Panel: Digital Innovations and the Long Term Care Workforce: What is Needed for Success?

Professor Paul Osterman, PhD ’76, Nanyang Technological University Professor of Human Resources and Management, Co-Director, MIT Sloan Institute for Work and Employment Research, MIT Sloan School of Management

Thomas H. Grape, Founder, Chairman, and CEO, Benchmark Senior Living

Carol Raphael, Vice Chair of the Board for the Commonwealth Care Alliance, Senior Advisor, Manatt Health Solutions
Digital Innovations and the Long-term Care Workforce: National Perspective and Background

Carol Raphael  
Senior Advisor  
Manatt Health

MIT Health Innovations Conference  
November 29, 2017
Agenda

Importance of Long Term Care

Challenges in the Long Term Care System

The Future of Long Term Care

Takeaways
Long-term care (LTC) services differ from other parts of the health care system in that the duration of services is long term, and include social supports in addition to medical services.

**What is Long-term Care?**

A range of services and supports an individual needs to meet personal care and daily routine needs. Function based, holistic, and has few boundaries between medical and non-medical components.

**Mostly non-medical assistance with:**
- Activities of daily living (bathing, dressing, etc.)
- Instrumental Activities of Daily Living (Housework, personal finances, groceries, etc.)

**Post-Acute Care (PAC)**
A range of medical services that support an individual’s continued recovery from illness or management of a chronic illness.

**Medical care includes:**
- Home health
- Skilled nursing
- Inpatient/Outpatient Rehab
- Long-term acute care
- Hospice/palliative care

**Long-Term Services & Supports (LTSS)**
A range of services and supports an individual needs to meet personal care and daily routine needs. Function based, holistic, and has few boundaries between medical and non-medical components.

Medicare is the primary payer, but Medicaid and commercial insurers pay too.

Medicaid is the primary payer, but the majority of care is provided by informal caregivers and is unpaid.
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Takeaways
People of All Ages Use LTC, But Needs Vary Significantly

Nearly half of the over 12 million people needing long-term care are under age 65, and many have medium to high needs.
The Elderly Population in the U.S. is Growing

Demographic changes and medical advances are increasing the demand for LTC

Number of Americans Needing Long-Term Care

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td>2010</td>
<td>12 million</td>
</tr>
<tr>
<td>2050</td>
<td>27 million</td>
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Estimated Population Growth of those aged 65+

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<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tbody>
<tr>
<td>2014</td>
<td>46.2 million</td>
</tr>
<tr>
<td>2060</td>
<td>98 million</td>
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<tr>
<td>% Change</td>
<td>112%</td>
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Estimated Population Growth of those aged 85+

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tbody>
<tr>
<td>2014</td>
<td>6.2 million</td>
</tr>
<tr>
<td>2040</td>
<td>14.6 million</td>
</tr>
<tr>
<td>% Change</td>
<td>135%</td>
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Sources: Report to the Congress, Commission on Long-Term Care, September 2013; A Profile of Older Americans: 2015, Administration on Aging, 2015.
Prevalence of Chronic Disease has Increased Over Time – And Will Continue

Advances in medical research, new medical treatments, and new technologies enable patients to live longer lives with chronic diseases.

By 2050, the number of Americans living with Alzheimer’s will increase from 5 million to as high as 16 million.

Chronic conditions, particularly multiple comorbid conditions, are often accompanied by functional challenges.

Source: Older Americans 2016: Key Indicators of Well-Being, Table 17b, Agingstats.gov; https://www.alz.org/facts/
Coverage and Financing of LTC are Deficient

Insurance coverage as well as federal and state funding for LTC are insufficient, with serious financial consequences for individuals and government budgets.

Percent of LTSS Expenditures

<table>
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<tr>
<th>Share of LTSS Spending, by Payer (2013)</th>
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<tr>
<td>8%</td>
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<tr>
<td>19%</td>
</tr>
<tr>
<td>21%</td>
</tr>
<tr>
<td>51%</td>
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</tbody>
</table>

- Private Insurance
- Out-of-pocket
- Other Public
- Medicaid

Total National LTSS Spending = $310 billion

Median Annual LTC Costs

- Nursing home: $85-97k
- Adult day care (5 days/week): $18k
- Assisted living: $49k
- In-home health aide: $45k

It is estimated that family caregivers provided over $470 billion worth of unpaid care in 2013.

