The Invisible Homebound: Developing Quality Measures and a Path to Value-Based Care for Home-Based Medical Care

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Let’s Think About...

• The spectrum of home-based care
• What we know about people who are homebound
• Home-based medical care
• Measuring quality of care in home-based primary care and home-based palliative care – measure development
• How to enter into value based care in the context of MACRA / MIPS
The Spectrum of Home-Based Care

- Informal Services
- Formal Personal Care Services
- Medicare Skilled Home Health Care
- Home-Based Primary Care
- Hospital at Home

- Low acuity: Chronic care, little or no MD involvement
- High acuity: Acute care, high level MD involvement

- Patient volume:
  - Informal Services: 10-15M
  - Formal Personal Care Services: 2M
  - Medicare Skilled Home Health Care: 3.4M
  - Home-Based Primary Care: 500 K
  - Hospital at Home: 1-2K
What do we Know about People who are Homebound?
• National Health and Aging Trends Study (NHATS)
• Population-based study
• Random sample > 65 Medicare enrollment rolls
• In-person interviews + physical and cognitive performance assessments
• Our N = 7603 non-NH subjects
• NHATS had no predefined measure of homebound – capacity and ability approach
<table>
<thead>
<tr>
<th>Level</th>
<th>Definition</th>
<th>%</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely Homebound</td>
<td>Never went out in last month</td>
<td>1.1%</td>
<td>395,422</td>
</tr>
<tr>
<td>Mostly Homebound</td>
<td>Rarely (weekly or less) in last month</td>
<td>4.5%</td>
<td>1.5M</td>
</tr>
<tr>
<td>Semi homebound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never by self</td>
<td>Out at least sometimes (twice per week) but never by self</td>
<td>3.3%</td>
<td>1.5M</td>
</tr>
<tr>
<td>Needs help or has difficulty</td>
<td>Out at least sometimes (twice per week) but needs help or has difficulty</td>
<td>11.8%</td>
<td>4.1M</td>
</tr>
<tr>
<td>Not Homebound</td>
<td>Out &gt;= twice weekly without help or difficulty</td>
<td>79%</td>
<td>28M</td>
</tr>
</tbody>
</table>
Frequency/Ability to Leave the Home Among Community-dwelling Medicare Beneficiaries Age ≥ 65

THOSE WHO NEVER GO OUT (1.1%)

THOSE WHO RARELY GO OUT (4.5%)

THOSE WHO GO OUT SOME DAYS (10.1%)

THOSE WHO GO OUT MOST DAYS (15.3%) 

Not homebound

THOSE WHO GO OUT EVERY DAY (68.9%) 

Not homebound
Health and Function by Homebound Status

- Self Rep
- Depression PHQ2
- Dementia possible or prob
- Can walk .6 blocks
- Hosp w/in 12 mos

%
The Homebound are Not Like You and Me

• More chronic illness burden
• Worse health status
• Greater functional impairment
• Limited social capital
So, how should we care for the homebound?
Ms. Irene

- 91 year-old: severe dementia, CHF, DM2, severe arthritis, incontinence
- “Just over income” for Medicaid home services
- Unable to access primary care, No PCP visit in 5 years; meds refilled by phone
- 911 to ER, admit to hospital
- Care by strangers, multiple FFS specialists feeding frenzy
- Leaves hospital worse for wear – multiple SNF, HH episodes
- 20 admissions over 3 years
Home-Based Primary Care – Focuses on Cement, Not Just Bricks

- **Target**: patients with MCCs, functional impairment, limited social capital, and their caregivers
- Continuous, comprehensive, longitudinal medical care in a patient’s home
- Strong geri, med, (pall care) skill sets
- Interdisciplinary, coordinate medical AND social services -
- Extraordinary means to prevent crises and support / empower caregivers / family
- 24/7 ready access to care
- **Not in the body part business! A model that builds trust!**
When Cared for in Home-Based Primary Care

- 5 years at home
  - 24/7 bedside care by daughter, aides, family
  - 85 house calls (routine and urgent)
  - SW and aide support, DME, Home X-rays/Labs/RN
- 5 years- 1 ER visit, 2 hospital admits
## Effects of Home-Based Primary Care on Medicare Costs in High-Risk Elders

K. Eric De Jonge, MD,* Namirah Jamshed, MBBS,* Daniel Gilden, MS,† Joanna Kubisiak, MPH,† Stephanie R. Bruce, MD,* and George Taler, MD*

