worker
 - outreach, ensure patient engagement, social assessment, connect with resources
- Clerk
 - appointments, documentation

Methods

- Effectiveness: mixed effects repeated measures
 - compare intervention to control over time
- Formative evaluation
 - study patients, providers, context, treatments, outcomes
 - constant comparison
 - strengthen intervention

Data Sources

- Quantitative patient interviews
 - baseline and 1 year
- Semi-structured interviews
 - baseline and 1 year
 - patients
 - 39 staff: physicians, nurses, social workers, managers
- Field notes, intervention logs
- VistA data

Patients Participated

- 164 intervention, 167 usual care
- Median of 401 days
- Characteristics
 - 43% White, 34% Black, 12% Hispanic
 - 15% female
 - 28% schizophrenia, 36% bipolar, 32% PTSD
 - CAN = 86
 - MORS = 6.4
- Intervention and usual care were similar
 - more in intervention had schizophrenia: 35% vs. 21%

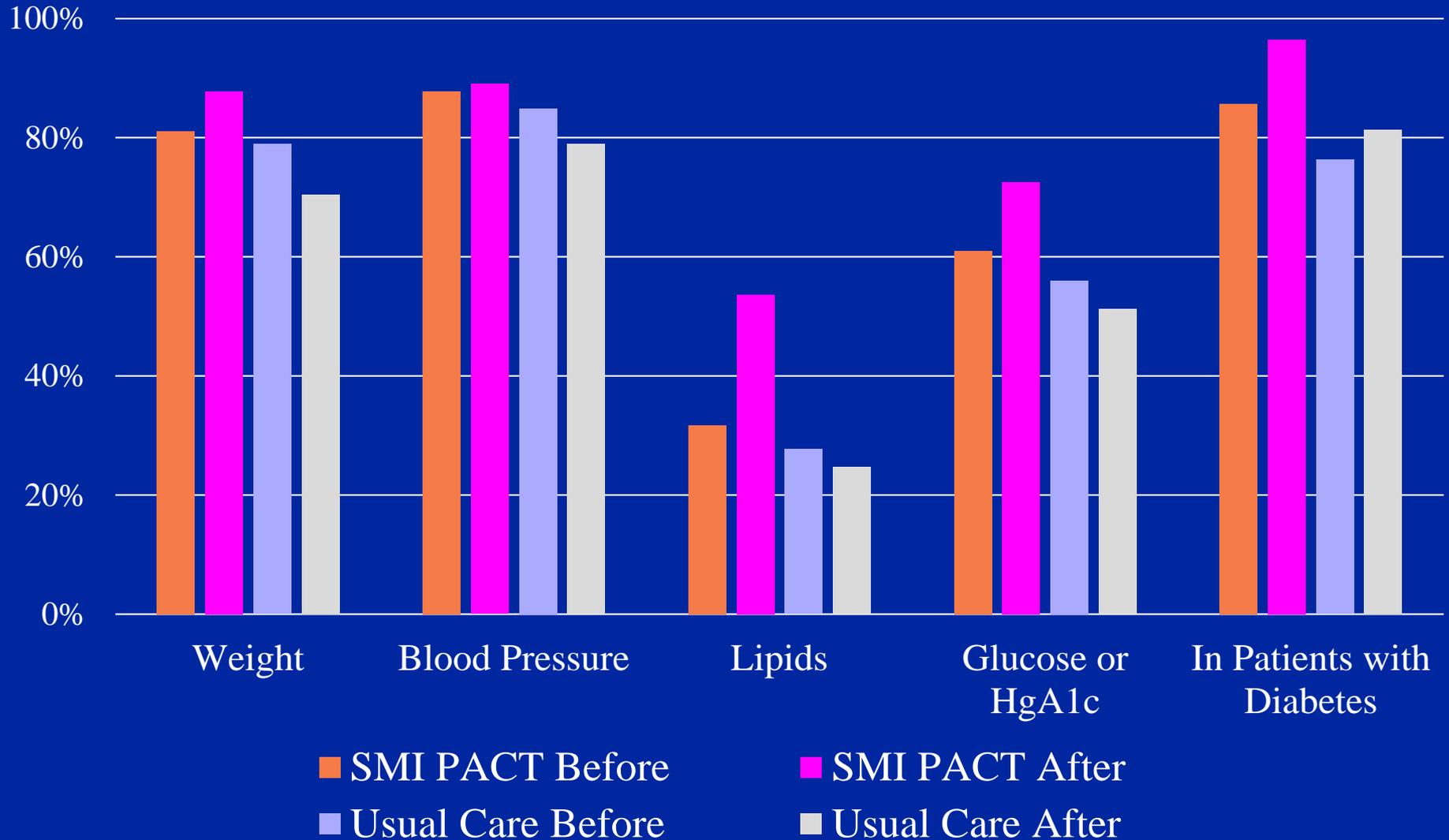
SMI PACT was Implemented

- Primary care staff training
 - motivational interviewing, mental health treatment, substance abuse treatment
- Psychiatrist integrated into PACT team
 - weekly team meeting, real time consultation
- Coordination with specialty substance abuse and mental health services
 - led by psychiatrist
- Tobacco cessation services

