TRANSITIONAL CARE MODEL

A Journey from Evidence to Impact

Mary D. Naylor, Ph.D., RN
2015-2016 UCSF Presidential Chair
Marian S. Ware Professor in Gerontology
Director, NewCourtland Center for Transitions and Health
University of Pennsylvania School of Nursing

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UCSF John A. Hartford Foundation Center for Gerontological Nursing Excellence

It takes a village!

Univ. of Pennsylvania Health System

Independence Blue Cross of Philadelphia

Aetna Corporation

Kaiser Permanente

Other Health Systems and Communities

CMS QIOs

PCMHs

Patients & Families

Ron Barg

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Kathryn Bowles

Alexandra Hanlon

Karen Hirschman

Kathleen McCauley

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Elizabeth Shaid

National Institute of Nursing Research, National Institute on Aging, Presbyterian Foundation for Philadelphia, Marian S. Ware Alzheimer's Program-Penn, National Alzheimer's Association, The Commonwealth Fund, Jacob & Valeria Langeloth Foundation, The John A. Hartford Foundation, Inc., Gordon & Betty Moore Foundation, California HealthCare Foundation, Rita & Alex Hillman Foundation, Jonas Center for Nursing Excellence, The Robert Wood Johnson Foundation, Patient-Centered Outcomes Research Institute

Perspectives on Chronic Illness Care in the US

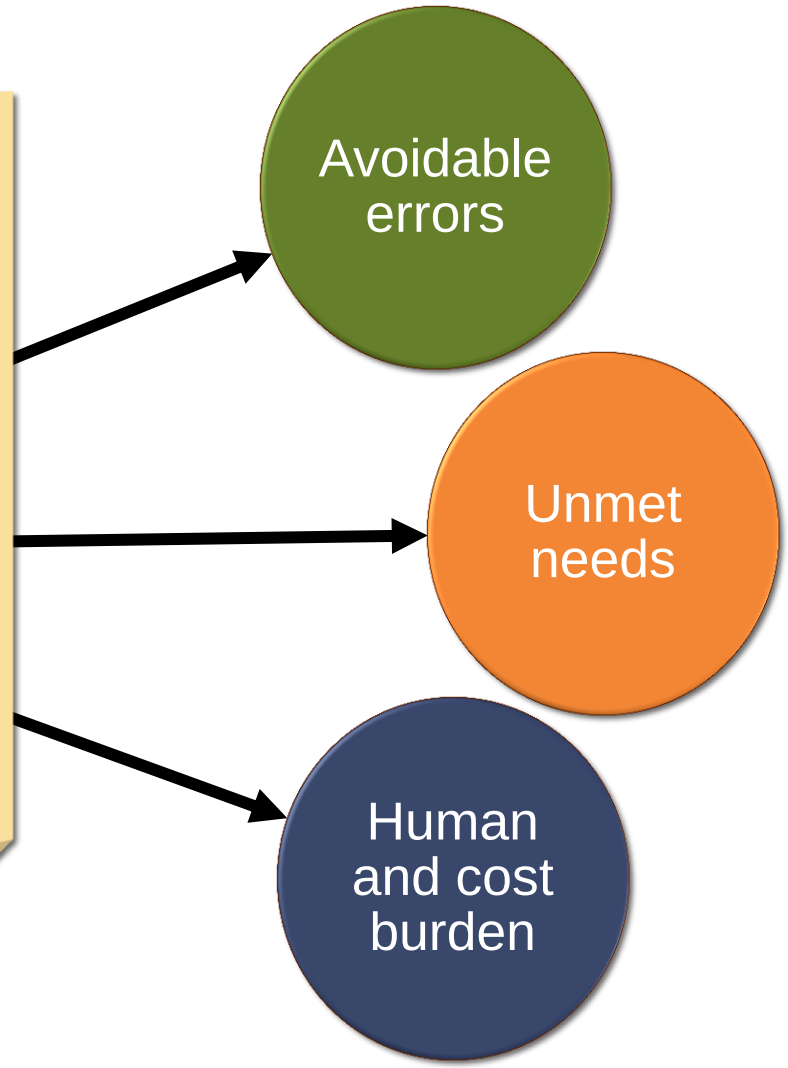
Transitional Care

Time limited services designed to ensure health *care continuity* and avoid *preventable poor outcomes* among *at risk populations* as they move from one level of care to another, among multiple health care team members, and across settings such as hospitals to homes.

(Adapted from, *J Am Geriatr Soc*, 2003, 51(4): 556-557.)

This population's encounters with the health care system are characterized by…

- Lack of patient/caregiver engagement and preparation
- Breakdowns in communication
- Limited collaboration
- Poor continuity
- Gaps in services



What does published research tell us?

- 21 RCTs of “hospital to home” innovations targeting primarily chronically ill adults
- 9/21, + impact on at least one measure of rehospitalization plus other health outcomes
- Effective interventions
  - Multidimensional and span settings
  - Use inter-professional teams with primarily nurses, as “hubs”

(Naylor et al. THE CARE SPAN--The Importance of Transitional Care in Achieving Health Reform. *Health Affairs*, 2011; 30(4):746-754.)

What are the goals of evidence-based interventions?

- Most address gaps in care and promote effective “hand-offs”
- The *Transitional Care Model* addresses “root causes” of poor outcomes with focus on longer-term value

Transitional Care Model

Unique Features (Hospital to Home)

