2011 Military Health System Conference
Safe Transitions from Hospital to Home

The Quadruple Aim: Working Together, Achieving Success
Jann Dorman, Linda Trowbridge, and Carol Barnes
January 26, 2011
**Safe Transitions from Hospital to Home**

Presented at the 2011 Military Health System Conference, January 24-27, National Harbor, Maryland
<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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</thead>
<tbody>
<tr>
<td>3-3:20</td>
<td>Introduction and Background Readmission Diagnostic Evaluation Results</td>
<td>Linda Trowbridge</td>
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<tr>
<td>3:20-3:25</td>
<td>Video</td>
<td>Linda Trowbridge</td>
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<td>3:25-3:40</td>
<td>Moving from Evaluation to Results</td>
<td>Carol Barnes</td>
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<td>3:40-3:45</td>
<td>Discussion</td>
<td>All</td>
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Session Objectives

- Participants will be able to...
  - understand key drivers of unnecessary readmissions
  - describe the essential components to a patient centered transitions approach
  - identify key interventions that contribute to improved transitions and a decrease in unnecessary readmissions
More about Kaiser Permanente

- 8.7 million members
- 9 states + Washington, DC
- 32 hospitals
- 420 medical offices
- 14,000 physicians
- 160,000 employees
- KPHealthConnect
What do we know about readmissions?

- **Readmissions are Frequent**
  - 1 out of every 5 Medicare beneficiaries had an unplanned readmission within 30 days (NEJM, April 2009)

- **Readmissions are Costly**
  - Total cost of unplanned readmissions for Medicare population estimated to be $17.4 billion in 2004 alone (NEJM, April 2009)
  - CMS reimbursement is changing – there are new incentives to reduce unplanned readmissions

- **Readmissions are sometimes preventable**
  - Nationwide, between 9% and 48% of readmitted patients receive substandard care during or following the index hospitalization (Archives Internal Medicine 2000)
"Care transitions is a team sport, yet all too often we don't know who our teammates are, or how they can help."

Eric A. Coleman, MD, MPH
Readmission Diagnostic Evaluation Results
NCAL Readmission Rates

THE KP NCAL 65+
READMISSION RATE

▪ is lower than the national average
▪ has not changed much over time
▪ varies across individual medical centers

Note: readmission performance is not risk adjusted
Why are patients readmitted?

- Systemic Drivers of readmissions are still not clearly understood
  - Administrative data like diagnoses reveals associations rather than explanations
  - Understanding why readmissions occur and which readmissions are preventable requires closer examination of the patient care
STUDY DESIGN
We reviewed the 30 most recent readmissions at 20 medical centers. The study included a total of 600 individual reviews of each case.

CASE REVIEW PROCESS
Reviewing a case involved four steps:
1. Chart review
2. Provider interview
3. Patient interview
4. Final assessment by a team consisting of a registered nurse and a physician reviewer; this team triangulated data across the three sources

BACKGROUND OF TOOL
Adapted from IHI tool developed by Roger Resar.
We triangulated data from multiple sources

538 MD INTERVIEWS
- PCP 234
- HBS 166
- Specialist 111
- SNF MD 14
- Other 13

433 PATIENT OR CAREGIVER INTERVIEWS
- Patient 255
- Caregiver 178

600 CHART REVIEWS

600 RN/MD Team FINAL ASSESSMENTS
Synthesis of 3 different data sources
Analysis

Throughout the study, the analytic team partnered closely with expert operational leaders across many departments to analyze, interpret, and synthesize data. Analytic approaches applied include:

1. **Tabulation and aggregation** of responses from close-ended questions
2. **Qualitative coding of responses** from open-ended questions for key themes, frequency and patterns
3. **Analysis of 50 videotaped** patient and family caregiver interviews for frequency, themes and patterns
4. **Separate analyses** for 2 subgroups:
   - Cases involving discharge to SNF
   - Cases assessed as very or completely preventable
5. **Clustering** of the 42 missed opportunities identified by RN/MD assessment team into 5 categories.
Some case were potentially preventable

<table>
<thead>
<tr>
<th>Who We Asked</th>
<th>Not Likely</th>
<th>Slightly or Moderately Likely</th>
<th>Very or Completely Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD (n=445)</td>
<td>67%</td>
<td>30%</td>
<td>3%</td>
</tr>
<tr>
<td>Patient (n=368)</td>
<td>67%</td>
<td>20%</td>
<td>13%</td>
</tr>
<tr>
<td>RN/MD Final Assessment Team (n=537)</td>
<td>53%</td>
<td>36%</td>
<td>11%</td>
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</table>
Five areas of opportunity were identified

For each case, RN/MD assessment teams identified missed opportunities from a list of 42 possibilities. We clustered related missed opportunities into five categories.

