



## OVERCOMING BARRIERS

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Building a Next-Generation  
Platform for Care at Home

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Home-centered care drives significant savings, promotes recovery, and increases patient satisfaction. In this light, care at home seems perfectly poised to deliver on the Triple Aim in healthcare by:

- Improving the patient experience,
- Improving the health of populations, and
- Reducing the per capita cost of care.

Surprisingly, home care remains underused due to barriers that are structurally embedded into the healthcare system.

For any form of healthcare delivery to take root, it must satisfy four fundamental criteria. It must be:

1. Proven
2. Approved by regulatory bodies and reimbursable by payers,
3. Delivered by professionals, and
4. Demanded by patients.

Despite a wealth of research and clinical experience to support the efficacy and value of home-centered care, barriers to healing at home still exist. Using the four criteria above, let's explore the crucial question:

### What will it take for the home to become a center of patient care?

#### 1. Proven

Considerable data shows healing at home to be as good as or better than post-acute care delivered in a hospital or outpatient facility – and with significantly reduced costs.

A study by the Medicare Payment Advisory Commission (MedPAC) found significant savings for home health compared to a long-term acute care hospital, inpatient rehab facility, or a Skilled Nursing Facility (SNF):

Figure 1.

Condition	Home Health TOTAL SPEND	Skilled Nursing Facility TOTAL SPEND	Inpatient Rehab Facility TOTAL SPEND	Long Term Acute Care Hospital TOTAL SPEND
Stroke	\$2,478	\$8,527	\$18,923	\$22,070
Hip and Femur Procedures for Trauma	\$2,595	\$8,761	\$16,018	\$22,738
Cardiac Bypass with Catheterization	\$1,788	\$5,737	\$14,631	\$24,526

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In the context of home health, less-costly care does not translate to lower quality care or impeded recovery.

A published study of total knee replacements compared outcomes of patients who first received 10 days of hospital inpatient rehabilitation to patients who rehabilitated solely in a home-based program.

After 26 weeks, researchers found no significant difference in the 6-minute walk test between any of the groups. Inpatient rehabilitation did not improve mobility compared to the home program.<sup>1</sup>

Most importantly, a home-centered recovery program can also reduce readmissions. A national study by Avalere Health (Figure 2) found that the rate of hospital readmission among home health care patients was significantly lower than those not receiving home health, resulting in an overall lower cost of the care episode, even accounting for additional dollars spent on home health.

While adding home health may increase the cost to treat a specific condition, this same study showed that period-of-care costs per patient in three categories (COPD, Diabetes, and CHF) were significantly lower when utilized home-based post-acute care.

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“The use of inpatient rehabilitation [for knee replacement] compared with a monitored home-based program did not improve mobility at 26 weeks after surgery.” – MA Buhagiar, JAMA Study 2017

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Figure 2. Cost Savings of Early Home Health Care Following Hospitalization



## 2. Approved and Reimbursable

### Home Health Reimbursements

#### Medicare reimbursement policies drive to facility-based care -

Reimbursement is the engine that drives the healthcare system. As a result of Medicare rules, utilization of SNFs continues to grow. Hospital discharge data show the proportion of Medicare patients sent to a SNF instead of the home increased from 5 percent to 20 percent over

the last 30 years.<sup>2,3</sup> A recent report prepared for Centers for Medicare & Medicaid Services (CMS) discovered that SNF length of stay was tied to reimbursement rates and not necessarily clinical need.<sup>4</sup>

**The “homebound” hurdle** – Medicare typically covers intermittent home health services (such as skilled nursing care, physical therapy, and home health aides), as well as medical supplies and durable medical equipment (e.g., wheelchairs and walkers) when medically necessary.<sup>5</sup>

In contrast to in-facility care, however, Medicare regulations may place more stringent requirements on home health than necessary. To be eligible, the patient must first have a doctor-certified medical need for home health, and meet a strict definition for “homebound,” i.e., be unable to leave home without difficulty and require assistance to do so.