Care is delivered and coordinated…

…by same advanced practice nurse (APN) supported by team

…in hospitals, SNFs, and homes

…seven days per week

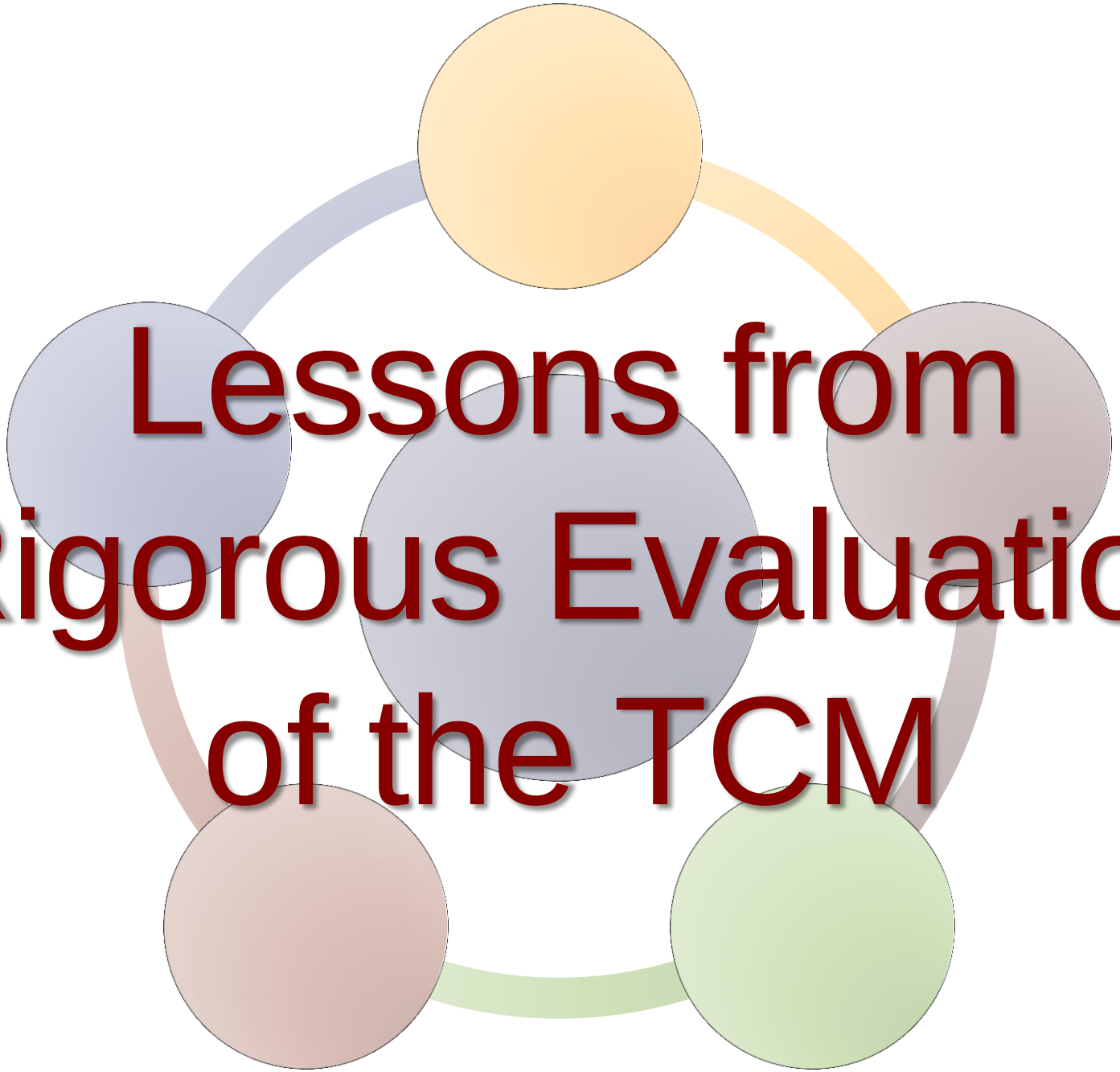
…using evidence-based protocol

…supported by decision support tools

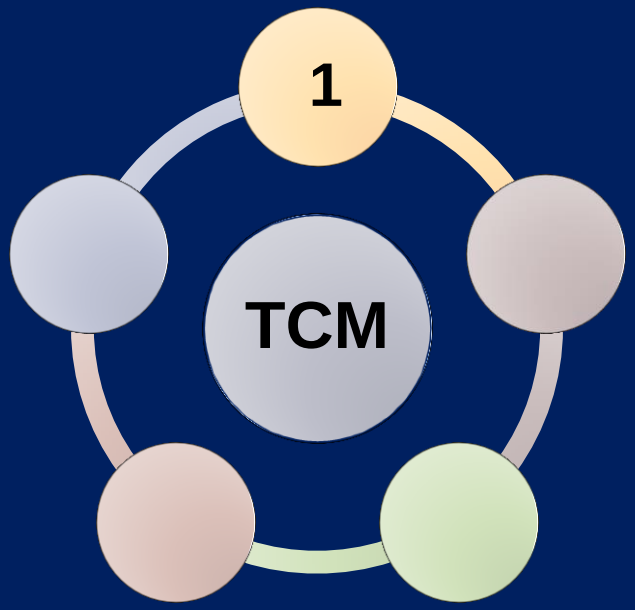
Core Components

- Holistic, person/family centered approach
- Nurse-coordinated, team model
- Protocol guided, streamlined care
- Single “point person” across episode of care
- Information/decision support systems that span settings
- Focus on increasing value over long term

(Hirschman et al. Continuity of Care: The Transitional Care Model. *OJIN: The Online Journal of Issues in Nursing,* 2015; 20(2):1. doi: 10.3912/OJIN.Vol20No03Man01)



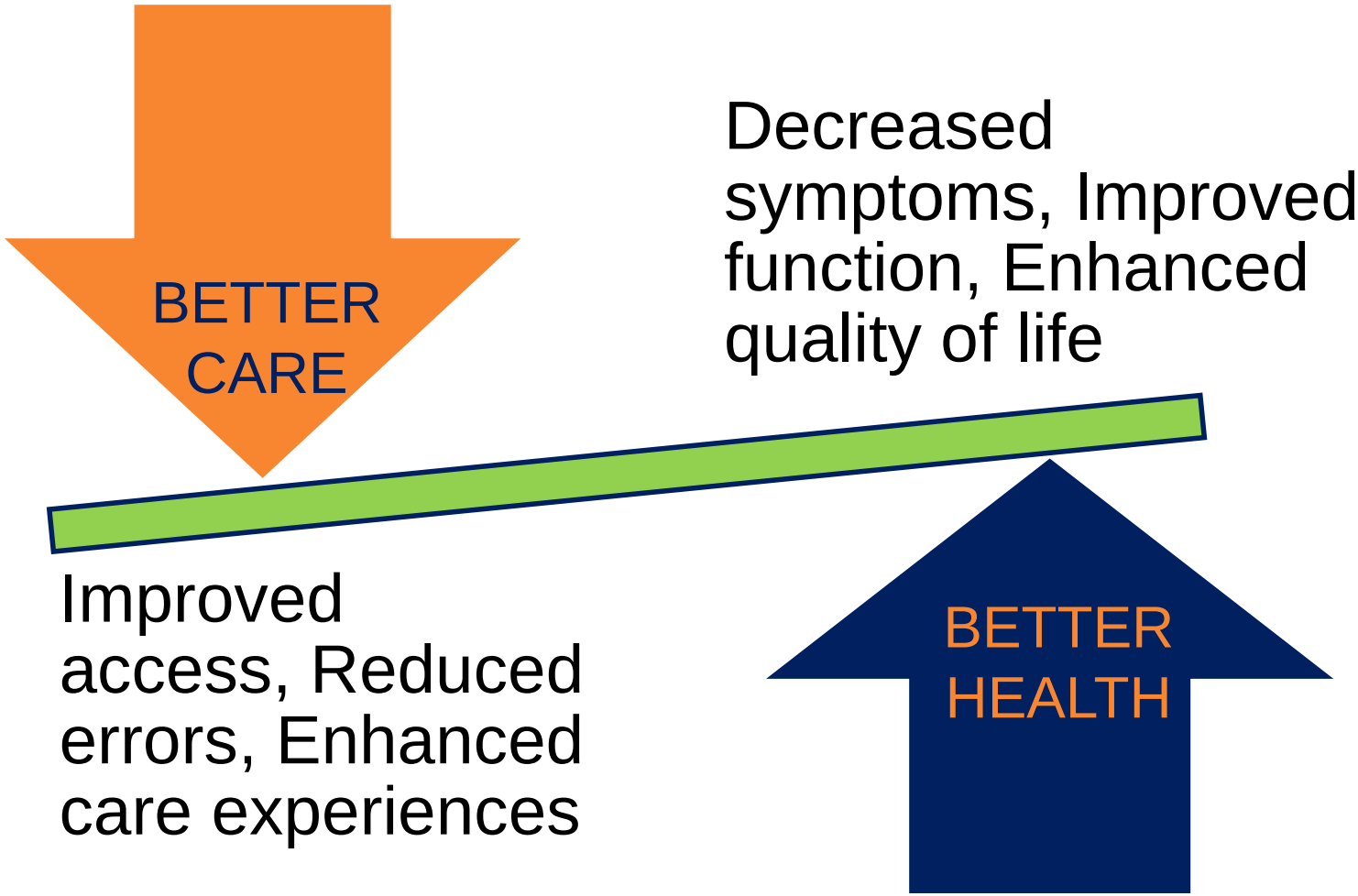
Lessons from Rigorous Evaluation of the TCM



In multiple NIH funded clinical trials, the TCM has consistently demonstrated observable health improvements among chronically ill older adults and reduced total costs of care

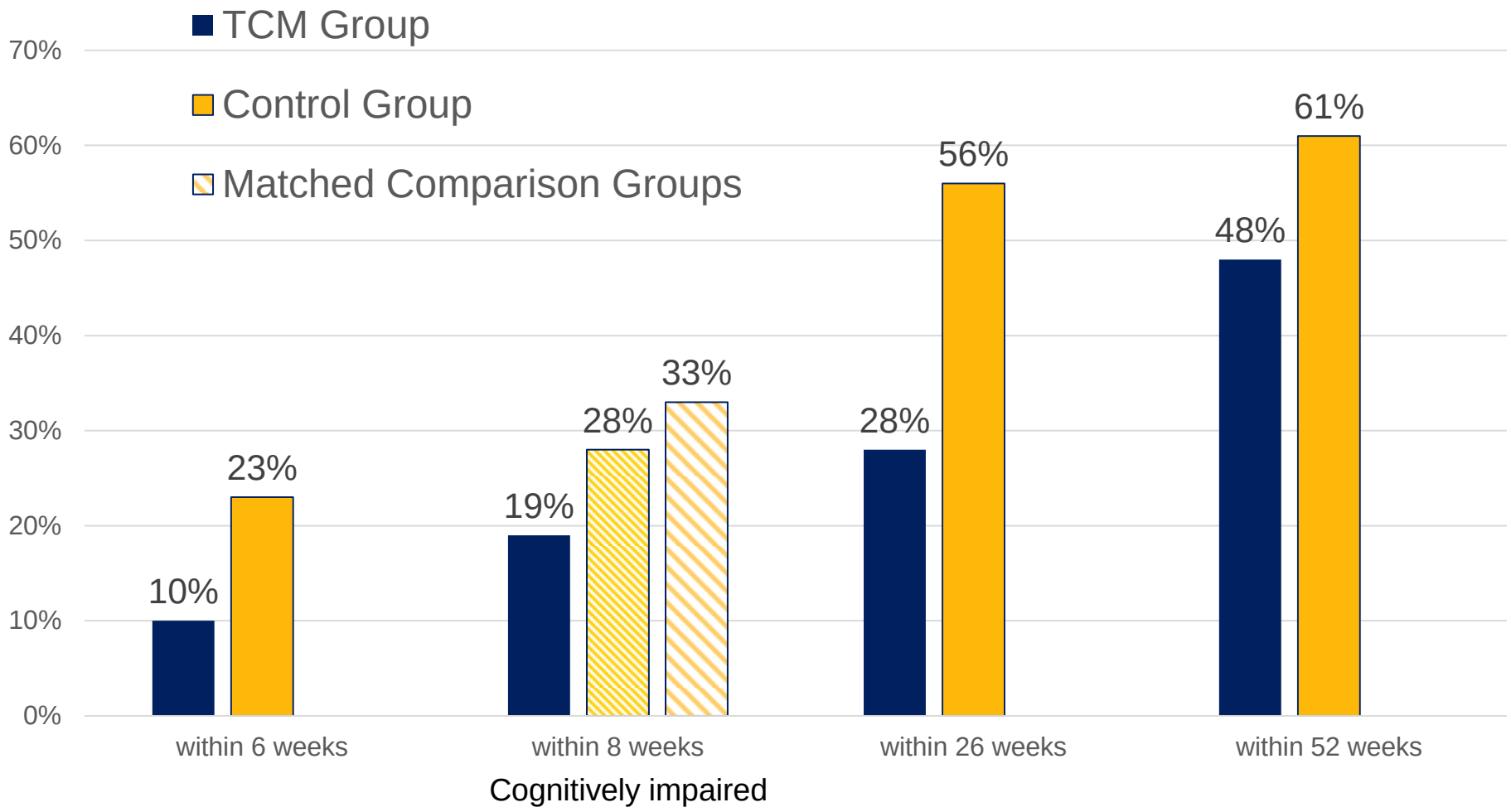
(Based on NIH funded RCTs: *Ann Intern Med*, 1994,120:999-1006; *JAMA,* 1999, 281:613-620; *J Am Geriatr Soc*, 2004, 52:675-684); and NIH funded CER: *J Comp Eff Res*, 2014, 3:245-257.)

