Reducing Readmission Risk through High Quality Transitions

Jane Brock, MD, MSPH
CFMC
Medicare spending
The Cost of Health Care
How does it compare?

If other prices had grown as quickly as healthcare costs since 1945...

- A dozen eggs would cost $55
- A gallon of milk would cost $48
- A dozen oranges would cost $134

The hottest topic in healthcare reform

- 19.6% readmitted in 30d
- $17.4 Billion (2004)

“...much of what drives hospital readmission rates are patient- and community-level factors that are well outside the hospital’s control.”

<table>
<thead>
<tr>
<th>Statement</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care in the US is too hospital-centric</td>
<td>1949</td>
</tr>
<tr>
<td>Medical services alone won’t be adequate</td>
<td>1954</td>
</tr>
<tr>
<td>We should integrate medical and social support</td>
<td>1956</td>
</tr>
<tr>
<td>Care patterns are local, and reflect capacity to deliver care</td>
<td>1973</td>
</tr>
<tr>
<td>Hospital costs are unsustainable</td>
<td>1980</td>
</tr>
<tr>
<td>Hospital readmissions are prevalent</td>
<td>1984</td>
</tr>
<tr>
<td>The Health Care Financing Administration could direct appropriate</td>
<td>1984</td>
</tr>
<tr>
<td>subcontractors to do things that would prevent readmissions</td>
<td></td>
</tr>
</tbody>
</table>
The ACA and Integrating Care

= Reduce readmissions!
Association Between Quality Improvement for Care Transitions in Communities and Rehospitalizations Among Medicare Beneficiaries

Original Contribution

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Important

Medicare beneficiaries experience errors during transitions among care settings, yielding harms that include unnecessary rehospitalizations.

Objective

To evaluate whether implementation of improved care transitions for patients with Medicare fee-for-service (FFS) insurance is associated with reduced rehospitalizations and hospitalizations in geographic communities.

Design, Setting, and Participants

Quality improvement initiative for care transitions by health care and social services personnel and Medicare Quality Improvement Organization staff in defined geographic areas, with monitoring by community-specific and aggregate control charts and evaluation with pre-post comparison of performance differences for 14 intervention communities and 50 comparison communities from before (2006-2008) and during (2009-2010) implementation. Intervention communities had between 22,070 and 90,843 Medicare FFS beneficiaries.
What causes readmissions?

Provider-Patient interface

- Unmanaged condition worsening
- Use of suboptimal medication regimens
- Return to an emergency department

Unreliable system support

- Lack of standard and known processes
- Unreliable information transfer
- Unsupported patient activation during transfers

No Community infrastructure for achieving common goals
The Basics of Interventions:
I think it’s an elephant!
And it worked

-5.7% (p<.001)
-2.1% (p=.08)
P=.03 (difference)
Summary of results

Rehospitalizations

5.7% ↓ 2.7x (1 hospitalization for every 1000 Medicare beneficiaries) that experienced by comparison communities

$4,000,000 vs. $1,000,000
• Improve the quality of transitional care by recruiting communities to work together

• Reduce 30-day readmissions by 20%

• Through community convening
  – Tools
    • Root cause analysis
    • Social Network Analysis Diagrams
    • Hot-spotting maps
  – Data, data, data (e.g., readmission/admission metrics; reach/intervention effectiveness measures)
# QIO Progress by March 31, 2013

<table>
<thead>
<tr>
<th># of Engaged Communities</th>
<th>375</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Beneficiaries Living there</td>
<td>13,062,093</td>
</tr>
<tr>
<td># Communities with Signed Coalition Charter</td>
<td>221</td>
</tr>
<tr>
<td># Communities Receiving Formal Funding</td>
<td>81</td>
</tr>
<tr>
<td># Recruited Hospitals</td>
<td>859</td>
</tr>
<tr>
<td># Recruited Nursing Homes</td>
<td>1,533</td>
</tr>
<tr>
<td># Recruited Home Health Agencies</td>
<td>901</td>
</tr>
<tr>
<td># Recruited Hospice Facilities</td>
<td>342</td>
</tr>
<tr>
<td># Recruited Dialysis Facilities</td>
<td>91</td>
</tr>
<tr>
<td># Recruited Outpatient Physicians</td>
<td>&gt; 1,927</td>
</tr>
</tbody>
</table>
National Coalition of QIO-recruited Communities Early Progress