SMI PACT was Implemented

- 63 intervention patients (38%) moved all psychiatric care to PACT
 - one-stop shopping
- Specialty mental health was continued for stimulants, clozapine, ongoing psychotherapy, symptoms requiring medication adjustments
- No adverse events
- Challenges: nurse FTE, movement of patients between PACTs, “ownership” of patients

Metabolic Monitoring Improved



Outcomes Improved with SMI PACT

- Care experience: doctor-patient interaction, shared decision-making, care coordination, access (ACES, $p < .01$)
- Chronic illness care: activation, decision support, goal setting, counseling, coordination (PACIC, $p < .001$)
- Psychotic symptoms (BASIS, $p = .05$)
- Mental-health related quality of life (VR-12, $p < .05$)

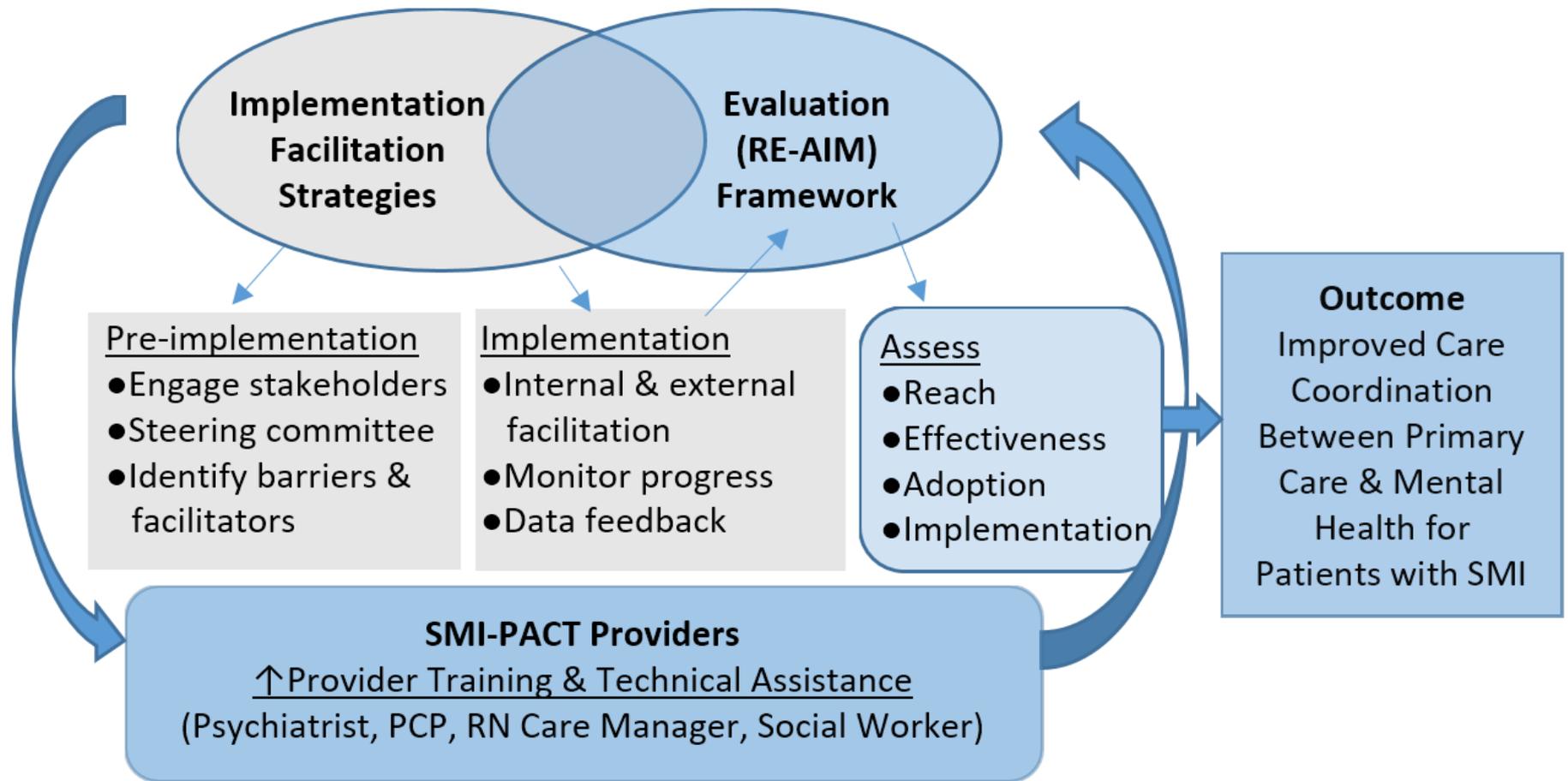
SMI PACT was Well Received

- Patient satisfaction was high
- Well accepted by clinicians
- No problems with burnout
 - additional supports to manage complex patients
- Sustained after the study

Implementation

- Tool kit is available
- Apply PCMHMHI psychiatrist staff to serious mental illness
- Offer SMI PACT supports to select PACT teams
 - avoid full time SMI PACT teams
- Patient outreach
- Target quality measures, including SAIL

Implementation



Conclusions

- First controlled trial in serious mental illness of a primary care medical home with integrated, collaborative care
- Specialized PACT for SMI is feasible, safe, more effective than usual care
- Addresses healthcare challenges faced by people with serious mental illness
- Tools available for implementation and dissemination

Questions / Comments?

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