Potentially preventable cases contained an average of 6.6 missed opportunities each.
There was a relationship between the index hospitalization and the readmission

Clinical Care Opportunities

- 71% of patients came back for a problem related to index hospital stay.

- Reviewers frequently noted that better managing and monitoring of the condition from index hospitalization might have prevented many of these readmissions.

- One fifth of physicians reported that the care at readmission might have been provided in an outpatient setting.

![Bar chart showing distribution of admitting diagnosis for hospital readmission.](image)

- Respiratory Conditions
- GI Conditions
- Infection
- Cardiac/Vascular Conditions
- CHF
- Renal Conditions
- Cognitive Impairment/Dementia
Many patients used the Emergency Room for follow up care

Clinical Care Opportunities

- When their conditions worsened, most patients went to the ED instead of contacting someone at Kaiser Permanente.

- Two thirds of patients did not contact KP before coming to the Emergency Department.

- 61% of outpatient physicians reported they were not aware of the patient’s worsening condition prior to readmission.
Risk Assessment

Care Planning/Coordination

- Patients did not always have their risk fully assessed at discharge.

Physician Opinion:
- 41% of providers interviewed reported that they could have predicted the readmission

Previous Utilization:
- Over half of patients had prior hospitalizations and/or ED visits in the last 6 months

Functional Status:
- 60% of patients were somewhat or fully dependent for activities of daily living (ADLs)
Referrals

Care Planning/Coordination

- Patients did not always receive referrals that might have been beneficial.

40% of patients might have benefited from additional referrals:

<table>
<thead>
<tr>
<th>Referral</th>
<th>Patients</th>
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</thead>
<tbody>
<tr>
<td>Inpatient Palliative</td>
<td>65</td>
</tr>
<tr>
<td>Outpatient Palliative</td>
<td>49</td>
</tr>
<tr>
<td>Chronic Conditions Management</td>
<td>49</td>
</tr>
<tr>
<td>Home Health</td>
<td>40</td>
</tr>
<tr>
<td>Social Work</td>
<td>36</td>
</tr>
<tr>
<td>Behavioral Health</td>
<td>16</td>
</tr>
<tr>
<td>Hospice</td>
<td>16</td>
</tr>
<tr>
<td>Specialist</td>
<td>12</td>
</tr>
</tbody>
</table>
Patient Discharge Instructions

Care Planning/Coordination

- Over half of discharge instructions did not specify who to call at Kaiser Permanente if patients needed help.

911 is often the only phone number given

Sometimes... many phone numbers are given
Follow Up Care

- Despite being seen 59% of the time and receiving post-discharge phone calls, patients were still readmitted.

MANY PATIENTS RECEIVED FOLLOW-UP
- 59% of patients attended a physician visit between hospitalizations
- 45% of patients received a follow-up phone call between hospitalizations

FOLLOW-UP PROTOCOL NOT SYSTEMATIC
- In 10% of cases, MD/RN team reviewers reported that the readmission might have been prevented if the patient had received a follow-up visit
- Individual medical centers did not always follow a uniform method of delivering follow-up

Range of Follow-up Across Medical Centers

<table>
<thead>
<tr>
<th></th>
<th>Least</th>
<th>Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outreach phone call post-discharge</td>
<td>20%</td>
<td>63%</td>
</tr>
<tr>
<td>Follow-up appointment made in the hospital</td>
<td>23%</td>
<td>76%</td>
</tr>
<tr>
<td>Follow-up Physician Visit within 5 days</td>
<td>17%</td>
<td>63%</td>
</tr>
</tbody>
</table>
Advance Care Planning

- Providers did not leverage programs for patients with advance care needs.

Most providers suspected their patients were at the end of life

- 65% of providers reported that they would not have been surprised if their patient died in the next year.

But many did not perceive a benefit for referring to an advance care program

- 66% did not think their patient would benefit from palliative care or hospice.

Others did identify a benefit but did not make the referral

- Almost half of physicians who reported that their patient would benefit from an advance care program had not referred their patient to a program.
Advance Care Planning

- Physicians explained why they did not discuss advance care planning with their patients.

**IT WOULD NOT BE WELL RECEIVED**
- “I know she is not open to or ready for that type of discussion.”
- “I felt he was not ready emotionally.”

**IT’S SOMEONE ELSE’S JOB**
- “I am only one of many physicians treating the patient.”
- “It was more appropriate for the Oncologist to have that conversation.”
- “Surgeon should bring it up.”

**NO TIME**
- “Every visit is so complicated and I didn’t have time to get to it.”
- “So many issues, I don't have the time to have the conversation in clinic.”

**IT DIDN’T OCCUR TO THEM**
- “I did not think about palliative care, do you think I should refer?”
- “I didn't think of it. It is probably a good idea.”
What did our members tell us

- Patients would have liked to know more about their health, prognosis, and treatment.