Hospital to Home Findings*



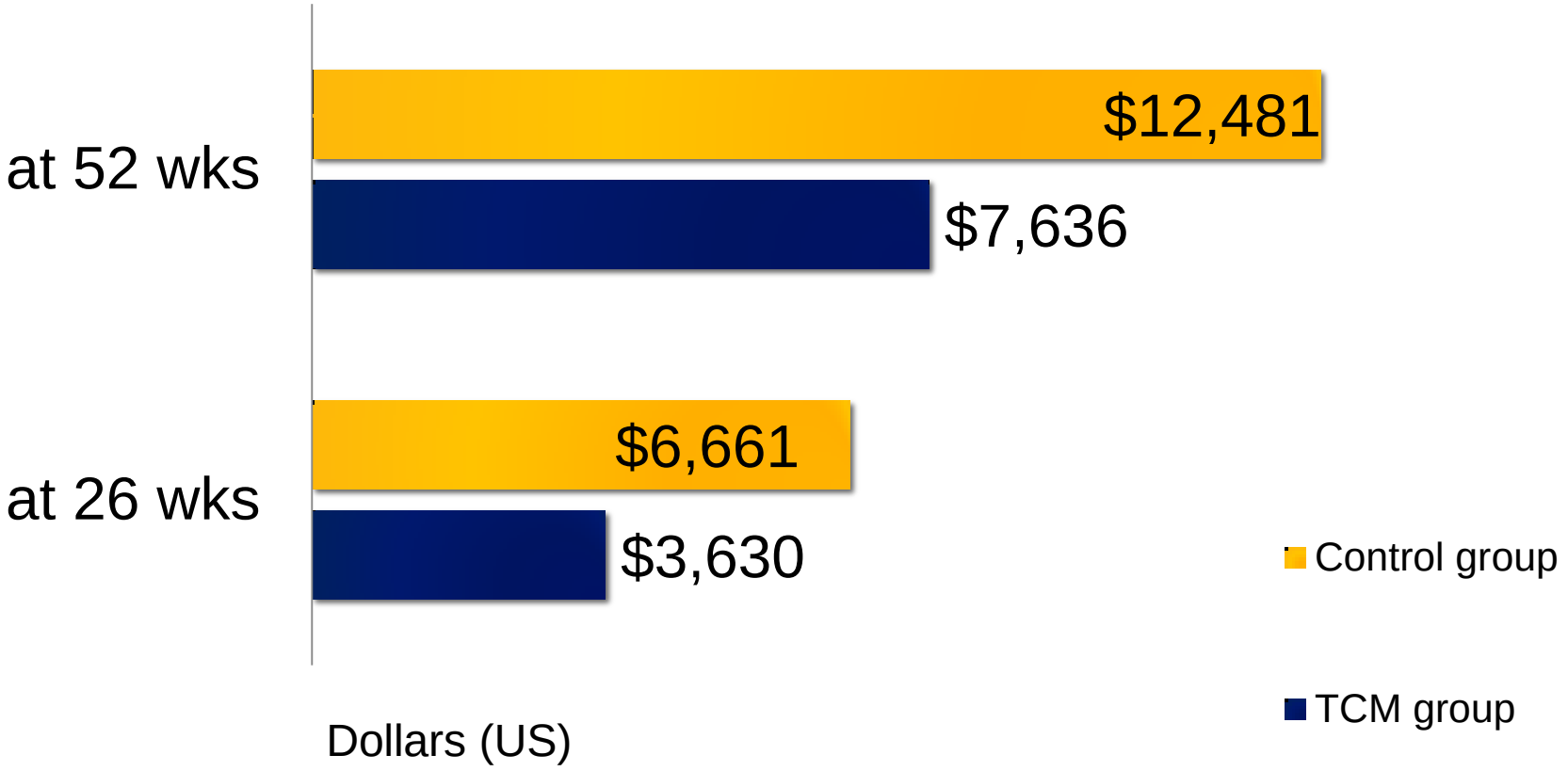
(* Based on 3 NIH funded RCTs: *Ann Intern Med*, 1994,120:999-1006; *JAMA,* 1999, 281:613-620; *J Am Geriatr Soc*, 2004, 52:675-684)

TCM's Impact on Rehospitalization Rates

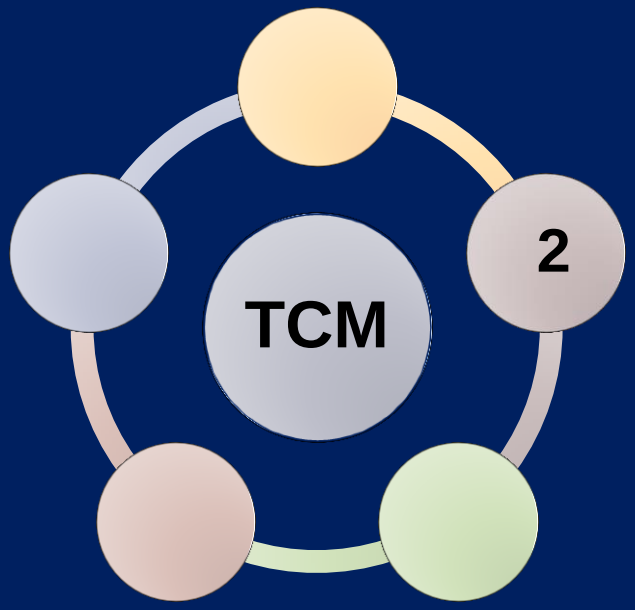


(Based on 3 NIH funded RCTs: *Ann Intern Med*, 1994,120:999-1006; *JAMA,* 1999, 281:613-620; *J Am Geriatr Soc*, 2004, 52:675-684; 1 NIH funded Comparative Effectiveness trial: Naylor et al., 2014, *J Comp Eff Res,* 3:245-257; McCauley et al., 2014, *Am J Nurs*, 114:44-52; Naylor et al., 2016, J Comp Eff Res, 5:259-72)

TCM's Impact on Total Health Care Costs*



(*Total costs were calculated using average Medicare reimbursements for hospital readmissions, ED visits, physician visits, and care provided by visiting nurses and other healthcare personnel. Costs for TCM care is included in the intervention group total. ***JAMA,* 1999, 281:613-620; ****J Am Geriatr Soc*, 2004, 52:675-684)



In NIH and foundation funded comparative effectiveness studies, the TCM has demonstrated improved health outcomes and reduced costs relative to other evidence–based interventions.

