

# Leveraging Technology to Support Safer Transitions of Care



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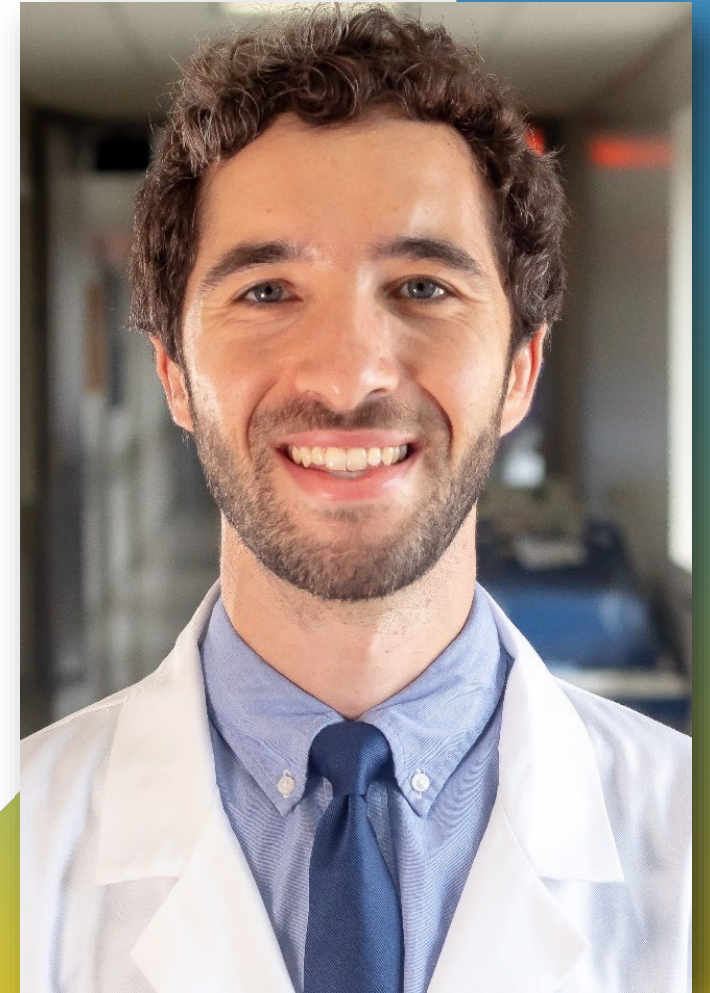