Quarterly Readmissions per 1,000 Beneficiaries

9.1%
## Select Relative Improvement: Readmissions

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Number of Fee-for-Service Medicare Beneficiaries</th>
<th>CMS FY 2011* Readmissions/1000</th>
<th>CMS FY 2012** Readmissions/1000</th>
<th>Relative Improvement Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early CCTP communities (3.1.12)</td>
<td>791,977</td>
<td>63.8</td>
<td>58.7</td>
<td>8.0%</td>
</tr>
<tr>
<td>Early QIO Communities (7.31.12)</td>
<td>4,085,170</td>
<td>55.9</td>
<td>51.5</td>
<td>7.8%</td>
</tr>
<tr>
<td>National</td>
<td>35,836,293</td>
<td>57.6</td>
<td>53.4</td>
<td>7.1%</td>
</tr>
</tbody>
</table>
Person-level Interventions

Coaching
Care Transitions Intervention
www.caretransitions.org
Become a tightrope walker forever

Navigator/Care Coordinator
Someone to hold your hand while you walk the tightrope

Transitional Care Nurse
http://www-transitionalcare.info/
Someone to carry you over the bridge
Institution-level Interventions

- Standardize your transfer processes
- Standardize information transfer
- Know the capabilities of your partners
- Track and know your data

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOOST</td>
<td><a href="http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/CT_Home.cfm">http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/CT_Home.cfm</a></td>
</tr>
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</table>
Coalition-level ‘interventions’

Collective Impact

- Common agenda
- Standard measurement system
- Mutually reinforcing activities
- Continuous communication
- Backbone support organizations


Channeling change: Making collective impact work  
Structure of Collaboration

Kania and Kramer: Embracing Emergence.
http://www.ssireview.org/blog/entry/embracing_emergence_how_collective_impact_addresses_complexity
In the real world..

- Regularly scheduled forum for interaction/social interaction
  - Somebody has to keep email lists, schedule meetings, bring food(!)
  - Leverage ‘interventions’
- Common metrics
- Structure to permit case discussion
- Progress tracking – community metrics
And the CCTP

• Paid agency for interventions serving as a backbone
  – WITH OTHER WORK AND HISTORY IN THE COMMUNITY
  – Ideally with local funding
• New community-based services
• Presence of community provider in the hospital
• Internal data tracking process – to adapt..
• Accountability to broader constituency
Baseline Quarter Readmissions = 12,926
First quarter after intervention readmissions = 12,151

p = 0.0024
Hospital payment reduction

- 3 yrs’ discharges
- ‘Excess readmission ratio’
- Added across 3 conditions
- **Ratio** = 1 - (O/E)

1% → 2% → 3%
• Added exclusions for planned readmissions
• Added conditions – CABG, COPD, hip fx?
• 2 MN = inpatient stay

• And the continuing problem of Observation Stays..
Risk stratification models
Kansagara et al. JAMA 306(15), 2011
Risk Stratification

- Demographics – age, gender, SES
- Comorbidities - # or score
- Utilization – hospitalization, ED use over recent period
- # of medications at discharge

- LACE = 0.68
Better identification

- Mental health dx
- Substance use/abuse
- Functional status
- Preparation/confidence
Disparities SES and readmissions

Heart Failure

• Black Medicare patients’ readmissions higher (RR=1.09, 1.06-1.13) than white patients*

• Income significantly associated with readmission in heart failure (adjusted odds ratio for quartile 1:4 comparison, 1.18; 95% confidence interval, 1.10 to 1.26, p <0.0001).**


SES and Readmissions

- Not accounted for in measures
- 3-4% risk difference
- Neighborhood effects
- ? Stratification by % low SES
A much broader notion of ‘bundling’
Better Health for the Population

Better Care for Individuals

Lower Cost Through Improvement

Better Health for the Population
Who lives here and what do they want/need?