

Patient Engagement Innovations & Patient Reported Outcomes for Patients with Chronic Illness in Two Large Accountable Care Organizations

Stephen M. Shortell¹, Bing Ying Poon¹, Patricia Ramsay¹, Hector P. Rodriguez¹, Susan L. Ivey¹, Thomas Huber¹, Jeremy Rich², Tom Summerfelt³
¹Center for Healthcare Organizational and Innovation Research, UC Berkeley School of Public Health, ²DaVita HealthCare Partners, ³Advocate Health



BACKGROUND

- There is an increasing emphasis on engaging patients in their own care, in part to address the growing number of patients with chronic illness.
- IS PATIENT ENGAGEMENT ASSOCIATED WITH BETTER HEALTH OUTCOMES AND IF SO, WITHIN WHICH TYPE OF PRACTICES?**
- We address this question for patients with diabetes and/or cardiovascular disease treated at adult primary care practices.

DATA & METHODS

- 2176 patients at 16 randomly selected primary care practice sites in 2 large accountable care organizations.
- Cross-sectional, observational study
- Tested for association between practice level engagement innovations and patient-reported outcomes (PRO) using multilevel mixed effects logistic regression.
- Tested for patient activation mediating the effect of patient assessment of chronic illness care using Sobel-Goodman and multilevel test for mediation.

FULL MODEL

OUTCOMES

- Higher than median
- emotional PRO
- physical PRO
- social PRO

PRACTICE PREDICTORS

- Patient assessment of chronic illness care (PACIC)
- Patient activation measure (PAM)
- Relational coordination among primary care team (PCP, MA, nurse)
- Patient-centeredness (5 item scale)
- Practice-reported shared decision making (7 item scale)

PATIENT PREDICTORS

- Age
- Sex
- Education level
- Insurance
- English proficiency
- Disease burden

PRINCIPAL FINDINGS

- Patient assessment of chronic illness care was strongly associated with all three patient reported outcomes. However, this effect was entirely mediated by patient activation (all $p < 0.0001$).
- MORE ACTIVATED PATIENTS WERE MUCH MORE LIKELY TO SCORE ABOVE THE MEDIAN ON ALL THREE PATIENT REPORTED OUTCOMES.**
- Emotional
 - OR 2.26, CI 1.79, 2.86, $p < 0.0001$
- Physical
 - OR 2.56, CI 2.00, 3.27, $p < 0.0001$
- Social
 - OR 4.12, CI 3.21, 5.29, $p < 0.0001$