The nation’s LTC workforce is overwhelmingly built on a foundation of informal, unpaid caregivers.

In 2009, it was estimated that more than 8 in 10 of Americans who need long-term care received it from informal caregivers.

More than 4 in 10 Americans 40+ report having past or current experience providing long-term care to family or friends.

The ratio of potential family caregivers for individuals ages 80+ is estimated to rapidly decline:

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>2010</td>
<td>7:1</td>
</tr>
<tr>
<td>2030</td>
<td>4:1</td>
</tr>
<tr>
<td>2050</td>
<td>3:1</td>
</tr>
</tbody>
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$470 billion estimated worth of unpaid care provided by families caregivers (2013)

Workforce Pressures: The Direct Care Workforce is Insufficient

Moreover, the supply of direct care workers is inadequate to meet increasing demand, in part due to a lack of incentives and high turnover.

The 3rd fastest growing occupation in the U.S. is home health aide, with a projected increase of 47% by 2026.

The 4th fastest growing occupation in the U.S. is personal care aide, with a projected increase of 37% by 2026.

From 2003-2013 the rate of workers leaving direct care occupations outpaced the rate of those entering.

Direct Care Workers Face Many Challenges

- Low wages ($20 – 30k/year)
- Demanding job with irregular schedule
- Often work fewer than 40 hours/week
- Receive little training
- See few career options beyond their current position
- Work is not valued

The LTC Delivery System is Fragmented and Complex

Individuals, who are often crisis-driven due to a sudden illness or injury, find it difficult to understand and navigate the fragmented LTC system and find a place to turn to for help.

A lack of integration, as well as accurate and timely communication across settings and providers, contribute to healthcare system fragmentation.

Medicaid LTSS Expenditures are Pressuring State Budgets

While LTSS users account for a relatively small proportion of the overall Medicaid population, they account for close to half of all expenditures.

States are responding to this pressure with two strategies: moving to managed care, or rebalancing their LTSS system.

Home and community based services (HCBS) accounted for 53% of total LTSS spending in FY 2014, up from 36% in FY 2004.

Proportion of Medicaid LTSS Spending for HCBS by State (FY 2014)

Source: Medicaid Expenditures for LTSS in FY 14, Truven Health Analytics, July 2016.
Close to two-thirds of states have or are planning to implement Medicaid MLTSS Programs

Medicare LTSS Expenditures are Similarly Impacting the Federal Budget

Medicare spends nearly three times as much per capita on the 13% of older adults who need LTSS, as it does on the 87% of those that do not.

Medicare spends:

- Twice as much on older adults with **chronic conditions** when they also need LTSS
- Twice as much on older adults who are **dually eligible for Medicaid** when they also need LTSS
- The same amount per person per year for the **two thirds of non-dually eligible older adults who need LTSS** as it does for the **one third of older adults who need LTSS but are dually eligible**

LTSS Quality Is Variable and Difficult to Measure

LTSS quality measurement is in its nascent stages, with many challenges remaining to be overcome.

- Currently the system is composed of multiple provider types with varying payment structures and different requirements for Medicare and Medicaid.

- Providers use multiple assessment tools to capture similar information.

- Requires a paradigm shift for providers to use these person-centered quality measures and make the patient an active partner in shaping the plan of care.

