NEW MODELS OF CARE AND APPROACHES TO PAYMENT

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September 30, 2014
Key issues related to in-home care

- Define population and needs
- Deliver combination of medical care and social support that is truly patient-centered, and is affordable
- Align funding with care and support models
- Measure quality and estimate value
  - Value = Quality / Cost
    - Cost must be risk-adjusted for specific populations
    - Quality measures: specific to care setting and population
    - Measures must be accurate and not too burdensome
Quality: Structure, Process, Outcome

Social Support System
- Engaged patient and family
- Defined preferences and goals
- Delivery system processes

Health Care System
- Patient experience
- Clinical results
- Costs
## Home Care User Categories

<table>
<thead>
<tr>
<th>A</th>
<th>No illness (acute or chronic); use self-help resources</th>
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<tbody>
<tr>
<td>B</td>
<td>Ambulatory, independent, not “sick”</td>
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<tr>
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<td>Some chronic health conditions exist</td>
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<tr>
<td>C</td>
<td>Younger; function (ADLs) limited by one condition</td>
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<td>Not “sick” often, but need continuous ADL support</td>
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<td>D</td>
<td>Older with chronic cognitive or functional impairment</td>
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<td>Acutely ill infrequently (low cost), need ADL support</td>
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<td>E</td>
<td>Post-acute care at end of discrete illness episode</td>
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<td>Rapid return to stable condition, home care ends</td>
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<tr>
<td>F</td>
<td>High co-morbidity &amp; illness burden, “sick”, high cost</td>
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|   | Acute care at home | Post-acute, in-home transitional care | Longitudinal in-home health care |

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VCU Medical Center
Virginia Commonwealth University
VCU School of Medicine
Who needs home-centered health care

- Chronically home-limited, in community
  - About 3 - 4 million, with 3+ ADL deficits
  - Mostly elderly, some younger adults and kids
    - 1% of elderly in community are bedfast
  - Wide range of conditions, high co-morbidity
  - Reduced life expectancy
    - Most are not hospice-eligible at any given time
  - Some are technology dependent (ventilators, etc.)

- Short-term home-limited subset
  - Another 2-3 million; acute illness/injury; hospice
Social Supports ... and... Health Care

- Friends + family, in-kind
- Paid personal care
- Transportation, food, shelter, safety
- Communication
- Insurance
- Financial resources

- Accessible
  - Mobile team care
- Coordinated
  - Providers, time, settings
- Comprehensive
- Aligned with goals and needs
Use of In-Home Services by Home-Limited Persons

- Personal Care
- Skilled Home Health
- Medical Care
- Durable Medical Equipment
Population Needs + Resource Use

**NEEDS**

- Sick, frail, co-morbid, functionally impaired: 10%
  - Costs (%): 70%
- Mostly ambulatory, have chronic health conditions that require treatment: 30%
  - Costs (%): 25%
- Limited or no illness burden, episodic care, prevention: 60%
  - Costs (%): 5%

**COSTS (%)**
Home care, “usual care”

- Facility-based medical care
  - Fee-for-service

- Intermittent skilled home health care
  - 60-day episodes (Medicare)
  - 12,000 + agencies in U.S.
  - Large existing workforce

- Chronic ADL support
  - Home health aides
  - Financial coverage criteria
  - Hourly, with approval

- Discontinuous skilled care, intermittent
- Weak medical model
- Slow response to urgent problems
- Inconsistent, variable ADL support
- Payment in silo’s, not aligned
Improvements to Usual Care

- OASIS + OBQI
  - Demonstration (1995)
    - 54 exemplar agencies
    - 27 states
    - 156,000 patients
    - 249,000 controls
    - 25% reduction in hospital admissions

- HHCAHPS

- Intermittent care
- Not consistently replicated
- Weak medical model
- Hospital admissions remained at 26%-29%

- Workforce issues in personal care

Newer Care Models

- Hospital at Home
- Transitional care (6 weeks, post-acute)
  - Coleman, Naylor, CCTP (ACA section 3026)
- Consultative
  - GRACE
- Risk contracts
  - P.A.C.E. (Program for All-Inclusive Care of the Elderly)
  - Special Needs Programs
- Home-based primary care
  - Veterans Affairs Home-Based Primary Care (HBPC)
  - Non-V.A. home-centered primary care
  - Independence at Home
Hospital at Home

- RCT
- Replicated in one or more care systems
- Focus on selected defined conditions
- Direct substitution for inpatient care
- Better care
- Lower cost (20%-30%)