<table>
<thead>
<tr>
<th></th>
<th>Cases</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare total costs (unadjusted)</td>
<td>$44,455</td>
<td>$50,977</td>
</tr>
<tr>
<td>Hospital costs</td>
<td>$17,805</td>
<td>$22,096</td>
</tr>
<tr>
<td>SNF costs</td>
<td>$4,821</td>
<td>$6,098</td>
</tr>
<tr>
<td>Home health costs</td>
<td>$6,579</td>
<td>$4,169</td>
</tr>
<tr>
<td>Hospice costs</td>
<td>$3,144</td>
<td>$1,505</td>
</tr>
<tr>
<td>Subspecialty visits</td>
<td>23% fewer visits</td>
<td></td>
</tr>
<tr>
<td>Generalist visits</td>
<td>105% more visits</td>
<td></td>
</tr>
<tr>
<td>Adjusted costs</td>
<td>17% lower costs = $8,477 less per beneficiary</td>
<td></td>
</tr>
</tbody>
</table>

- 1-2 M need such care
- Save $4k/pt
- $4-8 B/yr

JAGS 62:1954, 2014
HBPC Patient Experience - Qualitative

- Access to care and providers - phone contact 24/7
- Care coordination
- Establishment of trusting relationships
- Care team “part of the family”

UCSF House Calls Program

- Access to care and providers - phone contact 24/7
- Care coordination
- Goal attainment
Systematic Review of Outcomes from Home-Based Primary Care Programs for Homebound Older Adults

<table>
<thead>
<tr>
<th>Outcome</th>
<th># Studies</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ED Visits</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td>Hospitalizations</td>
<td>9</td>
<td>30%</td>
</tr>
<tr>
<td>Hospital BDOC</td>
<td>4</td>
<td>37-50%</td>
</tr>
<tr>
<td>LTC Admits</td>
<td>3</td>
<td>10-20%</td>
</tr>
<tr>
<td>LTC BDOC</td>
<td>1</td>
<td>88%</td>
</tr>
<tr>
<td>Costs</td>
<td>4</td>
<td>24%</td>
</tr>
<tr>
<td>Satisfaction/CG QOL</td>
<td>5</td>
<td>Better</td>
</tr>
</tbody>
</table>

- 8 / 9 substantial effect ≥ 1 outcome
- 6 with three core components:
  - Inter-professional care teams
  - Regular inter-professional care meetings
  - After hours support

JAGS 62:2243, 2014
CMMI Independence at Home (IAH) Demonstration

- 17 Sites
- Average savings of $3k / beneficiary
- CMS awarded $11.7M in shared savings

- Non IAH –
  - VPA
  - Landmark

How House Calls Can Cut Medical Costs. WSJ Sept 27, 2015
Developing Quality Measures and a Path to Value-Based Care for Home-Based Medical Care – The Journey
Our Journey Started in 2012...

- Recognized that the shift to value-based care was accelerating

- Home-based medical care MUST be able to demonstrate value to all relevant stakeholders

- Challenge: lack of appropriate quality indicators & mechanism to report quality

- Stakeholders at risk for lack of setting and population-specific measures developed by appropriate professionals
Value-Based Care for Home-Based Medical Care?

• Most quality indicators are disease specific and not applicable to those with:
  • MCCs
  • Functional limitations
  • Limited social capital
  • Who are home-limited
So, Our Game Plan...

- Learn more about home-based medical care practices
- Create a network to...
  - Develop and test measures
  - Test and implement a registry
- Develop measures that...
  - Make sense for home-based medical care
  - Are validated in homebound populations
- Develop and implement a practice-based registry for...
  - Benchmarking and a learning community for practice-based quality improvement
  - Meeting quality reporting requirements – (non) PQRS, Meaningful Use (MU), value-based care all in the contexts of MIPS, MACRA
- Create a way for the field to enter into value-based care
58-question survey to all AAHCM members, 272 practices

Range of practice types – size, biz model, provider types, approaches to quality of care issues

1/3 house calls practices use a defined QI process

Substantial proportion of practices engage in activities that may feed into QI activities: team meetings (48%), pt and CG surveys (50%), collects and monitors Qis (49%), use of QI process (33%), use of EMR (88%)

Majority of practices would be amenable to participate in QI process if provided with data (90%)

The National Home-Based Primary Care and Palliative Care Network

Created to develop quality indicators for the field, practice-based registry, tools for practice-based quality improvement