- 31% reported we could have explained their prognosis more clearly.

- 30% reported we could have explained things more clearly in general.

- 24% reported we could have talked to them more about their medications and why they take them.
Implications

This method of review uncovers important information that administrative data alone does not provide.

The four step process of chart review, patient and family caregiver interview, provider interview, and final assessment by an RN and MD team allowed certain themes to emerge that would have been difficult to detect with administrative data alone:

- Many readmitted patients are nearing the end of life
- Outpatient providers are usually unaware of their patient’s worsening condition prior to readmission
- Patients generally go to the emergency department rather than contacting their primary providers

Other quality improvement projects could apply this methodology to uncover valuable information to inform, guide, and motivate improvement.
Moving from Evaluation to Results
The Problem

“It feels like we are catapulting our patients out of the hospital!”
Our journey

2008
- Patient Centered Re-Design
- Medical Center Demonstration Projects

2009
- Medical Center Readmission Diagnostics
- Video Ethnography
- Voices of our Members Video Library
- Developed/Tested Transition Transition Bundle

2010
- Comprehensive Regional Implementation of Bundle
Our Patients Are Our Strongest Tool in Helping Get Us Where We Want To Go
We used evidence to guide our approach

- **Brian Jack**
  - Project RED:
    - Medication reconciliation
    - Standardized DC plan
    - Follow-up appointments
    - Outstanding tests
    - Post-discharge services
    - Written discharge plan for patient
    - Telephone reinforcement

- **Mary Naylor**
  - Multi-disciplinary care team
  - Advance Practice Nurse Transitional Care
  - Home visits
  - Telephone Follow-Up

- **Eric Coleman**
  - Four Pillars:
    - Medication self-management
    - Personal health record
    - Timely MD Follow-Up
    - Understanding “red flags”
How we improve care

- Effective clinical process
- Outstanding member experience
- Efficient and reliable operations
Transitions Clinical Process

Assessment → Planning → Management → Follow-up

Follow-up → Assessment
Improvement Plan

Old way of thinking

New way of thinking

ADMISSION → STAY → DISCHARGE → 30 DAYS POST
Improvement Plan

AIM

Create an integrated end to end transitions process for KPNW members to keep them safely at home (or at a care facility) after a hospitalization.

Objectives

- Reduce 30-day readmission rates from 12.1% to 10% for members receiving the intervention
- Improve patient satisfaction with their care experience
- Increase % of patients that get a PCP appointment in 5 days
### Patient Centered Transition Bundle

<table>
<thead>
<tr>
<th>What does the patient need?</th>
<th>Transition Bundle</th>
</tr>
</thead>
<tbody>
<tr>
<td>I will have what I need when I return home</td>
<td>▪ Risk Stratification with tailored care</td>
</tr>
<tr>
<td></td>
<td>▪ Standardized RN/CC Needs Assessment</td>
</tr>
<tr>
<td>I know when I should call and what number to use when I need help</td>
<td>▪ Specialized phone number on DC Instructions</td>
</tr>
<tr>
<td>My regular doctor will know what happened to me in the hospital</td>
<td>▪ Standardized Same Day Discharge Summary</td>
</tr>
<tr>
<td>I understand my medications, how to take them, and why I need them</td>
<td>▪ Pharmacist reviewing medications in hospital</td>
</tr>
<tr>
<td></td>
<td>▪ PharmD phone call (high risk)</td>
</tr>
<tr>
<td>I know someone will check on me when I am home.</td>
<td>▪ MD appointments made in hospital within 5 (high risk)to 10 days.</td>
</tr>
<tr>
<td></td>
<td>▪ RN follow up Call within 48 hours.</td>
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<tr>
<td></td>
<td>▪ RN case mgmt 30 days (high risk)</td>
</tr>
</tbody>
</table>
Transitions Bundle: Risk Stratification

Which patients are at high risk for readmission?

- Physician or RN believes the patient may be at risk for readmission
  OR
- Heart Failure Diagnosis
  OR
- Prior hospitalization in last 30 days
Transitions Bundle: Special Transitions Phone number

- Special Phone number on DC instructions for use between leaving the hospital and seeing PCP
- Calls are answered 24/7; triaged by an advice RN answered within 17 seconds
- RN can manage 50% of calls/pages hospitalist for other issues

Patients now can quickly access KP after leaving the hospital and get their questions answered

![Pie chart showing pilot call types: 42% Medications, 29% Vomiting, 13% Pain, 4% Fever, 4% Emergent Symptoms, 4% Routine Symptoms, 4% Incision Issue]
Transition Bundle: Standardized DC Summary

Hospitalists and PCPs collaborated on a simple DC summary, completed day patient leaves the hospital, that everyone LOVES.
Medications