- Small, intensive
- Needs a supportive system
  - FFS payment is inadequate…
  - Supplemental funding
  - Care integration
- Discontinuous model
- Limited availability

Transitional Care, Naylor

- RCT, 180 / group, 1992-6
- NP intensive bridge, 4 weeks, multiple home visits
- 6-week readmissions 10% vs. 25% (62% reduction)
- Hospital costs reduced
  - $3,093 lower in 6 months
  - 50% savings
  - Big bang for the buck

Transitional Care, Coleman

- RCT, 370 / group; 2002-5
- Coach model
  - Written care plan
  - Patient empowerment
  - Relatively light clinical touch
- 30-day readmissions lower
  - 8.3% vs. 11.9% (30% relative)
- Hospital costs reduced
  - $488 in 6 months

- Less intensive
  - Less ideal for sicker patients?
  - Less bang for the buck
  - Lower control group costs than Naylor
- More easily scaled
- Funding?

Arch Intern Med 2006; 166:1822–1828
Community-based Care Transitions Program (CCTP, ACA Section 3026)

- Contract with community-based organization (CBO)
- CBO partners with acute care hospitals;
  - high readmission rates
- CMMI pays direct cost of transition services ($500 M)
- 102 partnerships
  - 2011-2015

- Evaluation pending
- Short term model
  - Can it change local culture, process
  - Future funding?
- Intermittent: what happens when transition ends?
Consultative: GRACE

- RCT, 475 / group, 2002-4
- Patients have PCP
- NP structured quarterly home assessments, 3 years
- Care processes much better
- Hospitalizations lower for high risk subgroup (n=114) in year 2
  - 44% relative decrease


- Lower intensity model
- Not primary care; no urgent care
- Need experienced team
- Fiscal impact in high risk quartile
- Funding?
Comprehensive, PACE

- Full risk contract
- Medicare + Medicaid duals, NH eligible
- Adult day health center
- Team care
- Primary care = PACE
- Home care included
- Institutional costs lower

- Clinical model works
- Expensive
- Capital required, + risk
- Significant overhead
- Cost shift vs. savings?
- Transfers primary care
- Transfers insurance
- Slow growth, low census

Comprehensive, V.A. HBPC

- Before + after cohort
- 9,426 patients, 2006
- Longitudinal, team-based care at home funded by VA
- “Too sick to go to clinic”
- Reduced costs 13.4%
  - VA + Medicare costs lower
  - Less hospital and NH use
  - More home care use

Model works
- Scalable in the V.A.
  - Strategic investment made
- Expensive
  - $10,000 - $13,000
  - Targeting essential

Comprehensive, Non-VA Home-Centered Care

- Case-control cohort
  - Risk-adjusted match
- 721 patients, 2004-8
- Team model: medical home care + network
- Costs reduced $8,477; 17% in 2 years
  - High risk had 31% savings
  - Hospital, NH costs less
  - More home care, hospice

- Better care
  - lower cost
- Longitudinal
  - patient-centered
- Expensive
  - Targeting required
- Experienced team required - workforce
- FFS payments do not cover cost

Independence at Home: ACA Section 3024

- Sick patients
  - Hospital stay
  - Post-acute care use
  - 2+ ADLs, 2+ serious chronic conditions
- House call program
- Quality measures
- 5% minimum savings
- Gain-share payment
- 18 sites, 10,000 persons

- Gain share payments are key to fund model
  - Risk-adjustment key in estimating savings
- Varied organizations being tested
- Expansion will require legislation
Strategies that have not worked well for this frail population

- Care coordination independent of primary care
  - Medicare Coordinated Care demo, others

- PCMH, as usually implemented
  - Guided Care design, PGP demo, typical PCMH

- Many ACO and MCO care models
Office-Based Care

Chronic diseases but functional: regular office care

No disease: episodic and preventive care

Serious illness develops

Evaluate co-morbidity and risk

Transitional Care Zone

High risk

Intensive transitional care team model

Intermediate risk

Guided or coached post-acute care & rehab

Chronically homebound?

Mobile Chronic Care Team Model

Low risk
Value, Quality, Relativity

- Many accepted "standards of care"
- Statins
  - 3% absolute risk reduction
  - 800 / 24,000 benefit
  - No benefit in the very frail
- Drug-eluting stents
- AICDs
- Hospitalists
- And so on……

- In-home team care costs money, but…
- If done well, coordinated well, and targeted well
  - better for patients
  - saves money
  - better for society

*It is time to act*