Funding:

Marian S. Ware Alzheimer Program,

and

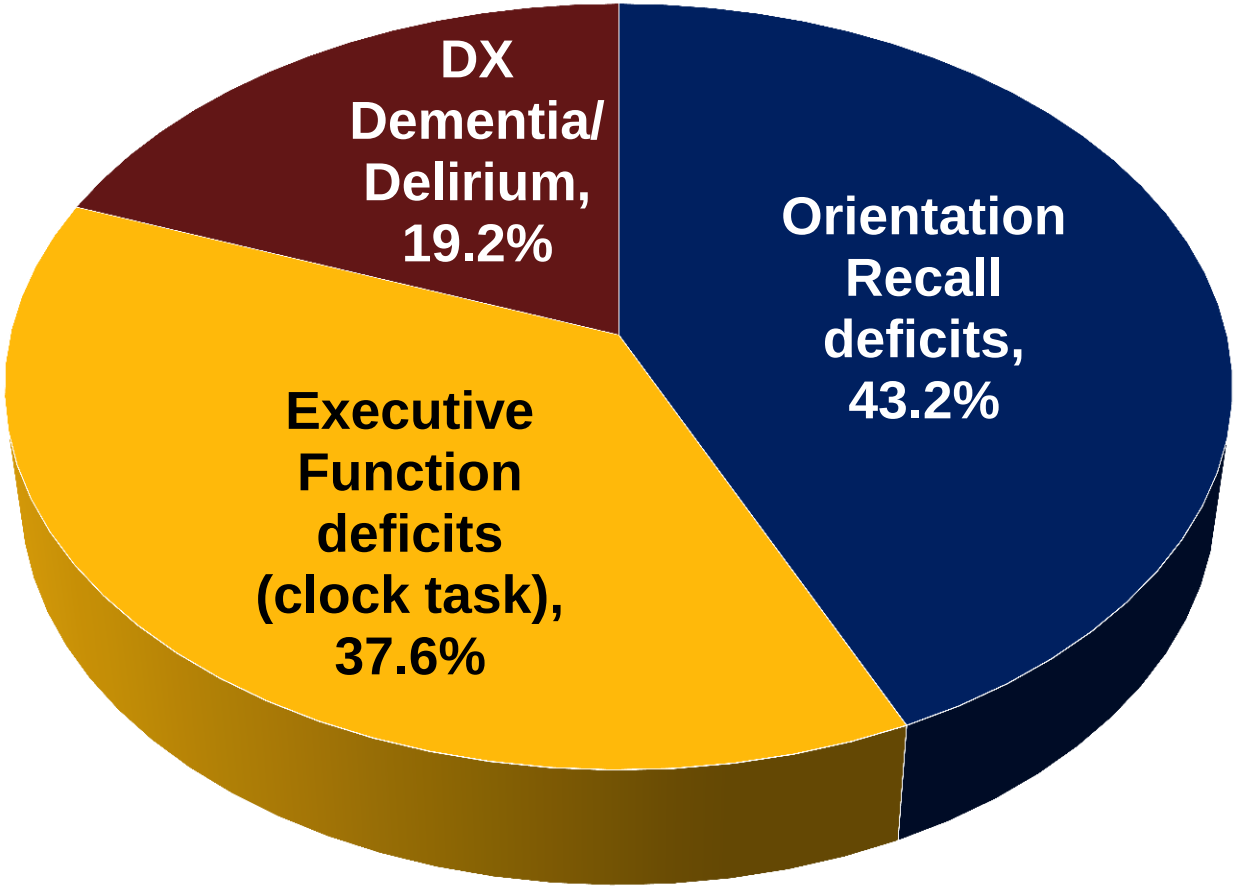
National Institute on Aging, R01AG023116,

(2005-2011)

Cognitively impaired hospitalized older adults and their caregivers have achieved increased benefits from TCM relative to other evidence-based solutions.

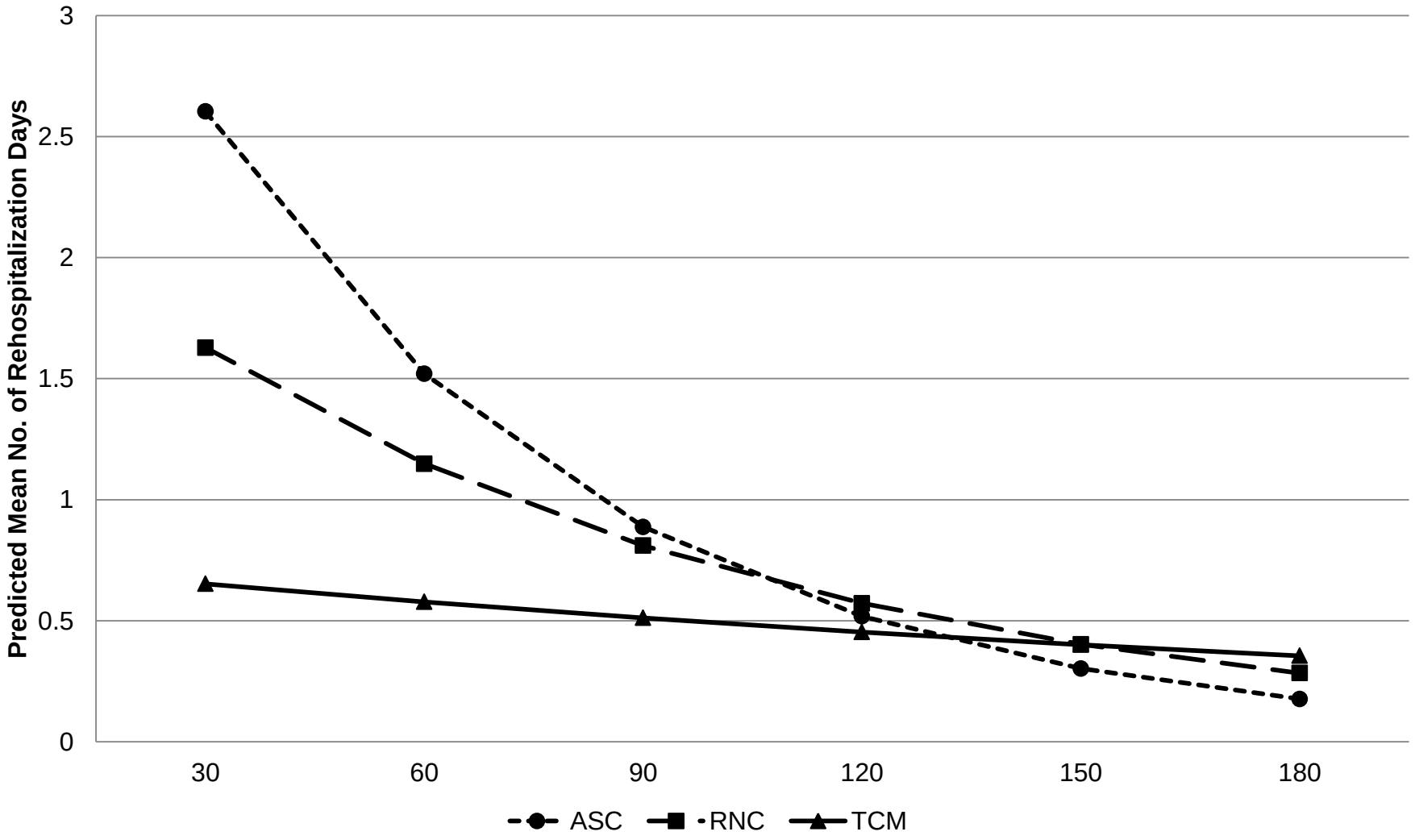
(Naylor et al., 2014, *J Comp Eff Res*, 3:245-257; McCauley et al., 2014. *Am J Nurs*, 114(10):44-52; Naylor et al., 2016, *J Comp Eff Res*, 5:259-72.)

Cognitive Deficits at Baseline



24.9% also had delirium (+ Confusion Assessment Method)

Mean No. of Rehospitalization Days Through Six Months (N=407)



Funding:

Gordon and Betty Moore Foundation, Rita and Alex Hillman Foundation and the Jonas Center for Nursing Excellence

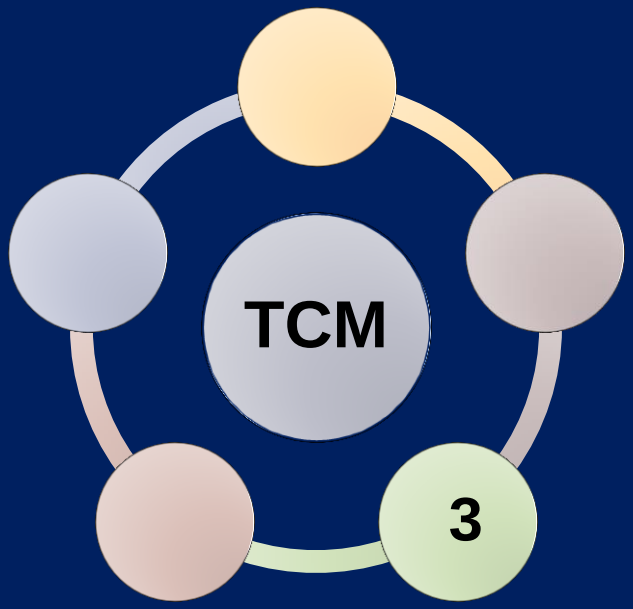
(2011-2014)

The integration of the TCM within the Patient Centered Medical Home (PCMH) suggests improved outcomes for chronically ill older adults.