### Percent of Nursing Homes with 1 or 2 Stars, by State (2015)

- >40%: 21 states + DC
- 31-39%: 18 states
- <30%: 11 states

Data Source: Kaiser Family Foundation
IT Challenges Still Exist for PAC and LTC Providers – But Change is on the Way

**Today**

- PAC and LTC providers were **late** in adopting EMR capabilities
- Not included in HITECH
- Requires **significant capital** which PAC/LTC providers struggle to develop
- **Interoperability** has historically been a major issue

**Looking Ahead**

- Technology offers the promise of enabling more older adults to **age in place** as they desire, and to **reduce the need for institutional care** (both acute and nursing home care)
- **Many companies are moving into this space**, with much activity in telemedicine, mobile apps, and internet-enabled home monitors (even AI, robots, voice-assisted approaches, and more), but **penetration is still low**
- The market is being held back by **misalignment of incentives**, the **difficulty of demonstrating clear impact**, and that individuals often find products difficult to use and of unclear value
- In March 2016, CMS announced it would permit states to claim a **90% HITECH match** for connecting providers to other Medicaid providers, including long-term care providers (nursing facilities, home health providers, and community-based Medicaid providers)
- In August 2016, CMS proposed to **expand the list of telehealth services** eligible for Medicare reimbursement

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Takeaways
## The Future of Long Term Care

There is growing federal and state awareness of the need to reform the long term care delivery and payment systems

<table>
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<th>Quality</th>
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<tr>
<td>Overall, measures are moving in the direction of assessing functional ability, goal-setting, access, and cost</td>
</tr>
<tr>
<td>Measures must include clinical and non-clinical metrics, and should be standardized while allowing for variation</td>
</tr>
<tr>
<td>Measures should connect to current efforts in hospital admissions and population health</td>
</tr>
<tr>
<td>Patients and caregivers should be involved in measure development</td>
</tr>
<tr>
<td>“Quality” should extend to include organizational capacity, incentives, and preparation of workforce</td>
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<table>
<thead>
<tr>
<th>Workforce</th>
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<tr>
<td>Over 30 states have passed the CARE Act to require provider systems to identify and prepare caregivers for LTC</td>
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<tr>
<td>Several states are moving to increase the minimum wage to $15/hour</td>
</tr>
<tr>
<td>Increased training and delegation programs to improve competencies and elevate role in caregiving team</td>
</tr>
<tr>
<td>States are grappling with shortages that affect care availability</td>
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<tr>
<th>Financing</th>
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<tr>
<td>Three groups, the Bipartisan Policy Center, Leading Age, and the Long Term Care Financing Collaborative, have been studying future financing options</td>
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<tr>
<td>Their recommendations generally involve a multi-pronged approach including:</td>
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<tr>
<td>– Structural changes to the private marketplace</td>
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<tr>
<td>– Targeted public solutions addressing catastrophic needs</td>
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<tr>
<td>– Smaller but still vital role for Medicaid as the safety net program for LTC</td>
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Takeaways
# Key Takeaways

- **The need for long term care services is significant and growing**, with implications for many individuals, families, and society as a whole.
- **The coverage and financing of long term care is insufficient**, with severe financial implications for individuals, families, and state and federal budgets.
- **The supply of formal long term care caregivers does not meet demand**, and will not in the future. The role of informal caregivers continues to gain attention and, hopefully, support.
- The fragmented and complex delivery and payment system makes it **difficult for beneficiaries to understand and access services**, as well as **increases overall costs**.
- States have become laboratories for innovation and are **seeking greater flexibility** as high and growing LTSS expenditures push them to **consider new delivery and payment system models**.
- Quality measures must include **clinical and non-clinical metrics**, and should be **standardized** while allowing for **variation**.
- Successful new market entrants will **leverage technology and reshape caregiver roles** to support consumers in their goal of living independently in their homes and communities.
- The future of long term care requires **significant reform and creative solutions** across multiple fronts.
Thank You!
Digital innovations and the long term care workforce

Thomas Grape
Chairman & CEO, Benchmark Senior Living
• Healthcare changes are forcing long term care companies to re-think their business models
• Continuous digital innovations are seen as essential tools in bringing about necessary change
• Yet, the rapid evolution of tech solutions is also a catalyst for change

➤ Inter-related forces contribute to a rapid evolution of the healthcare and LTC environments
Healthcare Digital Innovations Forces

Examples of resulting projects
- Telehealth
- Real Time Location Systems
- Fall Prevention with Wearables
- Virtual and Augmented Reality
Workforce Challenges

US HealthCare Labor demand is faster than other industries....