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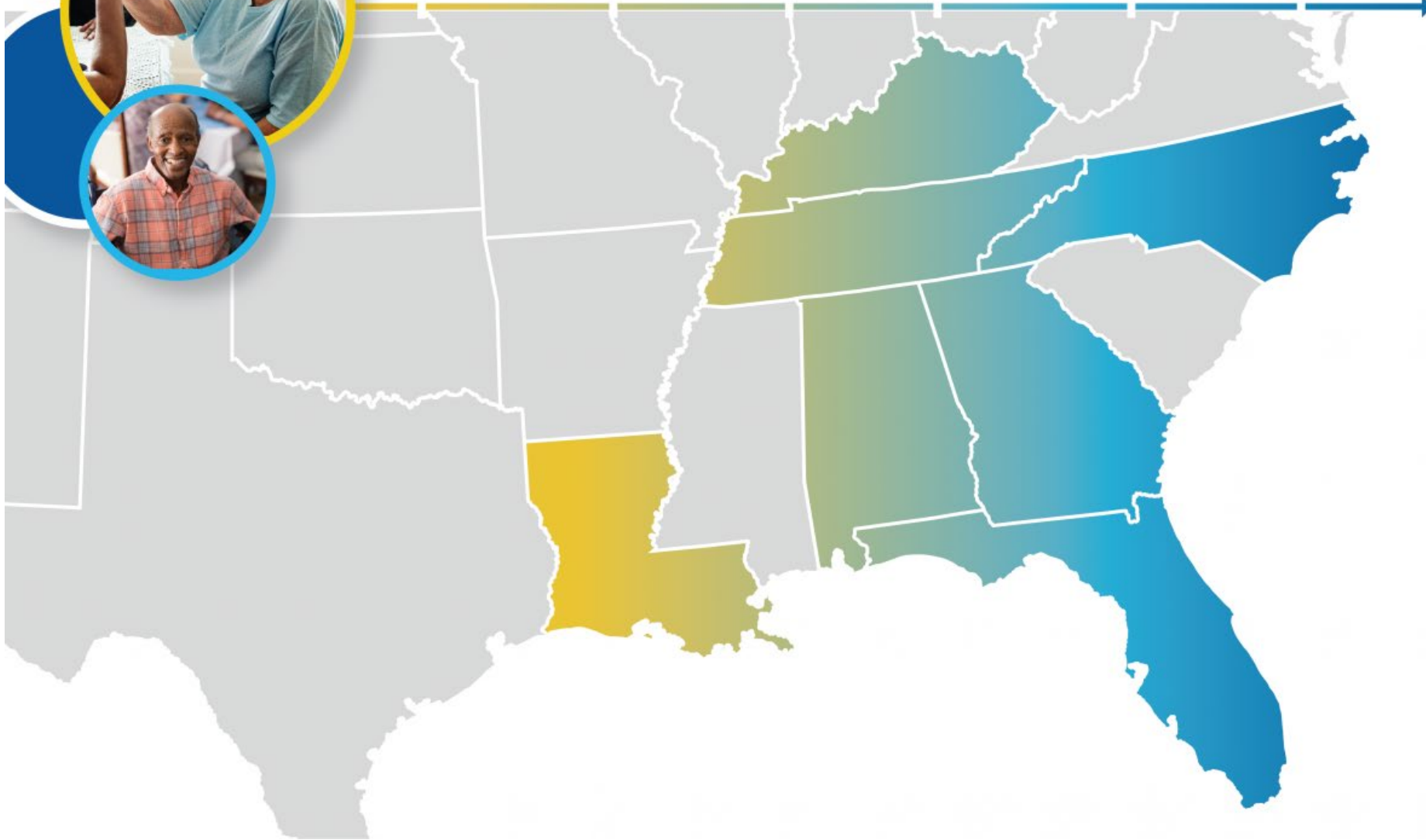
# Eric Bressman, MD, MSHP