- **12 Exemplar Practices**
- **Professional Societies**
  - American Academy. of Hospice/Palliative Medicine
  - American Academy of Home Care Medicine
  - American Geriatrics Society
- **Consumer / Patient Advocacy**
  - Kaiser Family Foundation
  - National Partner. Women & Families
  - AARP Public Policy Institute
The Invisible Homebound: Setting Quality-Of-Care Standards For Home-Based Primary And Palliative Care
Semi-structured Interviews with all Network Members, Patients, Caregivers

Comprehensive Literature Review

10 Domains
32 QOC Standards

Measure Mapping*

286 QIs Mapped to 20/32 Standards

Initial vetting QIs by Network Members validity/feasibility – 16 Calls

98 QIs

Rand Modified Delphi Process

Rating of QIs for Feasibility/validity

20 QIs – Initial Version of NHBPCPCN Indicator Set
Quality of Care Domains for Home-Based Primary and Palliative Care

1. Assessment
2. Care Coordination
3. Safety
4. Quality of Life
5. Provider Competency
6. Goal Attainment
7. Education
8. Access
9. Patient and Caregiver Experience
10. Cost/Affordable Care
<table>
<thead>
<tr>
<th>Domain</th>
<th>Measure topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Pain, constipation, depression, functional status, alcohol use, preferred language, vision and hearing, elder mistreatment and abuse, fall risk</td>
</tr>
<tr>
<td>Safety</td>
<td>Drug regimen review, addressing medications in context of new cognitive decline, reconciliation of medication changes after hospital discharge</td>
</tr>
<tr>
<td>QOL</td>
<td>Offering treatment for depression, flu vax</td>
</tr>
<tr>
<td>Access to services</td>
<td>Timely hospice referral</td>
</tr>
<tr>
<td>Goal Attainment</td>
<td>Discussion of preferences for life sustaining treatment</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>Timely follow up after hospital discharge</td>
</tr>
<tr>
<td>Patient and CG Experience</td>
<td>PROs – provider’s ability to be caring and inspire trust, access</td>
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# Gap Measurement Areas

<table>
<thead>
<tr>
<th>Domain</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assessment</strong></td>
<td>Treatment burden experienced by patients and caregivers</td>
</tr>
<tr>
<td>Care Coordination</td>
<td>Identify and use appropriate community resources</td>
</tr>
<tr>
<td></td>
<td>Ensure that all team members have access to key patient information</td>
</tr>
<tr>
<td></td>
<td>Assure that the team is notified of sentinel events</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Address abuse and neglect</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Optimize comfort and safety of home environment</td>
</tr>
<tr>
<td></td>
<td>Reduce treatment burden</td>
</tr>
<tr>
<td>Provider Competency</td>
<td>Know how to manage medical problems in the home</td>
</tr>
<tr>
<td></td>
<td>Engage in effective interpersonal communication</td>
</tr>
<tr>
<td>Education</td>
<td>Support patient and caregiver self-management</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Involve medicine, social work and nursing at minimum in provision of patient care</td>
</tr>
<tr>
<td>Pt CG Experience</td>
<td>Manage patient and caregiver stressors</td>
</tr>
<tr>
<td></td>
<td>Minimize wait time for non-urgent visits</td>
</tr>
<tr>
<td>Cost / Affordable Care</td>
<td>Match enrollment to patient selection criteria</td>
</tr>
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Current Work and Next Steps

• QIs v1 in hand Registry v1.0 developed
• Performed basic testing of v1 of the QIs
• Developed measures to fill some of the gap areas
• Working with the relevant professional societies, including AAHPM
• Collaborating with other organizations to strengthen and not undercut the work, i.e. CAPC, NQF, CMS, VA
• Develop paths to value-based care...
Two Paths to Value-Based Care in Home-Based Medical Care

Initial Developed Set of Quality Measures for Home-based Medical Care

Development and testing of additional Gap Measures

Development of Measures for Value-based Reimbursement

Development of Scalable Version 2.0 of Registry

Qualified Clinical Data Registry (QCDR)

Practice-based Quality Improvement Learning Community

NQF Endorsement Process for use of Measure in PQRS

PQRS Measures
Measure Once Cut Multiple Times with a Qualified Clinical Data Registry (QCDR)

• Non-PQRS quality indicators for value-based payment
• Meaningful Use
• Value-based care
• Benchmarking of clinical practice
• Practice-based quality improvement
• Learning Collaborative of practices
• Comparative Effectiveness Research
Summary

- Homebound adults are a high-need, high cost population that can benefit from home-based primary care and palliative care
- Homebound require a population and setting-specific approach to quality measurement and professionals should lead this effort
- With rapid movement to value-based care, the professionals need to lead efforts to define quality
- Measure development is challenging
- QCDRs are a powerful multipurpose tool