Care Coordination – What Matters

Researchers, Improvers, Providers, Patients and Caregivers

Jane Brock, MD, MSPH
Telligen
• A little background – how did we get here?
  – Transitional care/care coordination
  – A mandate to include patients
• How do we ‘know’ what we know;
• How is reality different from what we know?
• Who has been invited to the party and what difference does that make?
• What’s the best way forward?
• What role can you play in getting there?
The National Quality Strategy

- Making care safer by reducing harm caused in the delivery of care.
- Ensuring that each person and family is engaged as partners in their care.
- Promoting effective communication and coordination of care.
- Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
- Working with communities to promote wide use of best practices to enable healthy living.
- Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.

http://www.ahrq.gov/workingforquality/priorities.htm
The QIO Program

- One mechanism for CMS’s role in the National Quality Strategy
- Restructured
- New contract 8/2014
- Reflects CMS’s quality priorities
Current Statement of Work

• 5 main priorities:
  – Keeping the patient at the center
  – Improving care coordination
  – Safer care
  – Preventive care
  – Better data for better care
Which means:

- Better cardiac health
- Every diabetic counts
- Care integration through better use of HIT
- Reducing healthcare acquired conditions
  - Pressure ulcers
  - Healthcare associated infections
- Better nursing home quality
  - Appropriate use of antipsychotics
• Quality transitional/coordinated care among settings
  – Reduced readmissions/non-beneficial admissions

• Reduced adverse drug events

• Physicians prepared for value-based purchasing

• Beneficiary concerns addressed

• 1 Million unimmunized beneficiaries immunized

• 10,000 beneficiaries screened for depression and alcohol use disorders
<table>
<thead>
<tr>
<th></th>
<th>Disparities</th>
<th>Pts</th>
<th>Pharm</th>
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<td>Better cardiac health</td>
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<td>Preparing physicians for VBP</td>
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<td>Addressing Beneficiary Concerns</td>
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<td>Immunizing previously unimmunized</td>
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<td>Improved mental health screening</td>
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Disparities = racial/ethnic minorities + rural
Where are we in 2015 and how did we get here?

Hospitals and Readmissions, 2015 (Round 3)

- 18% readmitted
- Penalties expanded (COPD, joint replacement)
- # of hospitals fined = 2610 (↑433)
- Maximum penalty = 3%
- # with maximum penalty = 39
- Patient satisfaction – average
- Satisfaction with discharge key challenge

Wyoming: 9 receiving penalties
None with highest penalty
“Nothing in this title shall be construed to authorize any Federal officer or employee to exercise any supervision or control over the practice of medicine or the manner in which medical services are provided...”
Medicare spending
The ACA and Integrating Care

Bundle within services
Integrate service arrays for individuals
Manage populations

Reduce readmissions!
What we learned about readmissions 2008-2011

Association Between Quality Improvement for Care Transitions in Communities and Rehospitalizations Among Medicare Beneficiaries

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Jason Mitchell, MS
Kimberly Jels, MPH
Beth Stevens, MS
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Melissa Goroski, MPH
Joanne Lynn, MD, MA, MS
for the Care Transitions Project Team

importance: 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 15 comparison communities from before (2006-2008) and during (2009-2011) implementation. Intervention communities had between 22,070 and 90,863 Medicare FFS beneficiaries.

795,157
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
Rehospitalizations/1000

-5.7% (p<.001)
-2.1% (p=.08)
P=.03 (difference)
Where we are now with care coordination

• Some evidence, some gaps in evidence
  – SES
  – Rural
  – No direct outcome measures

• Many payment models rely on readmissions
  – VBP
  – Bundled payment arrangements

• We are just beginning to learn about what patients/caregivers value
  – Not avoiding readmissions
Quarterly Admissions and Readmissions

Admissions/1000
78.4 - 66.3 = 12.1*

Readmissions/1000
14.7 - 11.3 = 3.4*
How we know what we know

What matters to researchers
Mechanism

Outcome
Context + Mechanism → Outcome
Project RED

Re-engineered discharge

Specifics

Results
In reality..