**FELLOW, NATIONAL CLINICIAN SCHOLARS PROGRAM  
UNIVERSITY OF PENNSYLVANIA  
CORPORAL MICHAEL J. CRESCENZ VA MEDICAL CENTER**

Dr. Eric Bressman is an internist, VA Scholar and NCSP Scholar interested in examining the impact of Medicare policy and health system initiatives targeted at keeping patients out of the hospital, with a particular focus on innovation surrounding transitions of care.



# Making Health Care Better *Together*



About Alliant Health Solutions



# Leveraging Technology to Support Safer Transitions of Care

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National Clinician  
Scholars Program

**VA**



U.S. Department  
of Veterans Affairs



**Penn**  
UNIVERSITY of PENNSYLVANIA

# A Fragmented System

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*A 70-year-old female with heart failure and chronic kidney disease...*



# Transitions of Care

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# Transitions of Care: An Evolving Challenge

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- Decreasing lengths of stay
- Rise of hospital medicine
- Shifting incentives
  - Growth of managed care
  - Readmission penalties

# Transitions of Care

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- Decreasing lengths of stay
- Rise of hospital medicine
- Shifting incentives

JAMA  
Network | **Open**

**Original Investigation** | Health Policy



November 30, 2021

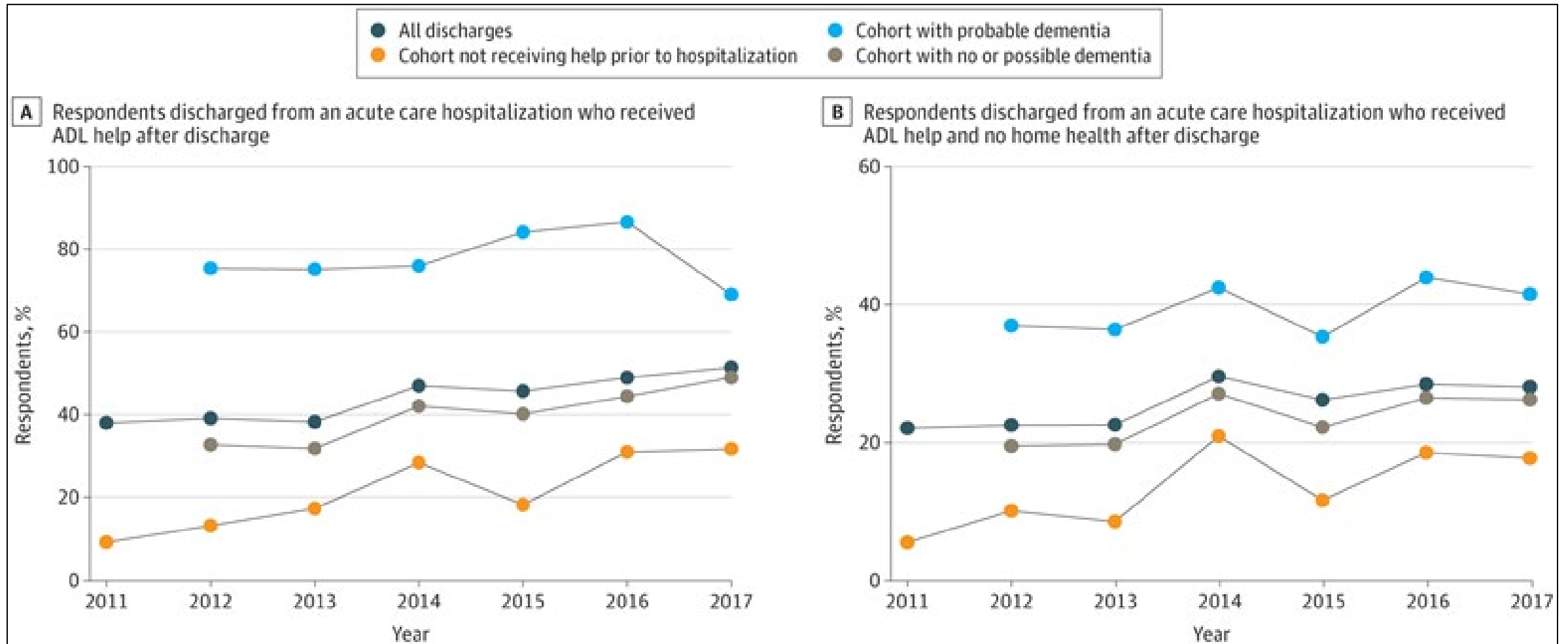
## **Trends in Receipt of Help at Home After Hospital Discharge Among Older Adults in the US**

Eric Bressman, MD<sup>1,2,3</sup>; Norma B. Coe, PhD<sup>1,4</sup>; Xinwei Chen, MS<sup>1,2</sup>; R. Tamara Konetzka, PhD<sup>5,6</sup>; Rachel M. Werner, MD, PhD<sup>1,2,3</sup>

*Bressman et al., JAMA Netw Open. 2021;4(11):e2135346*



# Increase in Needs at Home



# Connected Care

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Virtual care



Mobile health



Remote patient monitoring



# Connected Care

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# Automation and Digital Support

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## Question

- Can we use automated hovering to help taper the post-discharge cliff drop in medical supervision?

