Changing service delivery by focusing on prevention and function

Sarah L. Szanton, PhD ANP FAAN
Professor
Johns Hopkins School of Nursing
Johns Hopkins Bloomberg School of Public Health
Director, Center for Innovative Care in Aging
sszanto1@jhu.edu

Alice Bonner, PhD, RN
Director of Strategic Partnerships for CAPABLE
abonner9@jhu.edu
Function as target for better fiscal, population health

- Health systems don’t generally cover function in a preventive way – often unaddressed
- Only after an event has occurred
- Addressing function can be expensive
- But as shift to value happens, health systems and aging agencies may start
Relative Risk of Being in the Top 5% of Health Care Spenders, 2006

<table>
<thead>
<tr>
<th>Group</th>
<th>Relative Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everyone</td>
<td>1</td>
</tr>
<tr>
<td>No Functional Limitation &amp; No Chronic</td>
<td>0.2</td>
</tr>
<tr>
<td>Chronic Only</td>
<td>0.8</td>
</tr>
<tr>
<td>Functional Limitation Only</td>
<td>0.8</td>
</tr>
<tr>
<td>1+ Chronic</td>
<td>1.8</td>
</tr>
<tr>
<td>2+ Chronic</td>
<td>2.7</td>
</tr>
<tr>
<td>3+ Chronic</td>
<td>3.6</td>
</tr>
<tr>
<td>Chronic and Functional Limitation</td>
<td>4.3</td>
</tr>
<tr>
<td>Received Help with ADL/IADL</td>
<td>6.1</td>
</tr>
<tr>
<td>Received Help with ADL/IADL and 1+Chronic</td>
<td>6.6</td>
</tr>
<tr>
<td>Received Help with ADL/IADL and 2+Chronic</td>
<td>7.1</td>
</tr>
<tr>
<td>Received Help with ADL/IADL and 3+Chronic</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Aging and financial strain

- 30% of older adults live on less than $23,000/yr
- Assisted living costs at least $32,000/yr
- Less than 10% can afford a retirement community
- 25% have no retirement savings
CAPABLE Approach

• Age in place = person and home
• Older adult is the expert
• Professionals use specialized knowledge only to elicit, support what older adult wants
• ↑ Physical function ↓ depression
• ↓ hospitalization, ↓ nursing home
Mrs. B
Her Hazardous floor
Perfect time and opportunity to improve health

QUALITY

QUANTITY
CAPABLE Team - at a glance

Person/Participant

- Self-assessment
- Readiness to change
- Goal setting – participant driven & priorities set by participant
- Brainstorming options/solutions; team in consultative role
- Work/actions to progress between each visit – Action Plan
- Exercises, education, practice
- Learn and apply tips for safe independent living

OT

- Functional/Mobility assessment
- Home risk; modifications & equipment needs
- Fall prevention

RN

- Pain, depression, medication review, exercise
- Key health issues/risks
- Participant priorities

Handyman

- Receives work order; confers with participant
- Obtains equipment, installs instruction/guidance for participant

Created by Dr. Deborah Paone for the Special Needs Alliance, under a grant from The SCAN Foundation and The Commonwealth Fund, based on information offered by Johns Hopkins University School of Nursing via the CAPABLE website found at: https://learn.nursing.jhu.edu/instruments-interventions/CAPABLE/CAPABLE ; 2018.
CAPABLE

• Focused on individual strengths and goals in self-care (ADLs and IADL)
• Client-directed ≠ client-centered
• Handyman, Nurse and Occupational Therapist (OT)
• OT: 6 visits; RN:4 visits; Handyman: $1300 budget over 4 months
• Total program cost ~ $2800-3000 per client
Why do we see improvement?

• Function is modifiable
• Person/environment fit
• Unleashing participants’ motivation
• Their own strengths and goals
• Providing resources to achieve those goals
• Builds self-efficacy for new challenges
MRS. D: STUCK TO UNSTUCK–

• Confused, over medicated

• 30 minutes to walk to the bathroom

• Sat on commode all day as a chair, isolated

• CAPABLE: medication schedule, chair along hall, chair at top of stairs, railing on both sides, bed risers,

• No longer stuck in her room
27 Implementation Sites
Exhibit 1. Changes from Baseline to Follow-up in Activities of Daily Living Limitations and Instrumental Activities of Daily Living Limitations
Exhibit 2. Changes from Baseline to Follow-up in Depressive Symptoms and Home Hazards

Depressive symptoms

- Improve: 52.9%
- Stay the Same: 16.5%
- Worsen: 30.6%

Home Hazards

- Improve: 77.6%
- Stay the Same: 12.2%
- Worsen: 10.2%
## Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use

By Sarah Ruiz, Lynne Page Snyder, Christina Rotondo, Caitlin Cross-Barnet, Erin Murphy Colligan, and Katherine Giuriceo