Your hospital here..
Context = Adaptation

What is beginning to concern researchers..
Core Components from the literature: PCORI matrices

- Patient engagement (activation)
- Patient education
- Caregiver engagement
- Caregiver education
- Clinical management
- Care coordination
- Medication management
Rural

- Distances
- ‘Team’ membership
- Culture – patients and providers
- Resources
- Environment
- What’s a neighborhood?

The one rural-developed model that I know of..
VA Coordinated-Transitional Care Program (C-TraC)
http://www.hipxchange.org/C-TraC

- Phone-based program
- RN nurse case manager – not a coach
- Teachings based on theory of Spaced Retrieval*
  - Method of learning information by practicing recalling that information over increasingly longer periods of time applicable in early dementia
- Caregivers involved, activated at each step
- Protocols..

Veteran Eligibility

• Hospitalized on non-psychiatric acute-care ward
• Discharged to community

AND one or more of the following:

1. Have documentation of dementia, delirium or cognitive impairment

2. 65 years or older AND
   • lives alone OR
   • had a previous hospitalization in past 12 months

* Kind, Health Affairs, 2012.
C-Trac intervention steps

1. Daily participation in multidisciplinary discharge rounds

2. One brief in-hospital visit

3. Series of post-discharge phone contacts

Inpatient Rounds

NCM = ‘Transitional Nurse-Case Manager’

- Patient identification
  - NCM reviews daily electronic list of all hospitalized veterans
  - NCM participates in daily multi-disciplinary discharge round on each targeted inpatient ward to offer transitional care and outpatient viewpoint to inpatient care team

* Kind, Health Affairs, 2012.
In-Hospital Visit

• NCM brief intervention
  ▪ Introduction
  ▪ Medical follow-up
  ▪ Red Flags
  ▪ Contact information

• Contact reinforced with ½ page handout
  – Red flags
  – Date/time of next NCM call
  – Date of next f/u appointment
  – contact information for NCM and triage nurse
Telephone Follow-up

• **Initial call**
  – 48-72 hours after discharge
  – Patient and caregiver
  – Medication management
  – Medical follow-up
  – 3 Red flags
  – NCM contact information

• **Medication discrepancies or red flags prompt additional action**

• **Average 36 minutes per call**

• **Coordination with PCP**
Veterans Served

- 605 Veterans approached, enrolled over first 18 months
- 5 approached and refused (<1%)
- ~1/3 of veterans had caregivers
- 22% had dementia/cognitive impairment

Percent of Veterans with Medication Discrepancy Detected at 48-72h by C-TraC

Medication Discrepancy?

47% Yes

30-Day Rehospitalization Rates for Veterans in VA C-TraC Program During Baseline and Intervention Periods, Overall

Q = 3-month period (ie. quartile)
Average rehospitalization rates for baseline (34%) and intervention (23%), $P = 0.013$
SES: the ultimate patient-centered context

- 3-4% risk difference
- ?quality
- Not accounted for in measures
- Safety net hospitals and penalties, OR = 2.38*
- Poor measures
  - SSI
  - Medicaid
  - Income from survey

*Joynt and Jha, JAMA, Jan 2013
But..
Disadvantage as a community characteristic

After hospitalization:
- Increased vulnerability
- Neighborhood support
- Social network
- Safe infrastructure
- Environment compatible with health
- Many precedents
Area Deprivation Index (ADI)

• A validated census-based measure available at the block-group (neighborhood) level, first created in 2003*
  – Factor-based index, 17 US Census-based indicators

• Correlated with multiple health outcomes
  – Cardiovascular mortality
  – Cancer mortality
  – Cervical cancer prevalence

• Crosswalks available Census block group – ZIP + 4

Analysis

- 2000 US Census ADI for all US block-groups, geocoded to Zip+4 codes
- Random 5% national sample FFS Medicare (2004-2009) DCs
  - CHF, AMI, Pneumonia
- Linked via Zip+4 code listed for patient’s residence
- Final sample = 255,744
- Controlled for:
  - Medicaid, SSI, rurality of residence
  - Comorbidities, HCC score
  - Characteristics of index hospital

*Kind et al, Annals, Dec 2014*
30-Day Rehospitalizations and Neighborhood ADI (%)

*Kind et al, Annals, Dec 2014

ADI = area deprivation index; AMI = acute myocardial infarction; CHF = congestive heart failure; PNA = pneumonia.

