Innovative Models of Health Service Delivery to Save Medicare (and People)

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Odyssey Program
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Let’s Think About…

• Some problems experienced by older adults in the hospital and the community
• Several innovative models of care that can help with these problems
• How to overcome the barriers in implementing and disseminating better care practices

Let’s Meet Walter

• Walter, 82, lives with his cat
• Emphysema, hypertension, heart failure, etc
• Multiple medications
• Multiple hospital admissions

Walter’s Gripses About Hospital Care

• “I can’t get nebs on time so I end up on the tube”
• “Food stinks”
• “Wake up in middle of night and can’t get to bathroom” / “They put a tube in me that I didn’t need and got a urine infection.”
• “No one talks to me”
• “I get confused – get tied down”
• “I always come home with a completely new set of medicines”

Hospital Safety Circa 1990s

Hospital Safety Over Time – Post IOM

• 10 NC hospitals, annual review of charts ’92 to ’07, n=2341
• 588 harms = Rate: 25.1 / 100 admits
• Harms:
  - 2.9% permanent
  - 8.5% life threatening
  - 2.4% caused or contributed to death
• Harms from procedures, medications, nosocomial infections, other therapies, diagnostic evaluations, falls
• No change over time in rate of harms

NEJM 2010;363:2124
How Common Are These Events?

<table>
<thead>
<tr>
<th>Event</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>ADL Decline</td>
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<tr>
<td>Urine incont</td>
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<tr>
<td>Delirium</td>
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<tr>
<td>NHP</td>
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Why We Need It

How it Helps

Spreading Success

Case Studies

Hospital at Home

Why We Need It

How it Helps

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Case Studies

Walter Got Acutely Ill...

• Bilobar community-acquired pneumonia

“I WILL NOT GO TO THE HOSPITAL.”

History of Hospital at Home

Determined who and what to treat

Developed eligibility criteria (JAGS 45:1066, 1997)

Evaluated patient acceptability of program (JAGS 45:825, 1998)

(Early experience with CMS)

Pilot Studies: clinical/econ feasibility (JAGS 47:607, 2898)

RFP to managed care organizations


Dissemination activities

Johns Hopkins Hospital At Home National Demonstration & Evaluation Study

Johns Hopkins University
School of Medicine & Public Health

Fallon Community Health Plan, Worcester, MA
Independent Health, Univera Health, SUNY Buffalo
Portland Oregon Veterans Administration Medical Center

Annals of Internal Medicine 2005;143:708-808
### Why We Need It

- 61% chose HAH care
- HAH is feasible and efficacious
- Fewer complications
- Higher satisfaction
- Lower costs of care

### How it Helps

- Less CG stress
- Better function
- High provider satisfaction

### Spreading Success

- 10 RCTs
- Increased satisfaction
- Less expensive

### Case Studies

- “I definitely would have ended up on a breathing machine if I had been in the hospital.”
- “It was great to get the attention I had from the nurses and to have the doctor see me at home.”
- “I didn’t have to worry about my cat.”

### Moving from Research to Practice 2005 - Present

- Spread the word
- Develop tools of technical assistance
- Implementation efforts
  - VA
  - Medicare managed care
  - FFS Medicare
  - Home health
- Commercial model

### Scaling HAH into a Nationwide Model is the New Frontier

- Goal: to transform the site of acute health care from the hospital to the home with a nationally scaled health services delivery organization
- Public-private partnership

### Substitutive HAH Meta-Analysis

<table>
<thead>
<tr>
<th>Study or Interventions</th>
<th>In-Hospital</th>
<th>HAH</th>
<th>Total</th>
<th>Mortality</th>
<th>V-Fixed Effect</th>
<th>OR 95% CI</th>
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<tr>
<td>HAH</td>
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<tr>
<td>10 RCTs</td>
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<tr>
<td>Hospital at Home®</td>
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<td>Case Studies</td>
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CMAJ 180:156, 2009

### The 500-bed hospital that isn’t there: the Victorian Department of Health review of the Hospital in the Home program

- Key decision 1994: reimburse HAH as inpatient service. Led to units being based in hospitals
- 2009: 32.4K admissions = 2.3% all inpatient admissions, 5.3% multiday admissions & 5% all bed days
- High satisfaction
- “Time to move HAH from the back door to the front door of the hospital”
Hospital at Home is One Element

The Ironic Business Case For Chronic Care In The Acute Care Setting
Patients with chronic illnesses already have an impact on the financial health of hospitals—and that impact is growing.
by Albert L. Su, Lynn H. Spangler, Sharon K. Inouye, R. Sean Morrison, and Brian Leff
Health Affairs 28:113-25, 2009

Why Can’t We Get Innovative Models Adopted and Disseminated in the US

• Not disease-specific
• Not a gizmo or a drug – care delivery change is very challenging
• Don’t produce revenue – savings don’t thrill CFOs
• Medicare barriers
• Some success with palliative care

Other Amazing Models

• Acute Care for Elder Units – ACE
• Hospital Elder Life Program – HELP
• Nurses Improving Care for HealthSystem Elders – NICHE
• Hospital-based palliative care
• Care transitions
• Practice based – Guided Care

Why We Need It

How It Helps

Spreading Success

Case Studies

The Medicare Innovations Collaborative
Testing solutions, advancing care, changing policy