(Naylor et al., 2013. *J Comp Effect Res,* 2(5):457-468; Hirschman et al., 2015, *J Healthcare Quality, APR 9 epub ahead of print*.)

Findings PCMH+TCM Study

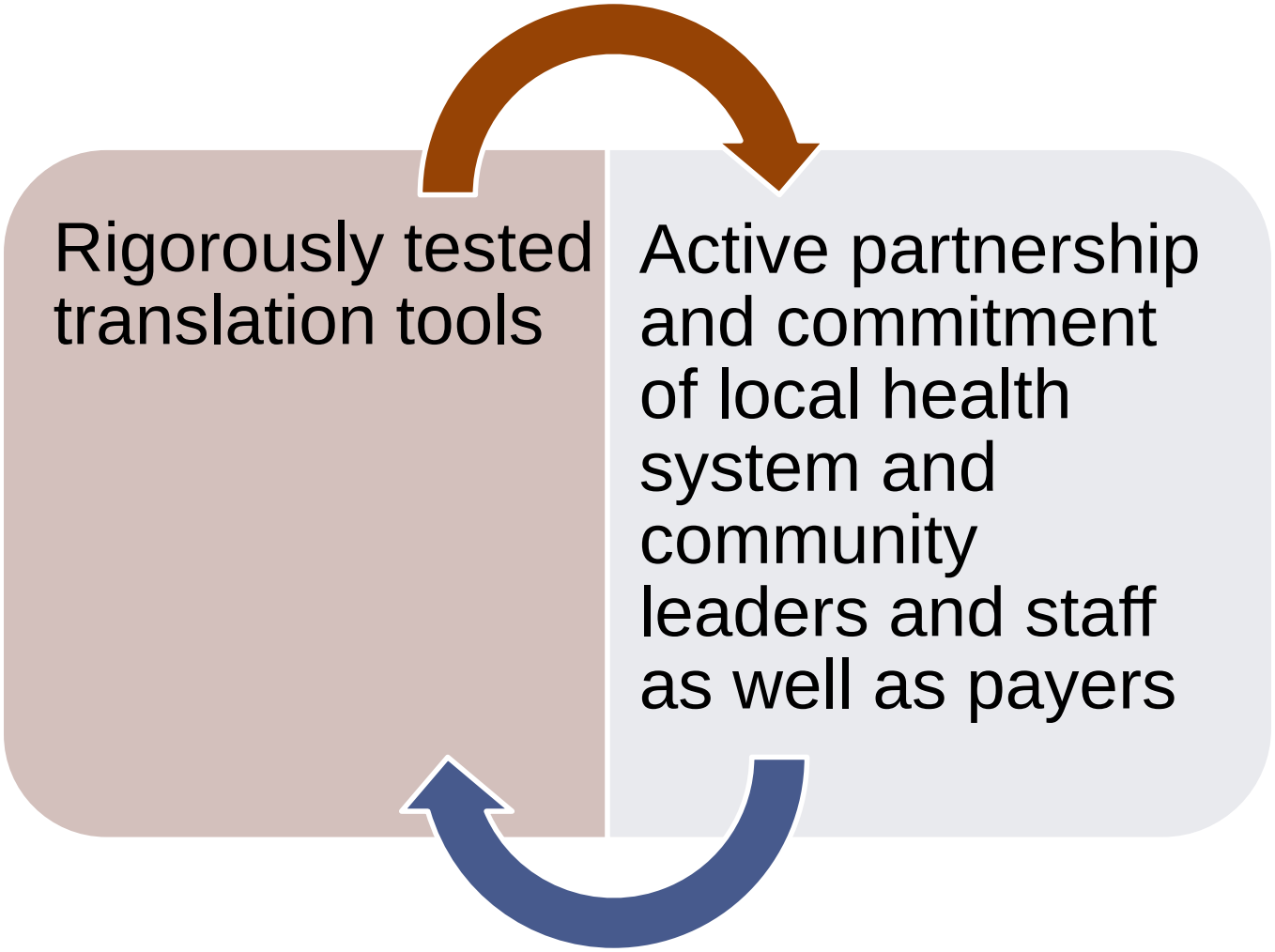
- When compared to outcomes demonstrated by a PCMH only group, the PCMH+TCM group demonstrated:
  - improved emotional health and quality of life
  - increased time to first rehospitalization or death



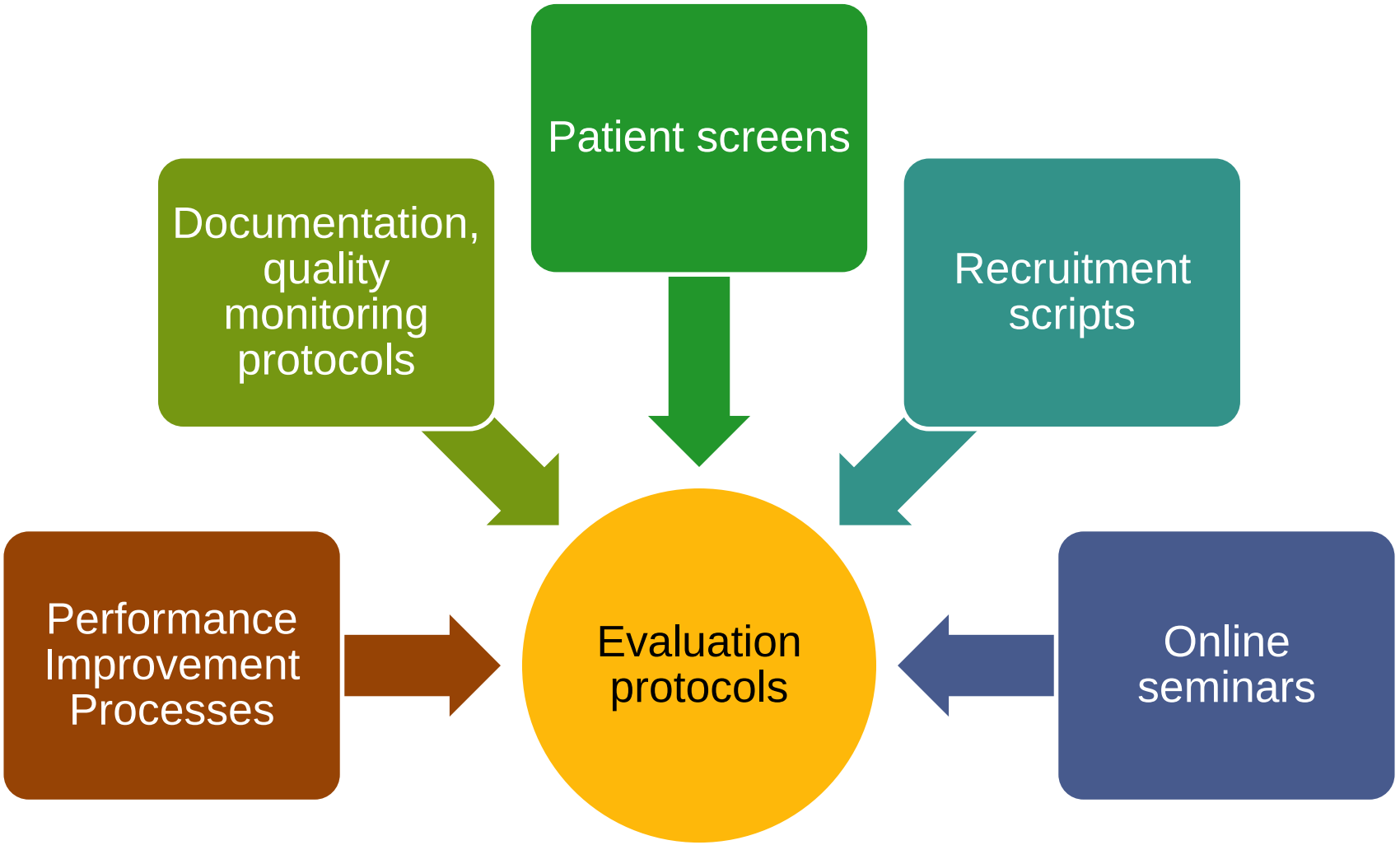
Replication of TCMs clinical and economic outcomes has been demonstrated in diverse health systems and communities.

Translational research projects funded by The Commonwealth Fund and the Jacob and Valeria Langeloth, The John A. Hartford, Gordon & Betty Moore, and California HealthCare foundations; each guided by a National Advisory Committee (NAC); service line supported by local payers.