* On the ADI percentile range shown, 0 is the least socioeconomically disadvantaged group of neighborhoods ranging sequentially by equally sized neighborhood groupings up to 100 as the most disadvantaged group of neighborhoods. Mean lines represent the mean relationship over each ADI percentile.
Limitations: Ecological fallacy

?? Or ecological reality??

Ecology = the branch of biology that deals with the relations of organisms to one another and to their physical surroundings.

The real limitation: need to update..
Coming soon I hope..
http://www.hipxchange.org/ADI

Annals of Internal Medicine

Neighborhood Socioeconomic Disadvantage and 30-Day Rehospitalization
A Retrospective Cohort Study

Amy J.H. Kind, MD, PhD; Steve Jencks, MD, MPH; Jane Brock, MD, MSPH; Menggang Yu, PhD; Christie Bartels, MD; William Ehlenbach, MD, Msc; Caprice Greenberg, MD; and Maureen Smith, MD, MPH, PhD
What Matters for Providers

• **Payment for Value**
  – 85% FFS by 2016 (!)

• **Hospitals**
  – Value Based Purchasing = 1.5%
  – Hospital Readmissions = 3%
  – Hospital Acquired Conditions = 1%

• **Outpatient**
  – PQRS reporting – 2%
  – Performance on the Value Modifier – 2%/4%
Clinical process measures – decreased/decreasing
Transitioning to outcomes (mortality, HACs)
Will be Outcomes, Efficiency and Patient experience of care
Evaluating Hospitals
FY 2016 Domains and Measures

Clinical Process of Care (CPOC)
1. AMI-7a: Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival
2. ★ IMM-2: Influenza Immunization
3. PN-6: Initial Antibiotic Selection for CAP in Immunocompetent Patient
4. SCIP-Card-2: Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker During the Perioperative Period
5. SCIP-Inf-2: Prophylactic Antibiotic Selection for Surgical Patients
6. SCIP-Inf-3: Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time
7. SCIP-Inf-9: Postoperative Urinary Catheter Removal on Post Operative Day 1 or 2
8. SCIP-VTE-2: Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery

Patient Experience of Care
1. Nurse Communication
2. Doctor Communication
3. Hospital Staff Responsiveness
4. Pain Management
5. Medicine Communication
6. Hospital Cleanliness & Quietness
7. Discharge Information
8. Overall Hospital Rating

Outcome
1. MORT-30-AMI: Acute Myocardial Infarction (AMI) 30-Day Mortality Rate
2. MORT-30-HF: Heart Failure (HF) 30-Day Mortality Rate
3. MORT-30-PN: Pneumonia (PN) 30-Day Mortality Rate
4. AHRQ PSI-90: Complication/patient safety for selected indicators (composite)
5. CLABSI: Central line-associated bloodstream infections among adult, pediatric, and neonatal Intensive Care Unit (ICU) patients
6. ★ CAUTI: Catheter-associated urinary tract infections among adult and pediatric ICUs
7. ★ SSI: Surgical site infections specific to abdominal hysterectomy and colon surgery

A star (★) indicates a newly adopted measure for the Hospital VBP Program.
Hospital VBP Program
FY 2018 Domains & Measures

Domain Weights

Clinical Care 25%
Safety 25%
Patient-and Caregiver-Centered Experience of Care/Care Coordination 25%
Efficiency and Cost Reduction 25%

Patient-and Caregiver-Centered Experience of Care/Care Coordination

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey

Clinical Care
- MORT-30-AMI
- MORT-30-HF
- MORT-30-PN

Safety
- CLABSI
- CAUTI
- SSI: Colon & Abdominal Hysterectomy
- MRSA Infections
- C-difficile Infections
- AHRQ PSI-90
- PC-01