• Develop a “portfolio approach” to improve healthcare delivery for complex multimorbid adults in the inpatient setting through real time experimentation with ready adopters
• Portfolio models (1) offer alternatives to hospitalization for Medicare beneficiaries, (2) effectively and efficiently care for hospitalized patients (3) transition patients out of the hospital effectively, reducing hospital readmissions
• Develop a policy feedback loop wherein the key policy barriers and enablers to improving care for complex multimorbid adults in the inpatient setting are identified and linked to policy efforts
Medicare Innovations Collaborative

Hospitals/Health Systems Adopting New Models of Care
Hospital at Home, ACE, NICHE, Palliative Care, HELP, Care Transitions

- Aurora Health (WI)
- Carolina Health Sys – NC
- Geisinger (PA)
- Lehigh Valley Health – PA
- Univ Hosp Care – OH
- Crouse (NY)

Sites collaborate
Technical assistance
Intensive implementation of models
Identify policy enablers and barriers
Identify best practices

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<table>
<thead>
<tr>
<th>Site</th>
<th>Models</th>
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<tbody>
<tr>
<td>Aurora Health</td>
<td>ACE to 43 programs, ACE Tracker into EMR, Expanded scope of NICHE</td>
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<tr>
<td>Carolina Health Sys</td>
<td>Developing plans to take portfolio model to 23-hospital system</td>
</tr>
<tr>
<td>Geisinger</td>
<td>Integrated 5 portfolio models: traveling ACE team throughout medical-surgical units, System-wide geriatric initiative launched</td>
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<tr>
<td>Lehigh Valley Health</td>
<td>NICHE implemented in 5 units including hospital-owned SNF, ACE to 2 community hospitals, NICHE to LTC, community hospitals, home health</td>
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<tr>
<td>Crouse</td>
<td>System-wide geriatric initiative launched</td>
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House Call Programs
Home-based Primary Care

Ms. Irene
- 91 year-old 2 weeks of mental and physical decline. Hx of severe dementia, diabetes, diffuse joint pains, 2 Seizure vs. fainting spells
- House call: “Sleeping 99% of the time” lethargic and talking less. Poor oral intake. “She was playing cards 2 weeks ago”
- Medicines: seizure med, tylenol w/ codeine, diuretic, aricept, namenda, antidepressant
  - Drowsy, dry mouth, heel sore

Usual Care for Ms Irene
- 911 to ER, admit to hospital
- Care by strangers, multiple FFS specialists
- Functional decline - long hospital stay
- ? SNF or inpatient rehab care
- ? Return home

Chronic Conditions and Expenditures to the Medicare Program

<table>
<thead>
<tr>
<th>Number of Chronic Conditions</th>
<th>Percent of Beneficiaries 65+</th>
<th>Percent Medicare Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>24%</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>21</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>18</td>
</tr>
<tr>
<td>7+</td>
<td>2</td>
<td>14</td>
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24% 66%
House-based Primary Care
Not in the “Body Part” Business

• Patient-centered, interdisciplinary, team-based continuous care over time for medical & social issues
• Continuity across settings
• Continuity across medical disciplines - careful selection of specialists
• Continuity over the natural history of illness & the patient’s “journey”
• Cost containment

House Call Programs -
Not in the “Body Part” Business

• Patient-centered, interdisciplinary, team-based continuity of care over time - builds trust, fosters pt / CG engagement in decision-making, care planning and management for medical AND social issues
• Continuity across setting & phases of illness - acute, chronic, terminal
• Continuity across medical disciplines - careful selection of specialists
• Continuity over the natural history of illness and the patient’s “journey” over the transitions from curative, maintenance, palliative and EOL with a geriatric focus

Resource Reductions with Home Based Primary Care Programs

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<tr>
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<tbody>
<tr>
<td>Total Costs</td>
<td>13-24%↓</td>
<td>32-48%↓</td>
<td>63%↓</td>
</tr>
<tr>
<td>Hospitalization</td>
<td>60-80%↓ BDOC</td>
<td>47%↓ Admits</td>
<td>74%↓ BDOC</td>
</tr>
<tr>
<td>Nursing Home use</td>
<td>88%-90%↓</td>
<td>75%↓</td>
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Why it Works: Targeted Population, Right Tool, Right Outcome

Independence at Home (IAH)

• ACA, Section 3024
• H.R. 2560 (Rep. Markey), S. 1131 (Sen. Wyden)
• Developed by AAHCP and IAH Coalition
• Bipartisan – Co-Sponsors: 13 Senators, 27 Reps
• Demonstration to begin 1/1/12 – 10K patients

IAH - Attacks Root of Current System on Payment and Quality

• Targets high cost MC benes with multi chronic conditions (> 2), hosp prior year, use of post-acute care w functional impairment
• Team care: “that includes MDs, RNs, PAs, pharmacists, and other health and social services staff as appropriate...”
• Requires as a condition of participation to:
  - Achieve annual minimum savings of 5%,
  - Improve outcomes, and achieve patient/caregiver satisfaction
• Share Savings: First 5% to Medicare, then share further savings with successful providers
• Metrics: relevant clinical outcomes, satisfaction, cost-reductions
How Did Ms. Irene Do?

• Offending medications stopped, oxygen and blood tests show only dehydration
• NP visit in 24-48 hrs., RN for heel sore
• Aide and family push fluids/food
• Calls from MD to son about goals
• Day 3 - Alert, eating and drinking
• Not admitted - got safer care at home

Keep in Mind…