... and annual turnover is one of the highest at 55%-75%*

Common Causes

- Pay & Benefits
- High workload
- Poor staffing
- Poor working conditions
- Work schedule not meeting needs or expectations
- Lack of role clarity/low sense of control
- Lack of appreciation
- High self-esteem (felt unappreciated)
- Age (younger workers less satisfied than older workers)
- Experience (those with less experience more likely to leave)

* Source: http://journals.sagepub.com/doi/abs/10.1177/0733464809334899

https://www.bls.gov/oes/healthcare/
Workforce Challenges – Changing the Paradigm

Digital Innovations aim to solve the demand curve for the most part...

... but we can focus on the supply curve as well
## Changes in Workforce Management

<table>
<thead>
<tr>
<th>Mindset</th>
<th>Organizational</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embrace change</td>
<td>Less individually-specialized <em>employees</em> and more specialized care <em>teams</em></td>
</tr>
<tr>
<td>Fast-paced in a traditionally slow environment</td>
<td>Collaborative groups (Parallel vs. serial processing)</td>
</tr>
<tr>
<td>Recognizing there is no stopping technology</td>
<td>Remove obstacles to feedback</td>
</tr>
<tr>
<td>Hire employees with higher technical skill (IT) ...</td>
<td>Hospitality/service-oriented</td>
</tr>
<tr>
<td>... at the expense of industry skills (with AI compensating)</td>
<td>Grassroots movements – entrepreneurial setting</td>
</tr>
<tr>
<td>Flatter hierarchical structures</td>
<td></td>
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Improving Care with Innovation

Physical-Based
- 2 person-assist > Exoskeletons, Robotic machines to lift

Mix Physical/Service-Oriented
- Location-bound service > Telehealth
- Isolation > Jibo-like companion

Service-Oriented
- Repeatable backend processes > Robotic Process Automation (software robots trained to perform human tasks)
Digital Innovations: Areas of Impact

Support Functions:
- RPA and Business Process Management

High Touch Functions:
- In the beginning, we will prioritize basic automation to minimize paperwork and extend resident interactions
- Over time, anything than can be outsourced to an AI will be, once we realize they can do it better than humans (and 24/7)
- Pure interactions with residents may remain the only non-outsourced function
RPA: How Much Can Robots Do in our Stead?

Traditional Business Process Management
Software + Artificial Intelligence = Efficient RPA

Non-Care support functions will be first impacted, but many care functions will follow once RPA is fully understood and adopted.
RPA – Example: Bringing It Together

Smart Units
- Tailored to resident/patient
- Monitors Behavior and Activities

Jibo
- Personal Companion
- Interfaces with resident

LTC expertise
- Critical paths for events management

Normal Business Processes
- Processes like “I’m ok” are no longer required
- Night shift monitoring is simplified with less labor required

Adverse event
- Depending on severity, an ambulance is called before the nurse is even aware
- Resident’s file is automatically transferred to the hospital through integrated systems
Seniors Are Increasingly Ready For Tech

Seniors are active in online health management:
- 71% of seniors say they haven't experienced any challenges with their online healthcare.

Seniors are beginning to appreciate 1:1 communication technologies and see value:
- 29% of seniors have noticed their healthcare provider become more engaged with them in the past two years.
- 41% of seniors are comfortable with the idea of telemedicine.
- 43% of seniors say they like mobile applications to access healthcare information, treatment reminders, etc.
- 78% of seniors say online patient portals are valuable and 44% have increased their use of them over the last two years.
- 7 in 10 seniors who go online do so every day or almost every day; an additional 11% go online 3–5 times a week.

Device ownership:
- 25% use a smartphone
- 29% own a tablet or e-reader
- 20% say online chat conversations
- 27% say text messages exchanges with healthcare providers
Digital Innovations Requirements

Efficiency
- Eliminates Processes
- Replaces/Simplifies processes
- Does not add new processes

Enhanced Integration
- Even better integration capabilities between the various systems across organizations

Design
- Enhances human ability
- Discreet
- Scalable
- Evolves with needs and opportunities
- Learns and predicts human behavior
- Accelerates the adoption of good ideas
- Removes complexity

Legal & Regulatory
- Drives legal changes
- Challenges Status Quo