Many industry groups find the “homebound” requirement to be problematic. During a CMS demonstration project for the State of Illinois, nearly 20 percent of initial requests for pre-claim review for home health care were rejected because of an inability to demonstrate proof of homebound status.<sup>6</sup>

Restricting home-based care to the “homebound” excludes patients with limited resources, particularly those with financial constraints, transportation challenges, food insecurities, language barriers, and other social factors. Replacing Medicare’s homebound requirement with a scale that measures Activities of Daily Living (ADLs) or the number of chronic conditions would create a need-based home health benefit. In today’s era of value-based care, a needs-based approach would ensure that patients get the care they need to avoid unnecessary and costly readmissions.

**Recent rule changes by Medicare** – CMS has begun to recognize the broader value of supplemental home health services. CMS recently reinterpreted the standards for supplemental benefits in Medicare Advantage plans; changes include coverage for non-skilled in-home support and other assistive devices (published April 2018 for enactment January 2019). This expanded definition of “primarily health related” can now allow supplemental benefits if they compensate for physical impairments, diminish the impact of injuries or health conditions, and/or reduce avoidable emergency room utilization.<sup>7</sup>

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A combination of provider coordination, post-discharge support, and medication management resulted in a nearly 40 percent reduction in readmissions for a health-plan client.

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**Commercial plans** – Today, the bulk of home health services (65 percent) are paid by Medicare and Medicaid. Private health plans account for just 8 percent. Home health coverage varies from plan to plan. Just like with Medicare, most forms of private insurance will not pay for non-medical home health services. In addition, skilled care in the home is rarely covered at 100 percent, so benefits can quickly run out.

**The move to value-based care** – As our healthcare system evolves toward value-based care, an entire integrated spectrum of care will become the norm. According to James Goodwin, MD of University of Texas Medical in Galveston:

“By bundling payments, Medicare is ameliorating the financial incentive of hospitals to reduce LOS, but also offering huge incentives to reduce costs post-discharge. The financial incentive will become achieving the lowest cost for the entire episode of care, not just during hospitalization.”<sup>8</sup>

### **The Future of Home Health**

**Hospital at Home** – For many frail elderly patients, the prospect of being admitted to a hospital can be upsetting or even dangerous – especially with the risk of hospital-acquired infections. Hospital at Home offers an innovative, cost-effective alternative that typically consists of:

- Extended daily visits,
- Home-administered infusions and other clinical procedures,
- Rapid in-home response by physicians and nurses,
- Quick delivery of Durable Medical Equipment like oxygen, mobile X-ray, ultrasound, and electrocardiogram, and
- A system of care coordination to manage the patient, providers, vendors, and care-givers.

According to Dr. Bruce Leff of Johns Hopkins University School of Medicine:

“Hospital at Home has been one of the most studied innovations in health care. A 2012 meta-analysis of randomized controlled trials of Hospital at Home showed a 38 percent lower six-month mortality rate for Hospital at Home patients than hospitalized patients.”<sup>9</sup>

Hospital at Home yields other significant savings. The nation's 33,000, Hospital at Home admissions accounted for 5 percent of all acute in-hospital days – equal to a 500-bed hospital. Given the \$2 million per bed price to build a hospital, Hospital at Home can yield a substantial return on investment.<sup>10</sup>

**Technology for the future** – In order to realize the promise of home health, reimbursement schedules must embrace telehealth and remote technology, including:

- **Live Video** – Live, two-way video interaction between patient and provider,
- **Stored Transmissions** – Transmitting recorded health data, x-rays, and images for remote analysis,
- **Remote Patient Monitoring** – Continuous tracking of the homebound patient's medical data by a nurse or provider in a remote location, and
- **Mobile Health** – Using smartphones and other devices to promote healthy practices, reminders, and interventions.

### 3. Delivered By Professionals

Our healthcare system is characterized by the delivery of care in hospitals, clinics, and other traditional settings. For home-centered care to take root as a mainstream form of delivery, three major problems must be addressed:

**Awareness and care coordination** – Physicians and facilities must understand the benefits of home health and its role in reducing readmissions.