## Hypothesis

- Automating outreach will
  - Scale up touchpoints
  - Distill down to substantive interactions
  - Earlier identification of needs
- Using text message will
  - Increase engagement
  - Lower barriers to communication

# TCM+: A 30-Day Post-Discharge Program

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- Aim 1: To design, test and demonstrate the feasibility of a 30-day post-discharge automated texting intervention.
- Outcomes:
  - Program completion rate
  - Rate of response
  - Escalations
  - Net promoter score
- Aim 2: To evaluate the clinical effectiveness of the 30-day automated texting intervention.
- Outcomes:
  - Primary: 30-day acute care use (composite measure)
  - Secondary: 30-day ED visits and readmissions (analyzed separately)



# TCM+: A 30-Day Post-Discharge Program

## Pilot

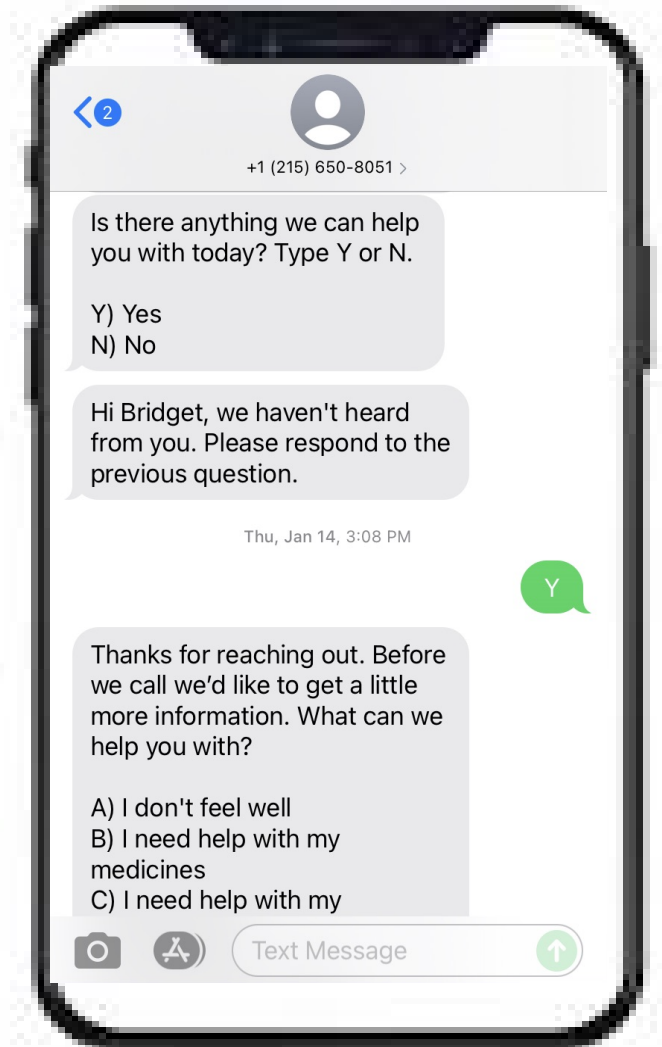
- February-August 2021
- Practice in Center City Philadelphia

## Communication

- Automated text messages sent on a tapering schedule over 30 days
- Received follow-up call for any needs

## Staff

- Inbound messages (escalations) handled by the care manager (RN)
- Other staff (PCP, pharmacist, social work) looped in as needed



# TCM+: A 30-Day Post-Discharge Program

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# Methods

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- Difference-in-differences analysis
- Control
  - Pre-selected clinic housed in the same building, similar staffing structure and patient population
  - Robustness check: compared against 5 additional city practices
- Covariates
  - Demographic: age, sex, race/ethnicity, insurance payer
  - Clinical: readmission risk score, Charlson Comorbidity Index, length of hospital stay

# TCM+: A 30-Day Post-Discharge Program

JAMA  
Network | **Open**

**Original Investigation** | Health Policy



October 26, 2022

## **Evaluation of an Automated Text Message-Based Program to Reduce Use of Acute Health Care Resources After Hospital Discharge**

Eric Bressman, MD, MSHP<sup>1,2,3</sup>; Judith A. Long, MD<sup>1,2,3</sup>; Katherine Honig<sup>1</sup>; Jarcy Zee, PhD<sup>4,5</sup>; Nancy McGlaughlin, RN<sup>6</sup>; Carlondra Jinter, MSN, RN<sup>6</sup>; David A. Asch, MD, MBA<sup>1,2,7</sup>; Robert E. Burke, MD, MS<sup>1,2,3</sup>; Anna U. Morgan, MD, MSc, MSHP<sup>1,2</sup>