**Health Affairs, 2017**

**CAPABLE saves Medicare $>10k per patient per year**

<table>
<thead>
<tr>
<th>Model</th>
<th>Hospitalization</th>
<th>ED visit</th>
<th>Medicare Expend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPABLE (over a 2-year period)</strong></td>
<td>Per quarter, per 1,000 patients</td>
<td>95% CI</td>
<td>Per quarter, per patient</td>
</tr>
<tr>
<td>ABC (over a 3-year period)</td>
<td>3</td>
<td>-36, 42</td>
<td>-26</td>
</tr>
<tr>
<td><strong>CAPABLE (over a 2-year period)</strong></td>
<td>3</td>
<td>-36, 42</td>
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</tr>
<tr>
<td>CAPABLE (over a 2-year period)</td>
<td>3</td>
<td>-36, 42</td>
<td>-26</td>
</tr>
<tr>
<td>Stroke Mobile (over a 2-year period)</td>
<td>-52b*</td>
<td>-113, -8</td>
<td>35</td>
</tr>
<tr>
<td>DASH (over a 3-year period)</td>
<td>-17**</td>
<td>-25, -9</td>
<td>-24***</td>
</tr>
<tr>
<td>AIM (in the last month of life, over a 3-year period)</td>
<td>-76***</td>
<td>-100, -51</td>
<td>30***</td>
</tr>
<tr>
<td><strong>CAPABLE (over a 2-year period)</strong></td>
<td>3</td>
<td>-36, 42</td>
<td>-26</td>
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<tr>
<td><strong>CAPABLE (over a 2-year period)</strong></td>
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<td>-26</td>
</tr>
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</table>

**95% CI**

**p <0.05 From Ru Health Affairs, 2017**
Driving the savings

• In Ruiz et al (prior slide) driving the savings are
  – Reduced readmissions
  – Reduced observation stays
  – Decreased specialty care
  – Reduced nursing home days
    (see key on next slide)
Monthly Medicaid cost for a hypothetical cohort of 1,000 people per service type and study arm

Control ($2.2M)
- $177,065
- $1,160,381
- $340,678
- $189,620
- $83,471
- $167,687
- $59,981
- $43,133
- $0

Treatment ($1.4M)
- $457,890
- $329,504
- $183,785
- $77,470
- $233,921
- $4,651
- $0

Legend:
1 = LTC
2 = INPT
3 = OPT+ DENT
4 = PHYS
5 = SPEC
6 = HHLTH
7 = PHARM
9 = MCOCAP
Key Steps Toward Implementation

1. Contact Johns Hopkins CAPABLE team
2. Lead organization - commitment from leadership to explore CAPABLE
3. Identify key program champion – person who will lead effort at the early stage
4. Consider partner approach – ensure healthcare and housing modifications components will be effectively and professionally addressed
5. Secure funding for start-up
6. Scale initial implementation/start-up to match capacity and funding
7. Establish a pilot workplan – timeframe, milestones, what and how data will be collected, key metrics to evaluate how the pilot went
8. Hire/contract for staff; train team through JHU
9. “Dry run” to test workflow and communication and ensure readiness
Tips & Strategies before Adopting CAPABLE

- **Pilot funding** - Consider funders within your region with a focus on older adults “aging in place”
- Prepare a simple proposal or Letter of Interest (e.g., 2-3 pages)
- **Healthcare organization as lead** - reach out to potential community-based service organizations that help build, repair or modify home settings.
- **Community service organization as lead** - reach out to potential healthcare partners such as home health care agencies, care management organizations, and healthcare delivery systems.
- **Referral and Outreach** – Begin exploring the feasibility to attract participants to the program; engage partners, local Area Agencies on Aging and other key informants to test assumptions about who, how many, and through what process people will accept an invitation to participate in CAPABLE
MRS. H.

- Asthma, DM, HTN, Arthritis
- Breathless – limited ADLs, couldn’t walk up steps, or outside house
- CAPABLE:
  - Connected with PCP for long acting inhalers
  - Switched from ibuprofen to acetaminophen
  - Taught and practiced CAPABLE exercises
  - Made it easier to take a bath -> decreased pain
  - Got her a super ear
  - Put in railings, repaired linoleum floor
Addressing Function

• Poor function is costly
• It’s what older adults care about
• It’s virtually ignored in medical care
• It is modifiable
How to change policy
PAYER POSSIBILITIES (TRIPLE AIM)

- CMS could scale – PTAC has given their support
- Accountable Care Organizations
- Medicare Advantage Plans
- PACE
- Medicaid waivers
Policy levers

• Chronic Care Act of 2018
  – Flexibility to cover “non-medical” costs
  – Permanently authorizes special needs plans (SNPs)

• PTAC – Medicare coverage

• HUD – appropriations

• State Public Health Policies
Select CAPABLE References

Contact Johns Hopkins CAPABLE Team:

• Sarah Szanton - Founder sarah.szanton@jhu.edu

• Deborah Paone – Director of Implementation & Evaluation dpaone1@jhu.edu

• Alice Bonner – Director of Strategic Partnerships abonner9@jhu.edu
Home modification and repair for homebound older adults in New York City