CareCentrix analysis shows that up to 50 percent of readmissions cost is driven by patients who go “home alone” – that is, without any home-based support. We must increase the percentage of physicians and healthcare providers who include home health care as a regular course of action upon discharge from the hospital.

The transitional nature of home health makes care coordination essential. But, in practice, most patients receive little to no post-acute care coordination.

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Normally, a physician certifies the medical need and prescribes the home health service, yet this step often functions as a mere hand-off without a true sense of care coordination across the continuum. This lack of awareness of the post-acute care phase becomes, in effect, a structural barrier to home health taking root.

Post-acute care coordination is also missing from facility care referrals. A study published in the Journal of the American Geriatrics Society found that

- Hospital staff provided little guidance in the SNF selection process, with most patients receiving only a list of names and addresses of local nursing facilities.
- Patients typically chose a facility based on its distance from their home rather than quality metrics.
- Patients generally felt rushed, unprepared, and unassisted during the nursing facility selection process.<sup>11</sup>

**Matching the right provider with the patient** - When lower-level care is delivered by a higher-level clinician, costly resources become poorly utilized. When care is delivered in a facility that could effectively be delivered at home, poor utilization of resources results. Studies show that home health services could provide appropriate care for up to 20 percent of patients who receive care in a SNF.<sup>12</sup>

**Workforce challenges** - With today's growing aging population, a growing problem looms from the lack of home health workers, family caregivers, and geriatric-trained professionals. Part of this problem results from longstanding reimbursement policies which fail to pay home health workers adequately.<sup>13</sup>

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## 4. Demanded by Patients

**A demographic necessity** – The aging of the U.S. population has become a major impetus for new forms of health care delivery. According to MedPAC, the Medicare population is projected to increase by 50 percent – from 55 million in 2015 to more than 80 million in 2030. In addition, the proportion of U.S. residents older than 65 will have nearly doubled. Those aged 85 and older will double by 2036 and triple by 2049.<sup>14</sup>

As the population of older Americans expands against a backdrop of limited resources, the desire to age in place and receive care at home will continue to grow. One survey found that nine out of ten adults with chronic illness would prefer to be cared for at home as opposed to in a hospital or nursing home.<sup>15</sup> And, more than 80 percent of patients stated that they wished to “avoid hospitalization and intensive care during the terminal phase of life.”<sup>16</sup>

**Patient resistance** – Despite the proven benefits of home-centered care, up to 28 percent of patients who qualify for home health do not take advantage of it. Reasons for resistance include:

- Lack of perceived need (e.g., “I’m managing at the moment,” and not foreseeing future complications),
- Lack of awareness of the service,
- Lack of comfort with having a home health worker come to their home, and
- Out-of-pocket cost.

Programs that help patients feel safe at home and add to the healing experience will ultimately change patient attitudes about home health.

**Leveraging technology** – Against this demographic shift, technology-enhanced home health care offers a powerful delivery model to reduce generational costs, alleviate the strain on facilities, and increase satisfaction for an aging population. A policy shift will be needed that prioritizes home health and other non-institutional care settings supported by new care technologies to meet the demographic challenges.

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## Conclusion

CareCentrix is architecting the future of care at home. In addition to advocating for home health policy among payers, providers, and government, CareCentrix has built a fully-integrated approach that can ultimately support intelligent care coordination, telehealth, hospital at home, and other home health innovations.

Health plans need to take a closer look at how implementing a robust home health benefit that includes telehealth and value-add services (such as transportation and personal care) can reduce upfront costs as well as help limit downstream costs from hospital readmissions, repeat surgeries, and other complications.