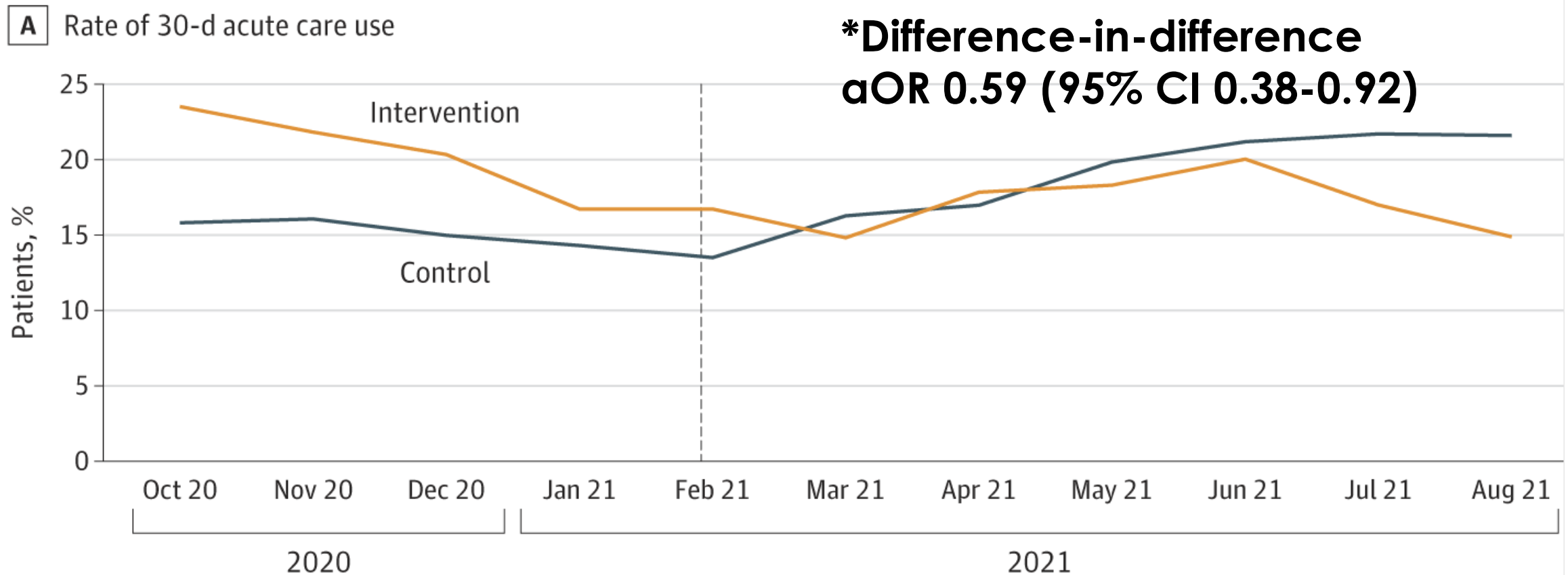
# Feasibility and Acceptability

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Outcome	Finding
Program completion rate	87%
Rate of response	83%
Escalations	1.4 per day
Net Promoter Score	+67

