Reducing Readmissions by Addressing the Social Determinants of Health

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ABOUT THE COMMUNITY-BASED CARE TRANSITIONS PROGRAM STUDY
HOSPITAL READMISSIONS IN MEDICARE

2017: 11 million inpatient stays
Generating $135 billion in costs
20% had unscheduled readmission within 30 days
$23 billion in costs
RESPONSES BY MEDICARE

Hospital Readmission Reduction Program (2012)
- Reduced reimbursements for hospitals with excess readmissions

Community-based Care Transition Programs (CCTP) (2012)
- 100 demonstration projects across the country
- Goal: Reduce readmissions by 20%
- Vast majority did not work
  - Light touch (e.g., telephone follow-ups)
  - Most managed by medical professionals (e.g., nurse practitioners)
CHICAGO SOUTHLAND COALITION FOR TRANSITION CARE (CSCTC)

- Run by Catholic Charities Chicago in 4 hospitals
- Challenging area as compared to the rest of Chicago
  - 30% higher poverty rates
  - 3x % of Black residents
- CCTP program part of original demonstration
- Different most other CCTP programs
  - Run by social workers
  - In-hospital and home visits to patients
  - Designed to address the social determinants of health
CHICAGO SOUTHLAND COALITION FOR TRANSITION CARE (CSCTC)

Some specifics

- Started July 2012
- Served a broad base of traditional Medicare patients
- Did not serve
  - People with a diagnosis of mental illness or substance abuse
  - Those in Medicare Advantage
- Treated 16,000 through the end of 2015
- At its peak, was serving 450/month (50% of discharges)
- Average cost to Catholic Charities Chicago was $368/patient
Comparison Set: 18 other hospitals (selected from ~80 in Cook County) with the same pre-treatment trends in readmission rates and traditional Medicare discharges

Data: Universe of Medicare Part A claims
EVALUATION STRATEGY

**Intention to Treat:** Did CSCTC reduce average readmission rates over time?

**Treatment on Treated:** What happened to readmission rates for those in the program?
FIGURE 1. Monthly admissions in Medicare fee-for-service, CSCTC programs and comparison group hospitals, January 2010–November 2015
A diagram shows the treatment readmission rate and comparison readmission rate over the years from 2010 to 2015. The left axis represents the treatment readmission rate, while the right axis represents the comparison readmission rate. The line for hospitals with CCTP is indicated, showing a distinct pattern compared to the comparison hospitals.
Percent Reduction in Readmission Rates for CCTP Participants (95% CI)

- 7-day: -28.2%
- 30-day: -16.7%
- 90-day: -13.8%
Change in the Cost per Readmission for CCTP Participants (95% CI)

<table>
<thead>
<tr>
<th>Time Interval</th>
<th>Change in Costs</th>
</tr>
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<tbody>
<tr>
<td>7-day</td>
<td>-$173</td>
</tr>
<tr>
<td>30-day</td>
<td>-$364</td>
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<tr>
<td>90-day</td>
<td>-$580</td>
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DOES CSCTC REDUCE SOCIAL DISPARITIES IN HEALTH?
30-Day Readmission Rate by Group -- Pre CCTP Period

- **White, non-Hispanic**: 18.2%
- **Blacks and Hispanic**: 23.3%
- **Not Dual Eligible**: 17.9%
- **Dual Eligible**: 24.6%

**28% higher** vs **37% higher**
Percent Reduction in 30-Day Readmission Rates, CCTP Participants (94% CI)

- White, non-Hispanic: 2.7%
- Blacks and Hispanic: -25.5%
- Not Dual Eligible: -8.7%
- Dual Eligible: -35.2%