Success requires both…



We built and tested translation tools



We demonstrated success in translation with UPHS and Aetna (CER)

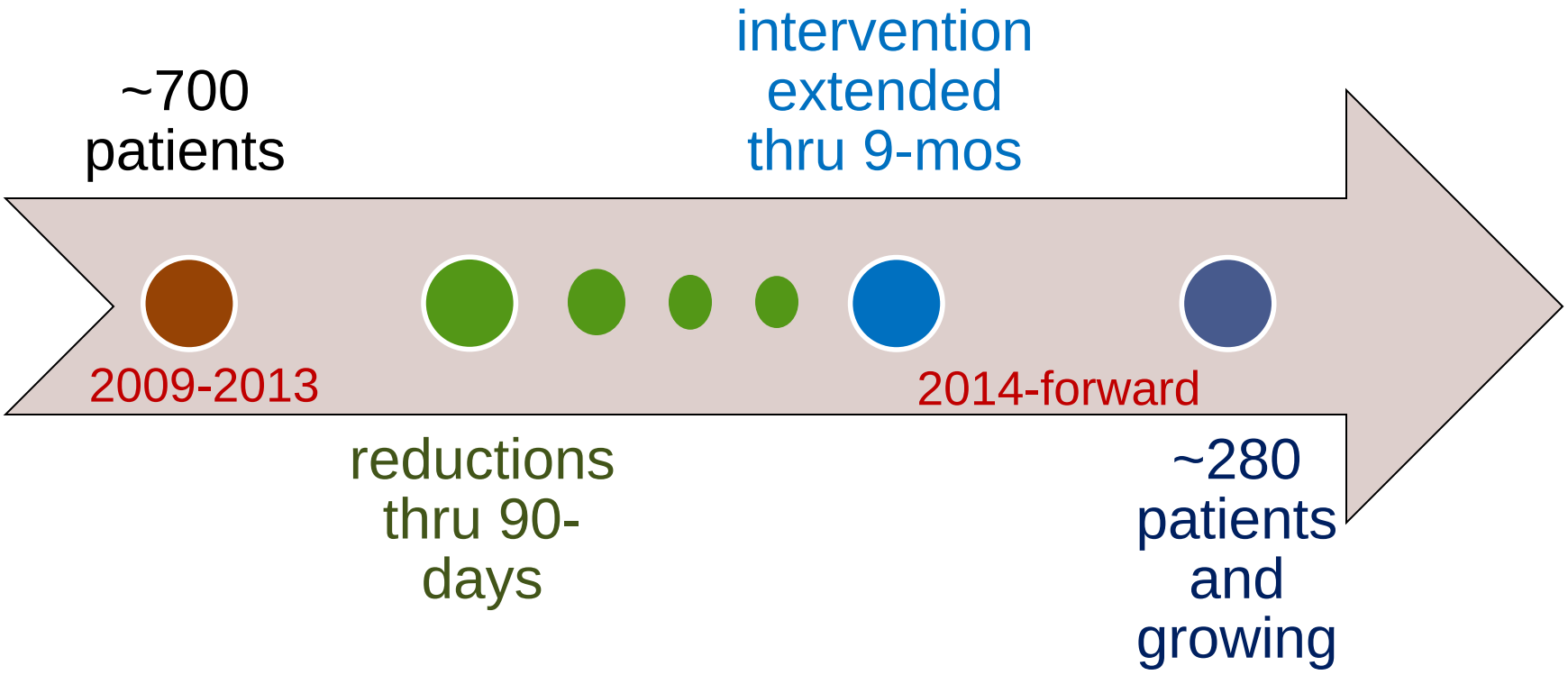
- Improved quality metrics
- Enhanced patient experience with care and physician satisfaction
- Reduced rehospitalizations through 3 months
- Cost savings through one year
- All significant at $p<0.05$

(Naylor et al. *J Eval Clin Pract, 2013, 19(5):727-33.* doi: 10.1111/j.1365-2753.2011.01659.x.)

UPHS currently operates a TCM service line

- Located within Penn Home Care and Hospice Services
- Reimbursed by local payer using case rate with defined performance expectations
- Implemented using a learning health system framework that has enabled ongoing improvements

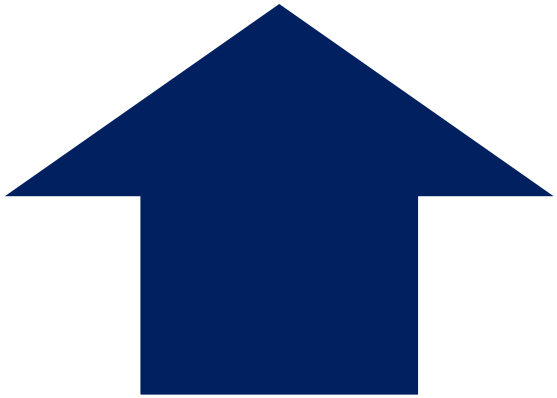
Findings suggest TCM within UPHS is working and continually improving



Patient Outcomes Over Time (2/1/2014-2/29/2016)

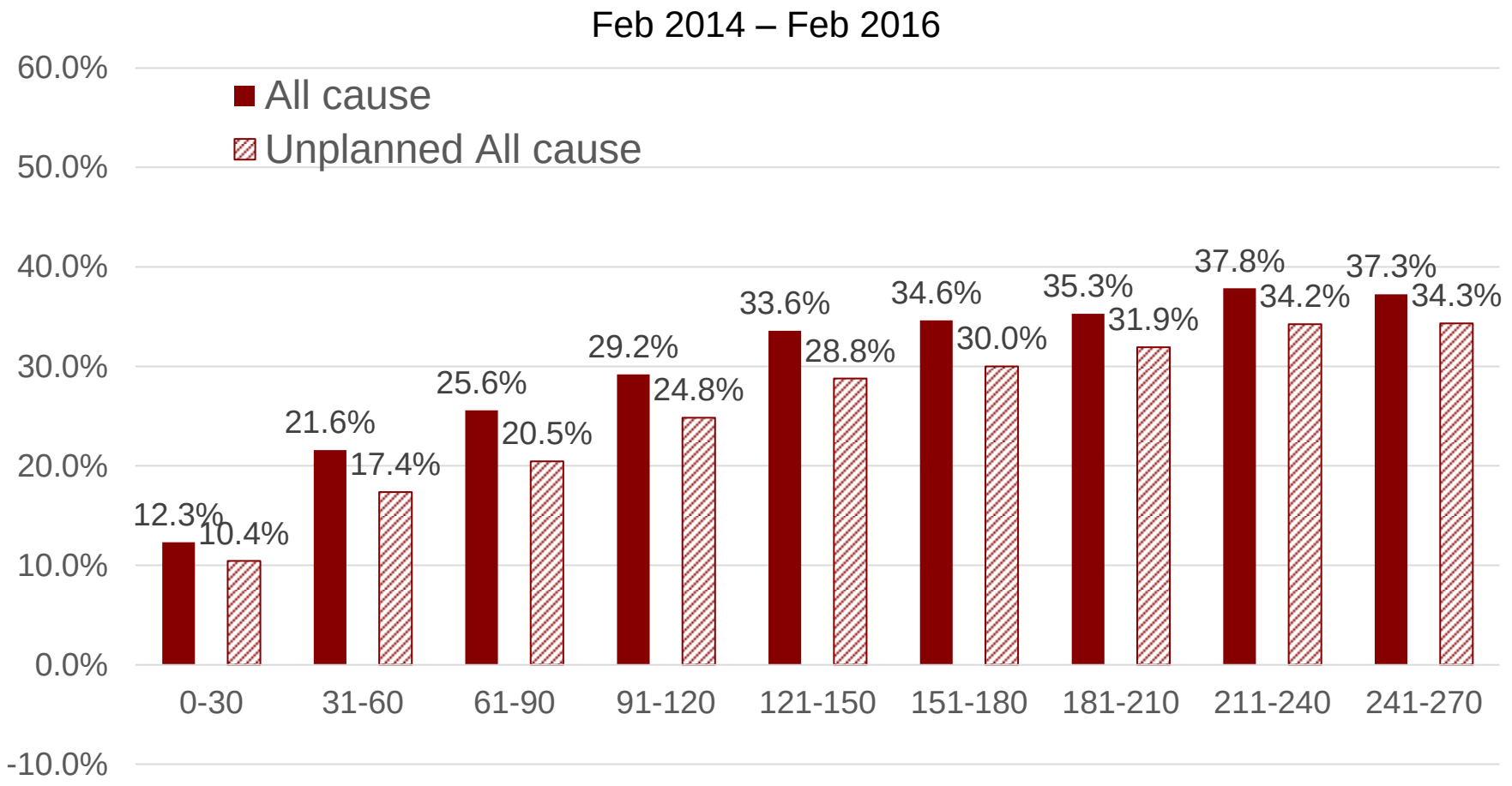
Improved quality of life, physical function, instrumental ADLs*, and cognitive status*

Fewer symptoms, less pain, lower ratings of depressive symptoms and anxiety



All statistically significant at p<0.001 unless noted. * p=0.02

Number of Members with at Least One Readmission in Post-Index Discharge Time Period