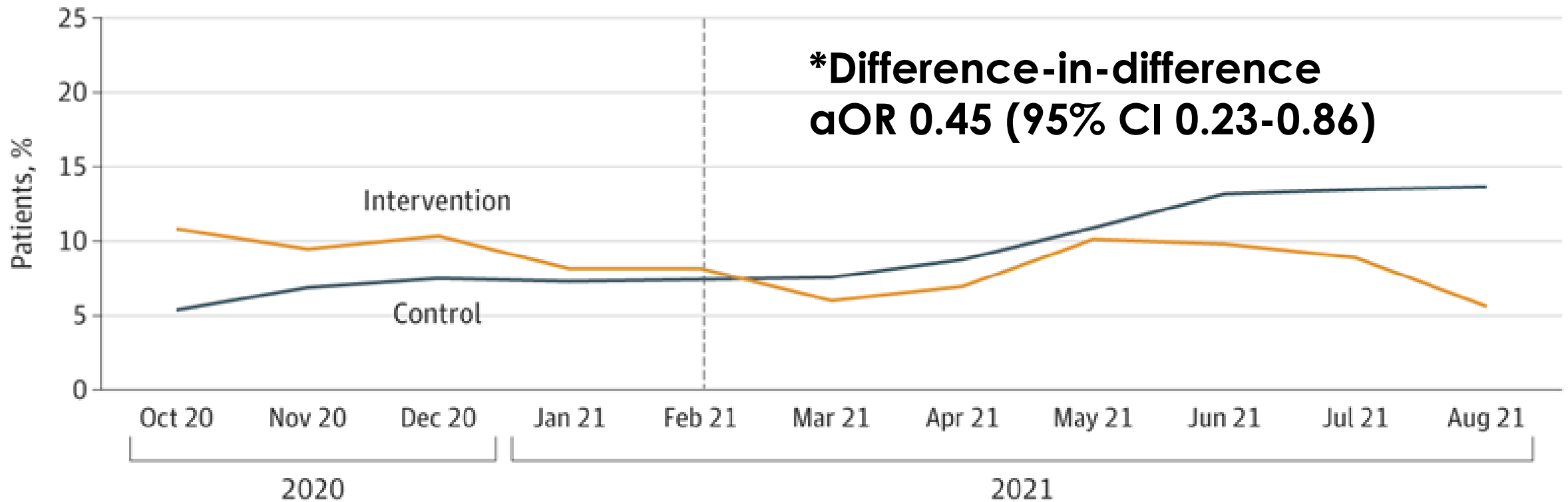


# Clinical Outcomes



# Clinical Outcomes

**C** Rate of 30-d readmissions



# Ongoing Work – TCM+

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- Qualitative work
  - Content analysis of escalations during the pilot study
    - How do patients use this type of program?
    - What are the most common needs that arise?
    - What mediated the large effect seen?
- Randomized controlled trial
  - 30 practices, 5000 patients
  - Just finished enrollment

# Questions?

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# Nursing Home and Partnership for Community Health: CMS 12th SOW GOALS



## OPIOID UTILIZATION AND MISUSE

- Promote opioid best practices
- Reduce opioid adverse drug events in all settings



## PATIENT SAFETY

- Reduce hospitalizations due to c. diff
- Reduce adverse drug events
- Reduce facility acquired infections



## CHRONIC DISEASE SELF-MANAGEMENT

- Increase instances of adequately diagnosed and controlled hypertension
- Increase use of cardiac rehabilitation programs
- Reduce instances of uncontrolled diabetes
- Identify patients at high-risk for kidney disease and improve outcomes



## CARE COORDINATION

- Convene community coalitions
- Reduce avoidable readmissions, admissions to hospitals and preventable emergency department visits
- Identify and promote optimal care for super utilizers



## COVID-19

- Support nursing homes by establishing a safe visitor policy and cohort plan
- Provide virtual events to support infection control and prevention
- Support nursing homes and community coalitions with emergency preparedness plans



## IMMUNIZATION

- Increase influenza, pneumococcal, and COVID-19 vaccination rates



## TRAINING


- Encourage completion of infection control and prevention trainings by front line clinical and management staff



# Scan the QR codes or Click the Links to Complete the Assessment!

CMS requested Alliant Health Solutions, your QIN-QIO, to work with select nursing homes to understand emerging healthcare needs in nursing homes. Alliant Health Solutions is engaging nursing home leadership in the key area to ensure plans are in place to achieve and maintain health quality and equity!

