

The Harvard Medical School In-Home Program and Home Care Tapping into Accountable Care Organizations

### **About ClearCare**

### **MISSION:**

Empower home care agencies to operate efficiently and grow, and to improve healthcare and aging

- Located in San Francisco, CA
- Trusted Partner with local and large brands, including 6 of the top 10 franchises
- Over 3,000 agencies choose ClearCare
- \$60 million investment from Battery Ventures in August 2016



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# What ClearCare has been up to...



ClearCare welcomes HomeTrak to the ClearCare family



Launching ClearCareGo Caregiver Mobile App



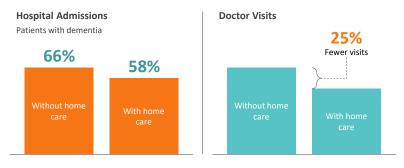


Enabling new business line capabilities with facilities and respite modules



3

### Value of Home Care



Home Care Reduces Hospital Visits: In one study, seniors with Alzheimer's or another form of dementia receiving paid home care had notably lower rates of in-patient hospital admissions–58 percent vs. 66 percent without home care.<sup>37</sup>

Home Care Reduces the Need for Doctor Visits:

Another study found that seniors using paid inhome care reported 25 percent fewer doctor visits each year than older adults who did not have such care.38

Value of Home Care, Home Care Association of America 2016

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## Technology and the Future of Home Care



Innovations such as fall detectors, pill reminders, and smart homes can help seniors live at home longer. Technology not only empowers caregivers in the home, but is a powerful means to support and inform family caregivers and improve care for seniors. In fact, a recent study shows that the combination of mobile technology and observations from care workers in the home can help predict 30-day readmissions, a valuable and cost-effective approach to innovative health care delivery. <sup>39</sup>

Home care companies are embracing these innovations to improve the efficiency and delivery of care. Researchers at Harvard Medical School are developing software that will strengthen caregivers' ability to detect and report changes in their clients' health. The project is aimed at providing better on-

Value of Home Care, Home Care Association of America 2016

the-job tools for caregivers and ultimately prevent hospitalizations, improve health outcomes, and lower Medicare spending among private-pay home care recipients.<sup>40</sup>

Of course, no app or smart device can provide the same care assistance as an in-home caregiver, nor can technology replace the human touch, connection, and companionship between seniors and caregivers. Personalized care will always be essential to healthy, active aging – but technology is an enabler and one way to improve overall care delivery.

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Harvard Medical School Study: "The Intervention in Home Care to Improve Outcomes"

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# So...why?

We are experiencing a massive demographic shift, with more older people than younger for the first time in human history. This fact, in combination with expensive treatments driving the healthcare cost crisis, is prompting a general examination of how preventative, nonmedical care might be the answer to the problem. This program will provide us with invaluable insight into how the power of home care can improve lives.

Geoff Nudd, CEO of ClearCare



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7

## The In Home Study



Designed to help home care providers identify acute clinical changes in condition



How the Program Works



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Caregiver actively monitors patient's well-being.

Changes in the patient's condition are reported.

The Care Coordinator receives an alert for each status change.

Action is taken to ward off a potential health crisis.

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### ClearCare and Harvard Driving Care Protocols and Outcomes

#### Monitoring



Caregiver does monitoring in the home for patient change of condition

#### Alert



In the event of change of condition, the caregiver alerts the Care Manager via ClearCare

#### Triage / Intervention



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Caregiver is asked at the end of the shift

"Does the client seem different than usual? Has there been a change in mobility, eating or drinking, toileting, skin condition or increase in swelling? Press 1 for yes, 2 for no."

If 1, the full checklist is completed.

Response is routed to the Care Manager and a task is created in the ClearCare platform.

Table 1. Pilot Intervention in Home Care to Improve Health Outcomes Program: Change in Condition Clock-Out Checklist

"Does the client seem different than usual? Has there been a change in mobility, eating or drinking, toileting, skin condition or increase in swelling?" Press 1 for yes, 2 for no.

Does the client seem different than usual? (Y/N)

Does client show any reduced talking or alertness? (Y/N) Is client newly agitated, confused, or sleepy? (Y/N) Does the client show any signs of pain? (Y/N)

Has there been a change in mobility? (Y/N)

Has there been a change in the ability to stand or walk? (Y/N) Has there been an observed or unobserved fall or slip? (Y/N)

Has there been a change in eating or drinking? (Y/N)

Has there been a change in toileting?

Has there been any discomfort, smell, or change in frequency associated with urination? (Y/N) Has the client had diarrhea or constipation? (Y/N)

Has there been any change in skin condition or increase in swelling? (Y/N)
Have there been any new skin rashes or wounds? (Y/N)

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Table 2. Pilot Intervention in Home Care to Improve Health Outcomes Program: Distribution of Change in Condition Tasks (n = 4,451)

Task	Percent	Task	Percent
Care recipient seems different	17.1	Reduced talking or alertness	6.9
Agitated, sleepy, confused	8.8	Signs of pain	7.2
Change in mobility (general)	8.8	Change in ability to stand or walk	9.1
Observed or unobserved fall or slip	2.5	Change in eating or drinking	14.0
Change in toileting (general)	4.5	Discomfort, smell, change in urination	1.8
Diarrhea or constipation	3.3	Change in skin condition (general)	8.0
Skin rash or wound	7.9		



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## **Findings**

- A change in condition was found in 2% of all shifts or 1.9 changes per care recipient.
- Caregivers felt "enthusiastic about the intervention", the checklist did not add much time to the clock-out process, and enjoyed having a larger role in the overall care of the care recipient.

Of the ~4,500 changes in condition, the following were most prevalent:



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## **Conclusions**

By using a telephone-based checklist, caregivers in the In-Home pilot identified changes in condition in a number of domains, which can potentially be managed in the home to prevent costly hospitalizations. As a possible limitation, the program could lead to higher medical costs such as more 911 calls or physician visits. A randomized trial of the In-Home program is currently being conducted to evaluate whether this intervention affects healthcare use and outcomes of care. In the meantime, the pilot demonstrated the opportunities and challenges inherent in innovating in a new and little-studied space.





13

## What this means for home care, ALFs and ILC





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