Medication lists were not always accurate or in understandable language

List in hospital matched what patient was taking 57% of time
Transitions Bundle: Medications

Medication management must happen across settings

- **Hospital**
  - MD reconciles home/hospital
  - RN teaching/teach back
  - Pharmacist review of meds (high risk)

- **Home**
  - RN f/u call/review
  - Pharmacist calls patients once home (high risk)
  - PCP

- **SNF**
  - Pharmacist reviews meds for all patients going to SNF
Transitions Bundle: Follow Up

All patients get timely follow up

- **F/U Appointments**
  - Made in the hospital
  - High risk patients in 5 days
  - All others 10 days

- **F/U Phone Calls**
  - RN f/u call within 48 hours
  - RN case mgmt 30 days (high risk)
### My Concerns

**About My Diagnosis**
- I want to understand the medical terms.
- How long will I be sick?
- Will this disease go away?
- How will my lifestyle change?
- What help will I need at home?
- What should I be most concerned about?

**About My Medications**
- I don't want to take so many medications.
- I want to understand what my medications are for.
- I am concerned about the cost of medications.
- I need an easier way to organize all of my medications.
- Can I take medications instead of changing my diet?
- Will these medicines make me feel better?
- When will I know the medicine is working?
- What happens if I don't take my medicine?
- Which medicines do I have to take with food? Which do I take without food?
- What effects will this medicine have on my mood?
- I don't like some of my medications.
- When do I take each medicine?

**About My Diet**
- I am concerned about being able to prepare my meals.
- I don't like the foods that are being recommended.
- Where can I learn more about more healthy eating choices?
- The recommended foods sound expensive.
- How can I make my favorite foods more healthy?
- If I eat something I'm not supposed to, what happens?

**About My Activity**
- I'm not sure what types of activity can do.
- I am concerned about the stairs where I live.
- Using a walker is going to be hard for me.
- How do I get to the clinic if I cannot drive?
- I don't think I have enough help at home.
- I'm concerned about how I'll keep up with my house chores.
- How will I dress myself?
- Getting to the bathroom is hard.
- When can I drive?

**About My Other Concerns**
Results

% of patients with MD visit in 5 days improving

% of patient with appointments in 5 days is increasing

% Seen in PC or SC within 5 days of Discharge

% with an appt within 5 days

35%
40%
45%
50%
55%

Start of Work

Upward trend for 2010

2011 MHS Conference
Results

Patients seeing PCP sooner

Days to PCP appointment

Start of Work
Results

HCAHPS scores are improving

HCAHPS - Pt. Received Written Information

Start of Work

2011 MHS Conference
Results

Patients have increased access to Palliative Care Services

Number of Weekly IPC Consults at KPNW Sunnyside Hospital

UCL: 23.55
Mean: 10.73
Results

30 day readmission rates trending toward target in 2010

Target is 10%
Results:
Standardized Definition of 30 day readmission rates

NW had lowest rate of all the regions in first quarter of this year

All Cause 30-Day Readmission
By Regions - Overall
Quarterly Values for Q1-08 – Q1-10

Data are not risk adjusted.
## Transition Bundle Elements across KP regions

<table>
<thead>
<tr>
<th>Transition Tactics</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
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</thead>
<tbody>
<tr>
<td>Risk Stratification-Tailored care</td>
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<tr>
<td>Follow-up call 48 hours</td>
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<tr>
<td>Timely MD follow up appointments scheduled in hospital</td>
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<td></td>
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<tr>
<td>Medication Reconciliation redundancies</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Standardized same day DC summary</td>
<td></td>
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<tr>
<td>Special Transition phone # on DC instructions (expedited, immediate access to MD)</td>
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### Implementation Phase
- Blue

### Testing Phase/
Partial Implementation
- Red

### No activity
- Blank

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2011 MHS Conference
Thank you: Questions?
Appendix: References


**Video Ethnography**
**Informing & Motivating Action**

- **Ethnography**, also called “field work”, is a qualitative method developed by social scientists involving in-depth interviews and observation to understand, describe, and interpret experience, systems, organizations and cultures.

- **Video Ethnography** combines ethnography with video to capture data from interviews and observation for rapid analysis and communication to different audiences to inform and motivate decision-making and improvement.
Many ways of bringing patients into improvement

- Surveys
- Focus groups
- Video ethnography
- Readmission diagnostics case review
- Patient councils
- Patients on the QI team

More people

More compelling
Bringing The Patient Into The Room

- **Voices of our Members Library**
  - 50 videos created on a wide range of topics
  - Videos shared across the organization for education, training, and improvement with front line teams, nurses, physicians, and leadership
  - Videos shared outside the organization for educational purposes with purchasers, policy makers, and others

- **“Tool Kit on Video Ethnography” just created, now available to you**