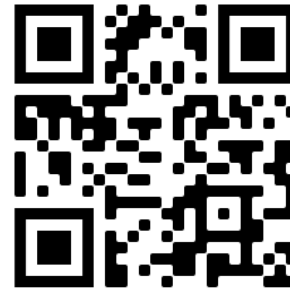
**Please scan the QR codes below and complete the assessment.**



**TRAINING**

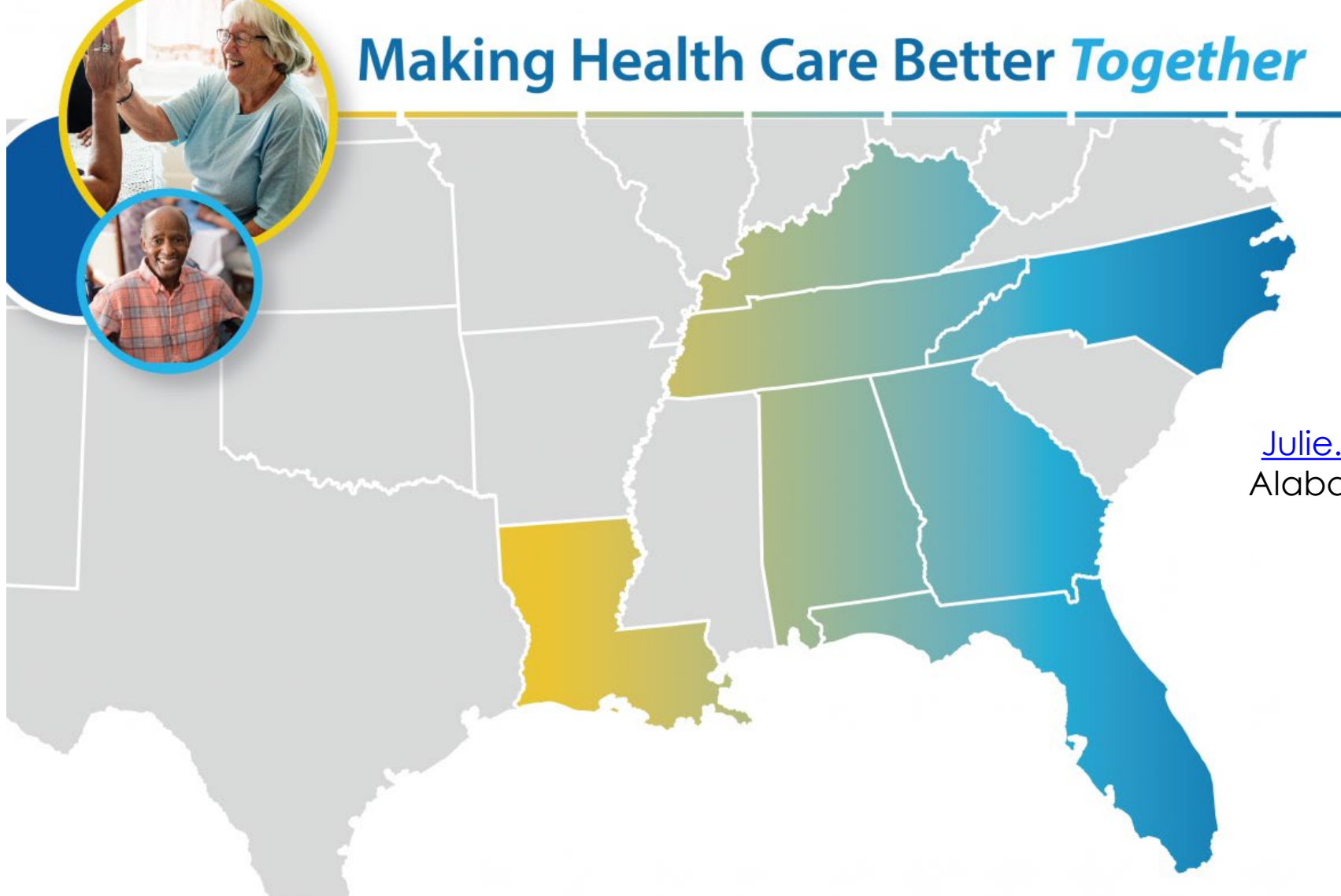
Encourage completion of infection control and prevention trainings by front line clinical and management staff

## Nursing Home Infection Prevention (NHIP) Initiative Training Assessment



<https://bit.ly/NHIPAssessment>

# Making Health Care Better *Together*



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## Program Directors

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