* Members hospitalized with CHF, diabetes, anticoagulation, COPD, CAD/CABG

Funding:

Robert Wood Johnson Foundation (2014-2016)

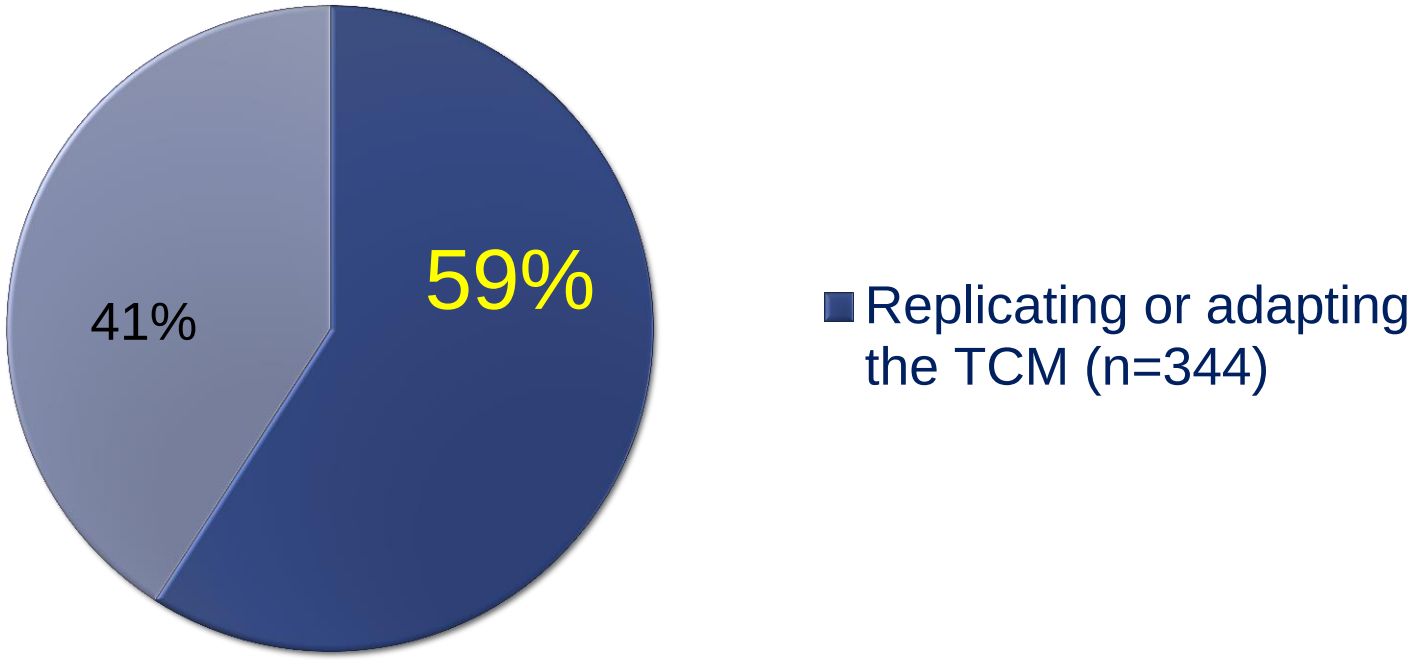
Local Adaptations of the *Transitional Care Model*

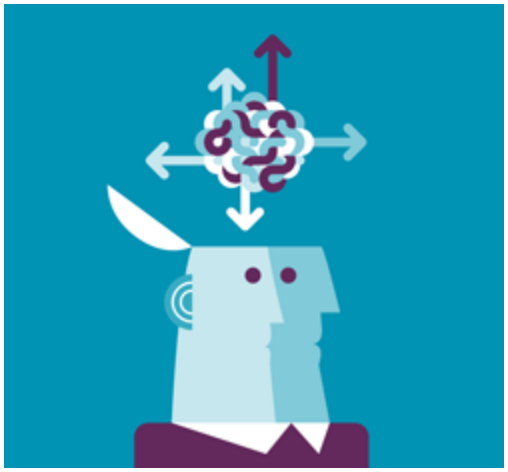
Study Goals

- Identify key motivations for implementation of evidence-based transitional care services (Phase I)
- Among sites using TCM, determine if and how any of the TCMs nine core components have been adapted (Phase I)
- Conduct interviews (complemented by site visits) to gain indepth information regarding the nature and rational for adaptations (Phase II)

Phase I

National Survey of Health Systems (N=582)





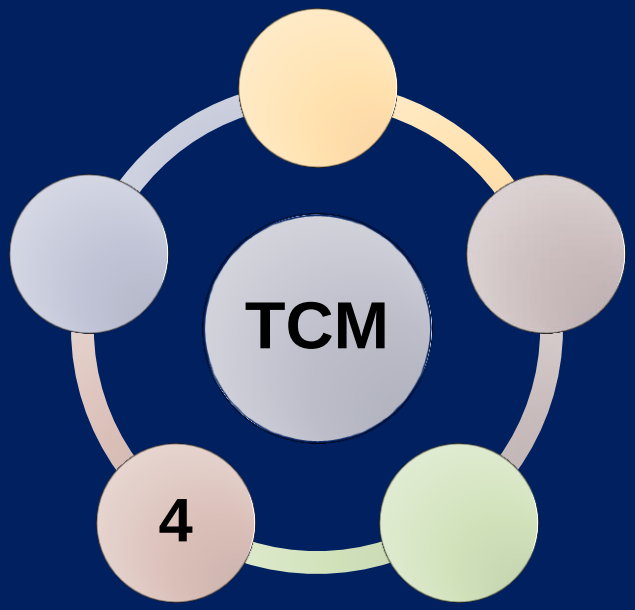
Funding:
Robert Wood Johnson Foundation
(2015-2016)

Use of Policy Simulation in Making Decisions to Implement the *Transitional Care Model*

In partnership with the Stevens Institute of Technology

Project Aims

- Determine if policy simulator accelerates positive decisions to implement the TCM
- Incorporate perspectives of diverse end-users in design
- Develop and validate simulator
- Assess end-users' decisions



We still have a great deal to learn regarding transitional care practices that align with the changing needs of older adults.

Funding:

National Institute on Aging, National Institute of Nursing Research, R01AG025524, (2006-2011)

Improving care transitions among older adults who receive long-term services and supports is central to achieving ‘value’ but measurement and interventions must be grounded in what matters to care recipients.

(Zubritzky et al. *Gerontologist, 2013;* 53(2):205-10; Naylor et al. *J Am Med Dir Assoc*, 2016; 17(1):44-52.)

Health Related Quality of Life

- Longitudinal study of 470 English and Spanish speaking older adults receiving long-term services and supports
- Asking these frail elders how they define “quality of life”
- Mapping how this vulnerable group currently uses both health and long-term services

Project ACHIEVE

Achieving Patient Centered Care and Optimized Health In Care Transitions by Evaluating the Value of Evidence

Funding:

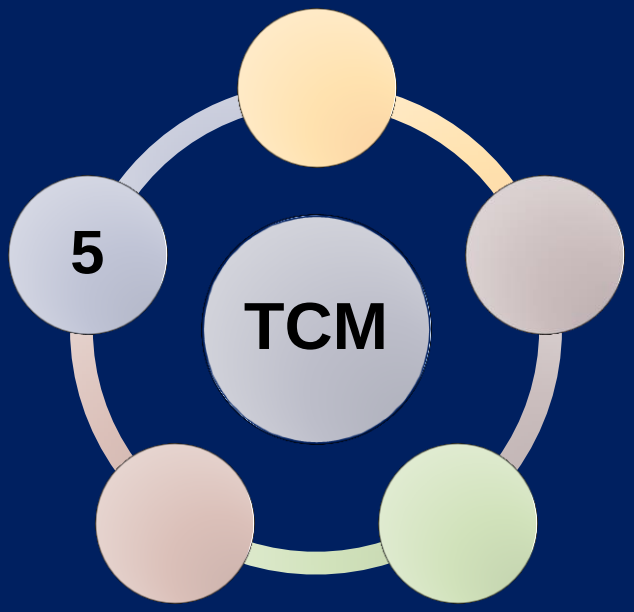
Patient-Centered Outcomes Research Institute

(2015-2018)

- Multi-site study (Penn is one of lead sites)