Efficiency and Cost Reduction
- MSPB-1
Outpatient providers: PQRS Reporting in 2015 is VERY IMPORTANT

Group practice reporting

- Avoid the 2017 PQRS negative payment adjustment (-2.0%)
- Satisfy the CQM component of the Medicare EHR Incentive Program
  **NOTE:** Eligible professionals will still be required to report the other meaningful use objectives through the Medicare and Medicaid EHR Incentive Programs Registration and Attestation System
- **Physicians in groups of 2-9 EPs** could receive an upward or neutral VM payment adjustment based on quality-tiering in 2017 (+0.0% to +2.0x of MPFS, where ‘x’ represents the VM adjustment factor)
- **Physicians in groups of 10+ EPs** could receive an upward, neutral, or downward VM payment adjustment based on quality-tiering in 2017 (-4.0% to +4.0x of MPFS, where ‘x’ represents the VM adjustment factor)
- In 2017, groups receiving an upward VM adjustment under quality-tiering are eligible for an additional +1.0x if their average beneficiary risk score is in the top 25% of all beneficiary risk scores nationwide
- Subject to the 2017 PQRS negative payment adjustment (-2.0%)
- Will not satisfy the CQM component of the Medicare EHR Incentive Program
- Subject to the VM automatic downward payment adjustment if a non-PQRS reporter:
  - 2.0% (for physicians in groups with 2-9 EPs and physician solo practitioners, if at least 50% of the EPs in the group or the solo practitioners do not satisfactorily report under PQRS as individuals)
  - 4.0% (for physicians in groups with 10+ EPs, if at least 50% of the EPs in the group or the solo practitioners do not satisfactorily report under PQRS as individuals)

Outpatient

- **19 cross cutting measures**
  - 4 care coordination measures

- In order for EPs to satisfactorily report PQRS measures, EPs or group practices are required to report one (1) cross-cutting measure if they have at least one (1) Medicare patient with a face-to-face encounter.
Calculation of VM score 2015

<table>
<thead>
<tr>
<th>Cost/Quality</th>
<th>Groups with &gt; 10 EPs</th>
<th>Groups with 2-9 EPs and solo practitioners</th>
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<tbody>
<tr>
<td></td>
<td>Low Quality</td>
<td>Ave Quality</td>
</tr>
<tr>
<td>Low Cost</td>
<td>0.0%</td>
<td>+2.0x*</td>
</tr>
<tr>
<td>Average Cost</td>
<td>-2.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>High Cost</td>
<td>-4.0%</td>
<td>-2.0%</td>
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* Eligible for an additional +1.0x if average beneficiary risk score is in the top 25% of all beneficiary risk scores

Acute and Chronic Ambulatory Care-Sensitive Condition (ACSC) Composite, 30-day All-Cause Hospital Readmission, Per Capita Costs for All Attributed Beneficiaries, and Per Capita Costs for Beneficiaries with Specific Conditions measures.
What Matters to Patients and caregivers/families

• Do they care about readmissions?
• What do they care about?
• What do they notice?
• What incentives do they have?
• What incentives should they have?
Core Components from the literature: PCORI matrices

- Patient engagement (activation)
- Patient education
- Caregiver engagement
- Caregiver education
- Clinical management
- Care coordination
- Medication management

Evidence…
But how do you assemble this at the level of an individual patient?

HOW CAN WE DO THIS WITHOUT ASKING OUR CUSTOMERS?
What we are doing: Days at Home
Our BFAC
So now what

• Bringing patient perspective/influence is crucial
• Need to understand ‘what works for whom and under what contexts’
  – How to define ‘for whom’?
  – Rural as an extremely common but understudied context

• Measures that matter...
  – ??
  – SES/ADI adjustment
  – Community/population rates
  – Days at home

• We could bring our perspectives as patients as a start
But mostly.. need a different kind of evidence

• Need to tie activities to direct outcomes
  – What works for whom under what circumstances
  – Rural and low SES identified as ‘disparities’
  – But few tested and ‘proven’ interventions
• That are tied to long term goals: ie readmission rates
• Stories with data
• WE NEED YOUR HELP