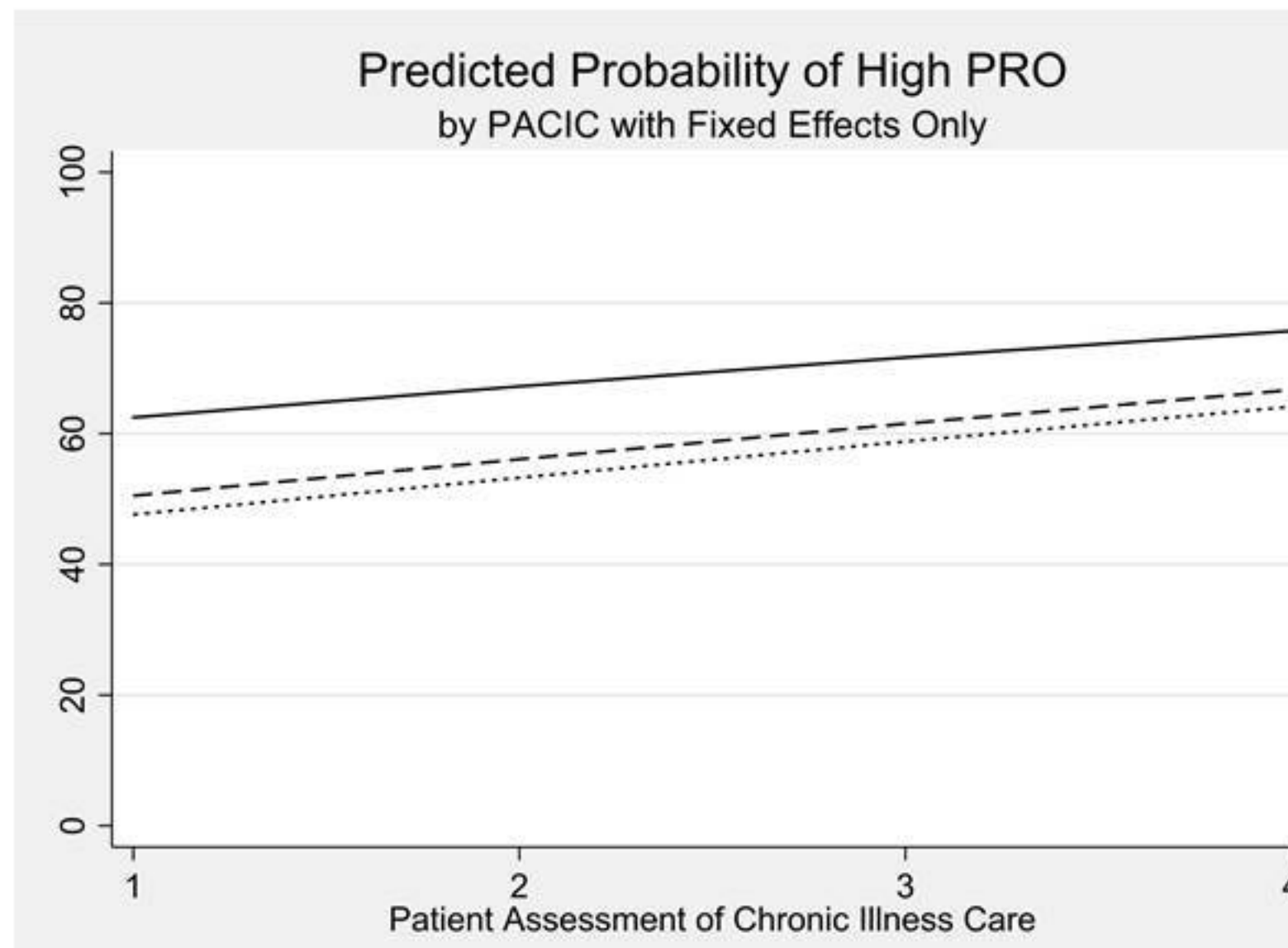


FIGURE 1. Predicted probabilities for a college educated, female patient 65+ years of age, fluent in English, on Medicare with 2 comorbidities. PAM is not included in this model.