Katherine Ornstein, PhD, MPH
Associate Professor,
Brookdale Department of Geriatrics and Palliative Medicine
Research Director,
Institute for Care Innovations at Home and Mount Sinai at Home
Mount Sinai at Home

Comprehensive portfolio of home-based services that extends capacity to treat patients beyond hospitals

- Improved outcomes and patient satisfaction
- Scalable across locations, populations, and conditions
- Insurance reimbursable business model

Primary Care  Palliative Care  Urgent Care  Acute Care  Post-acute Care
The Mount Sinai Visiting Doctors Program

• The Mount Sinai Visiting Doctors (MSVD) program has successfully provided home-based primary and palliative care to vulnerable homebound adults in Manhattan for nearly 25 years.

• MSVD currently cares for more than 1800 patients annually

• 16 home visit physicians, 5 nurse practitioner, 5 social workers, 4 office-based RNs, 7 administrative assistants, 1 practice manager
How can we better meet the needs of our patients?

- In 2019 with funding from the Isaac H. Tuttle Fund we launched the **Home Modification and Repair Program** in order to help homebound patients by improving safety in patient homes via environmental modifications and/or repairs.

- Key elements:
  - Inclusion of patients with dementia
  - Led by social workers
  - Focused on patient and caregiver directed goals
Protocol

**Identify**
- Patients identified by Social Workers or Providers

**Assess**
- Assessment completed with patient
- ADLS/IADLS
- Emphasis on conversation and wants/needs vocalized by patient, family members, caregivers

**Data Entry**
- Data entered into patient tracking spread sheet

**Orders**
- Decision making on how to order materials and complete needed repairs

**Follow Up**
- Follow up on orders
- Track timing
- Confirm orders were delivered, assembled and are functioning

**Reassess**
- Reassess ADLs and IADLs
- Ask for feedback
Program status

<table>
<thead>
<tr>
<th>Requested items</th>
<th>Patients served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital bed</td>
<td>First patient assessed August 2019!</td>
</tr>
<tr>
<td>Toilet seat raiser</td>
<td>16 patients have been formally assessed by their social worker</td>
</tr>
<tr>
<td>Shower/tub transfer bench</td>
<td>4 patients have received new items</td>
</tr>
<tr>
<td>Tile repairs</td>
<td>Only 2 patients have not required any modifications</td>
</tr>
<tr>
<td>Bedside table with wheels</td>
<td>The majority of patients have dementia</td>
</tr>
<tr>
<td>Wall and ceiling plastering</td>
<td></td>
</tr>
<tr>
<td>Arm chairs</td>
<td></td>
</tr>
</tbody>
</table>

- 16 patients have been formally assessed by their social worker.
- 4 patients have received new items.
- Only 2 patients have not required any modifications.
- The majority of patients have dementia.

Patients served: First patient assessed August 2019!
Mrs. R received an over the bed table and a bariatric mattress for her hospital bed. She can now eat better while sitting in her bed in a clean new mattress. I used to get calls from her all the time .... Her caregivers are so relieved!"

“Mr. E is completely bed bound and received a new electric hospital bed. His bed was stuck in one position for months... I tried to get his insurance to fix it, but .... it was causing a lot of stress to the patient because he was losing his home health aides because changing and turning him in bed was very difficult. I spent hours on the phone trying to solve the issue... he is very happy and grateful and so am I.”
Challenges and lessons

- Communication with vendors
- Ensuring seamless delivery and set up
- Implementation within care team
- Reducing social worker burnout
- Assessments alone are useful!
Thank you

Isaac H. Tuttle Fund

Learn About Our Programs

**Mount Sinai Visiting Doctors**


**Institute for Care Innovations at Home**

[https://icahn.mssm.edu/research/institute-care-innovations-home](https://icahn.mssm.edu/research/institute-care-innovations-home)

Katherine Ornstein, PhD MPH ([Katherine.Ornstein@mssm.edu](mailto:Katherine.Ornstein@mssm.edu))
Dementia-Friendly Modifications
A Key Component of At-Home Patient Care

Rosemary Bakker, MS
Age-Friendly Design, Inc.
Chair Transferring
Reducing Fall Risk/Pressure Ulcer Incidence

Before                           After
Teaching, Demonstrating, & Working with Caregivers Is Essential To Success
Walking Through the Apartment
Cleaning Liquids Mixed With Grooming Products

Before

After
Falls, Flooring & Misperceptions
Reducing Fall Risk with Client Buy-In

Before                                    After
Assess & Reassess: A Few Inches Can Make A Modification Successful (or not!)
Accessibility & Safe Handholds

Outside the Bathroom
Dementia-Friendly Modifications

Person    Caregiver    Environment

For More Information

Rosemary Bakker               rbakker@agefriendlydesign.com

agefriendlydesign.com