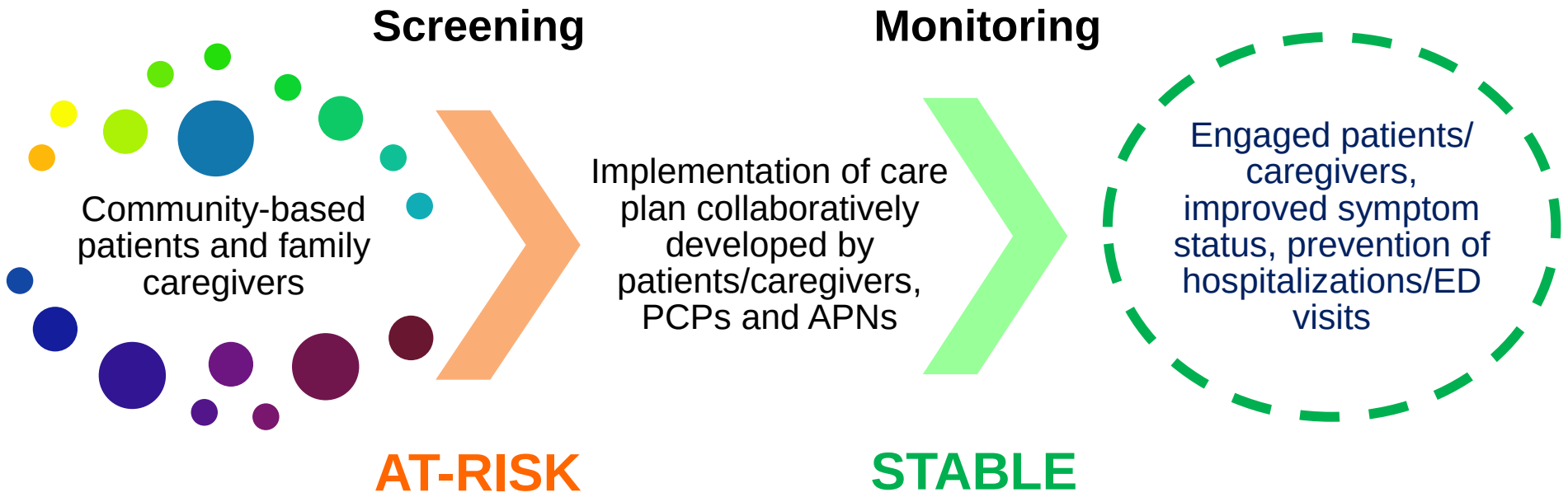
http://www.pcori.org/research-results/2014/project-achieve-achieving-patient-centered-care-and-optimized-health-care

(Li et al. *BMC Health Serv Res, 2016*; 16(1):70. doi: 10.1186/s12913-016-1312-y.)



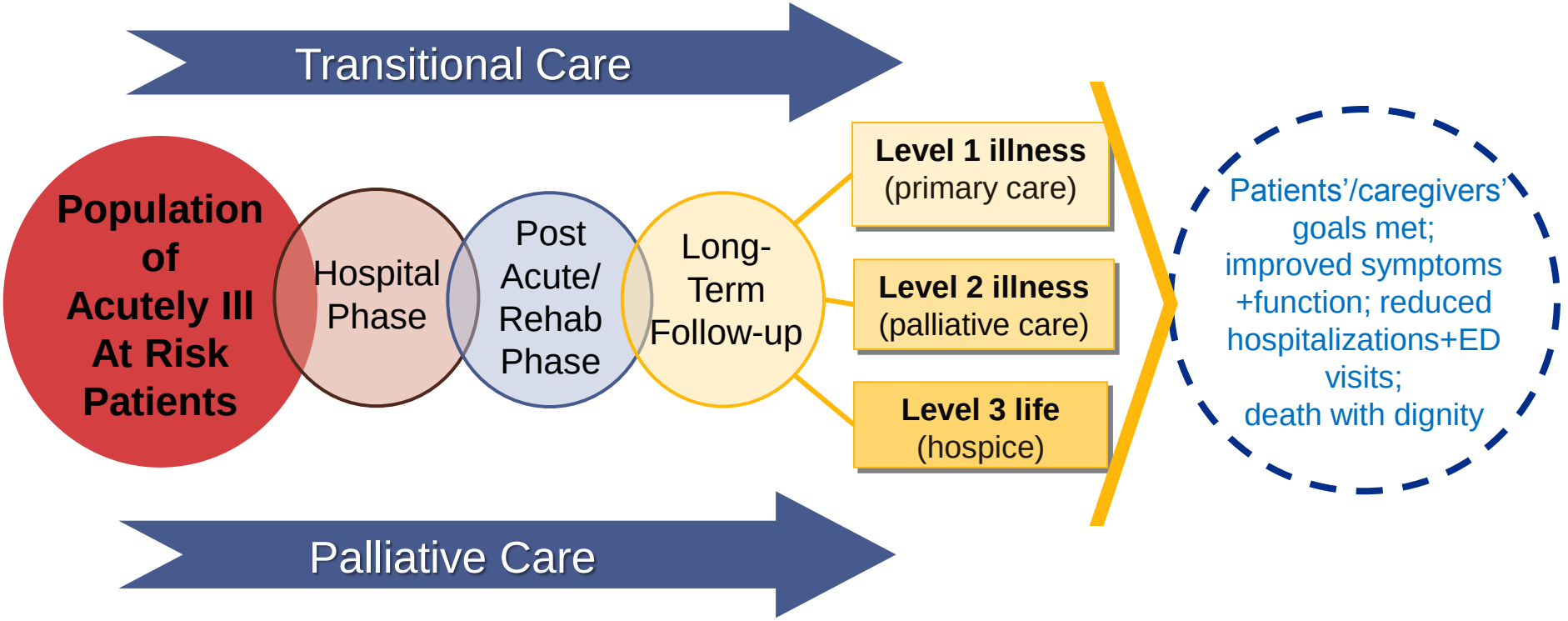
Findings from TCMs body of evidence suggest the need for a re-envisioned care delivery strategy for at risk chronically ill adults.

Upstream: Primary Care + TCM Strategy for "At Risk" Chronically Ill Adults



(Gordon and Betty Moore Foundation, Rita and Alex Hillman Foundation, and the Jonas Center for Nursing Excellence, 2011-2014)

Downstream: Acute Care Strategy for "At Risk" Chronically Ill Older Adults



The TCM…

- Focuses on transitions of at-risk cognitively intact and impaired chronically older adults across all settings
- Has been “successfully” translated into practice
- Has been recognized by the Coalition for Evidence-Based Policy as an innovation meeting “top-tier” evidence standards
- Will result (hypothesis currently being tested) in greater health care value if integrated as a population health approach

Key Lessons

- Solving complex problems will require multidimensional solutions
- Evidence is necessary but not sufficient
- Change is needed in structures, care processes, and health professionals' roles and relationships to each other and the people they support
- *Carpe Diem*!

Getting Patients Back on Their Feet Faster

Study Says Care Before and After Discharge From the Hospital Saves Money, Spurs Recovery

By Judy Light
Special to The Washington Post

Clifford Lynd Sr. is breathing easier these days. In the heat of the summer, he's feeling strong enough to paint a booster chair he built for his great-granddaughter. "I can always find something to do," said Lynd, a 79-year-old retired meat cutter who lives in Philadelphia. "I have lawn chairs that need new webbing, and I'm refinishing an end table for my grandson."

Lynd would have had trouble tackling these projects a year ago. In July 1998, he was hospitalized with congestive heart failure. He was readmitted in September. "The last time I went in, I had been to church on Sunday morning. I stopped by to see my youngest daughter, who is our family doctor's office manager. When she saw that I could hardly breathe—my lungs were filled up with so much fluid I was panting—she took me right to the hospital."

Congestive heart failure is a chronic debilitating disease. Typically, patients like Lynd are in and out of the hospital. They suffer fatigue, shortness of breath, fluid buildup in their lungs, sleeplessness. The heart muscle is weakened, unable to do its job pumping blood to the lungs and through the rest of the body.

Without proper care, Lynd's condition would have deteriorated. But he was able to take advantage of a research project at the University of Pennsylvania School of Nurs-

BY BARBARA JOHNSTON FOR THE WASHINGTON POST

Clifford Lynd Sr. says the home care he received after hospital treatment for congestive heart failure enabled him to resume tackling projects in his garage workshop.

that patients who received intensive at-home follow-up did significantly better. Compared to a control group that received standard discharge care, the patients receiving intervention by trained professionals had fewer readmissions to the hospital, saving Medicare an average of $3,000 per patient during the six months after their original admission.

The study depended on "advanced practice" nurses with training in geriatrics to assess the patients' physical, emotional and social condition in the hospital and determine what support services would be needed at home.

Collaborating with physicians, family members and other health professionals, the nurses designed individual discharge plans for every patient. They taught patients and the people who would be involved in their care at home about prescribed medications and dietary requirements. They recommended levels of exercise and activity and made follow-up medical appointments. They pointed out potential symptoms and early warning signs of complications that might occur.

Home visits were an integral part of the program. The program's nurses were also available by telephone. All in all, they acted as the go-between for patients and the rest of the medical community. They talked to the patients' doctors when questions or problems arose. They helped patients enroll in supplemental insurance plans and arranged for additional in-home care services. They also found support services for the patients'