### Our vision for healing at home includes:

- **Care Coordination** – Providing a single point of contact to keep the patient on track. This includes collaboration with case managers, providers, and caregivers, as well as logistical coordination with vendors, DME deliveries, and clinical services.
- **Patient Engagement** – Identifying gaps, monitoring patient progress (even remotely), reconciling medication, working with family, and proactively making the clinical interventions needed to heal.
- **Provider Networks** – Building certified networks of home health providers so that care managers can quickly select the appropriate site of service and best provider.
- **Technology Platform** – Building the integrative technology to connect teams, manage risk modeling and stratification, manage site of care, UM and claims, track the plan of care, validate delivery of service and delivers case analytics. This platform must also support patients through telehealth and mobile devices.



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#### References

1. Buhagiar MA, et al. "Effect of Inpatient Rehabilitation vs a Monitored Home-Based Program on Mobility," JAMA. 2017;317(10):1037-1046. doi:10.1001/jama.2017.1224
2. An all-payer view of hospital discharge to postacute care, 2013. Statistical brief #205. Rockville, MD: Agency for Healthcare Research and Quality, May 2016 (<https://www.hcup-us.ahrq.gov/reports/statbriefs/sb205-Hospital-Discharge-Postacute-Care.jsp>).
3. Morrissey MA, Sloan FA, Valvona J. Shifting Medicare patients out of the hospital. *Health Aff (Millwood)* 1988;7:52-64. CrossRef | Web of Science | Medline
4. CMS: CMS Bundled Payments for Care Improvement Initiative <https://innovation.cms.gov/Files/reports/bpci-models2-4-yr2evalrpt.pdf>
5. Dean, Olivia, Understanding Medicare's Home Health Benefit, <https://www.aarp.org/content/dam/aarp/ppi/2017/11/understanding-medicare-home-health-benefit.pdf>
6. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/Pre-Claim-Review-Initiatives/Downloads/PCRD-IL-Data-Fact-Sheet-10052016.pdf>
7. Centers for Medicare and Medicaid Services: Contract Year 2019 Policy and Technical Changes to Medicare Advantage etc. <https://www.gpo.gov/fdsys/pkg/FR-2018-04-16/pdf/2018-07179.pdf>
8. Colwell, Janet, "Length of Stay: Timing it Right," *ACP Hospitalist*, October 2014, <https://acphospitalist.org/archives/2014/10/los.htm>.
9. Leff, Dr. Bruce, "Why I Believe in Hospital at Home," *NEJM Catalyst*, February 5, 2017.
10. *ibid*
11. Gadbois et al, "Selecting a Skilled Nursing Facility for Postacute Care," *Journal of the American Geriatrics Society*, 65:2459-2465, 2017.
12. Dobson | DaVanzo analysis: Clinically Appropriate and Cost Effective Placement, 2012
13. Centers for Medicare and Medicaid Services. Affordable Care Act payment model saves more than \$25 million in first performance year. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-releases/2015-Press-releases-items/2015-06-18.html>. Published June 18, 2015. Accessed August 22, 2016.
14. Medicare Payment Advisory Commission. Health Care Spending and the Medicare Program: A Data Book. <http://www.medpac.gov/documents/data-book/june-2016-data-book-health-care-spending-and-the-medicare-program.pdf?sfvrsn=0>, Published June 2016. Accessed August 2, 2016.
15. Hospice Provides What Americans Want at the End of Life. Gallup Survey. National Hospice and Palliative Care Organization. [https://www.nhpc.org/sites/default/files/public/communications/Outreach/Hospice\\_Provides\\_What\\_Americans\\_Want.pdf](https://www.nhpc.org/sites/default/files/public/communications/Outreach/Hospice_Provides_What_Americans_Want.pdf)
16. The Dartmouth Atlas of Health Care. Inpatient days per decedent during the last six months of life, by gender and level of care intensity. End of life care. The Dartmouth Institute for Health Policy and Clinical Practice. <http://www.dartmouthatlas.org/data/topic/topic.aspx?cat=18>, Published 2012. Accessed August 2, 2016.
17. "I Can Take Care of Myself!" – Patients' Refusals of Home Health Care Services, A Report from a Roundtable Sponsored by United Hospital Fund and the Alliance for Home Health Quality and Innovation. 05/15/2017