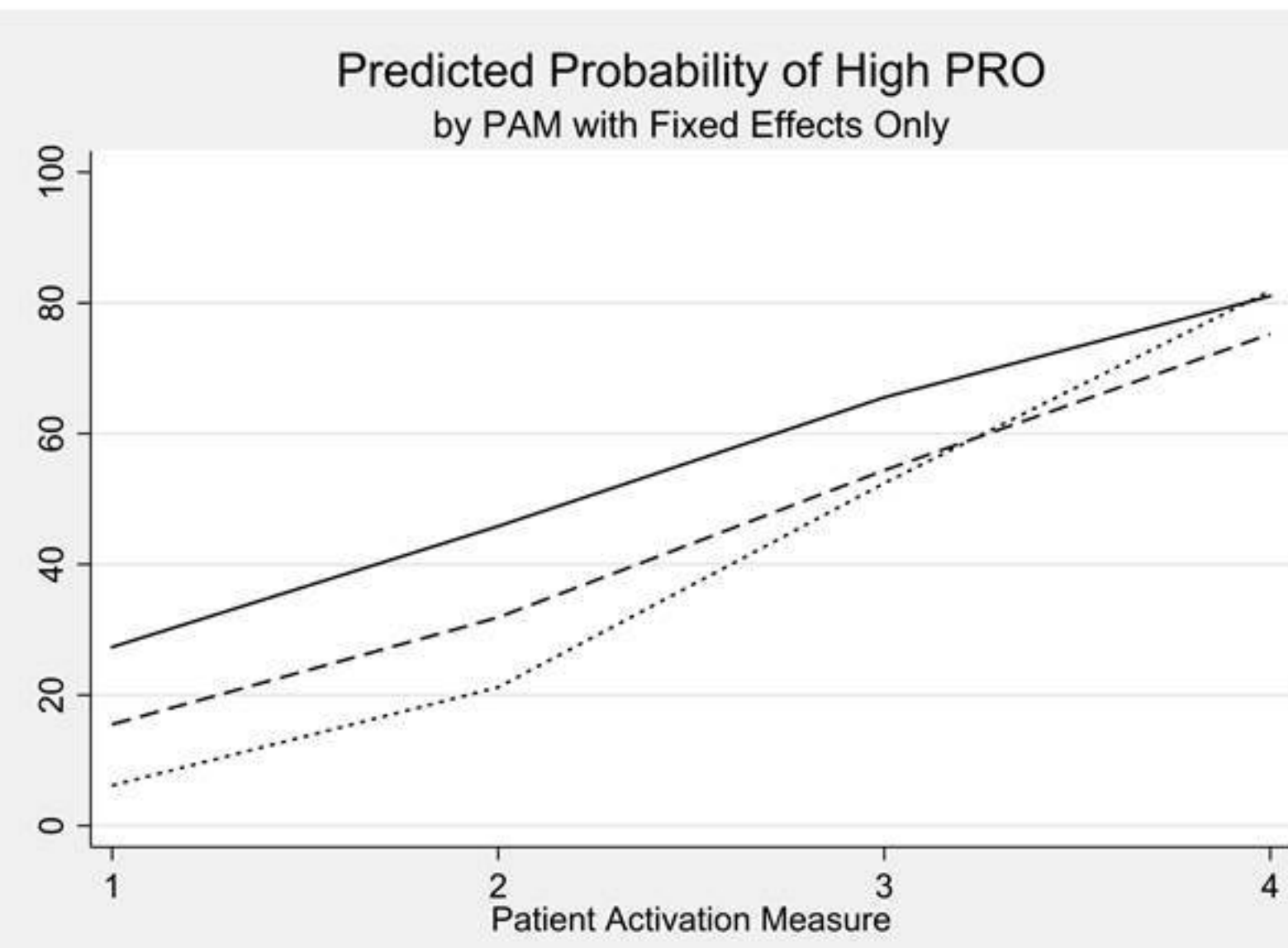


FIGURE 2. Predicted probabilities for the same hypothetical patient. PACIC was no longer significant when PAM was included in the model.

OTHER FINDINGS

- Patient-centered culture was associated with better emotional and physical health.
- Relational coordination and shared decision-making activities reported by practices were not significantly associated with better patient reported outcomes.

SENSITIVITY ANALYSES

- When we measured disease burden as having at least one mental health condition, the odds of high PRO substantially decreased.
- When we included indication of having at least one additional physical comorbidity, the odds were further lowered.
- Results were not importantly changed when we examined PROs continuously using hierarchical linear modeling.

CONCLUSION

More activated patients experienced better health. Patients who received care from practices with more developed patient-centered culture experienced less depression and better physical function.
AS PAYMENT REFORM POLICIES SUCH AS MACRA EMPHASIZE OUTCOME PERFORMANCE MEASURES, PRACTICES SHOULD FOCUS ON ACTIVATING PATIENTS AND DEVELOPING PATIENT-CENTERED CULTURES TO IMPROVE QUALITY OF CARE.

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CONTACT

Stephen M. Shortell, PhD MPH MBA
 UC Berkeley | School of Public Health
 shortell@berkeley.edu | 510-643-5346