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HOME CENTERED CARE INSTITUTE

Home-Based Primary Care's Perfect Storm

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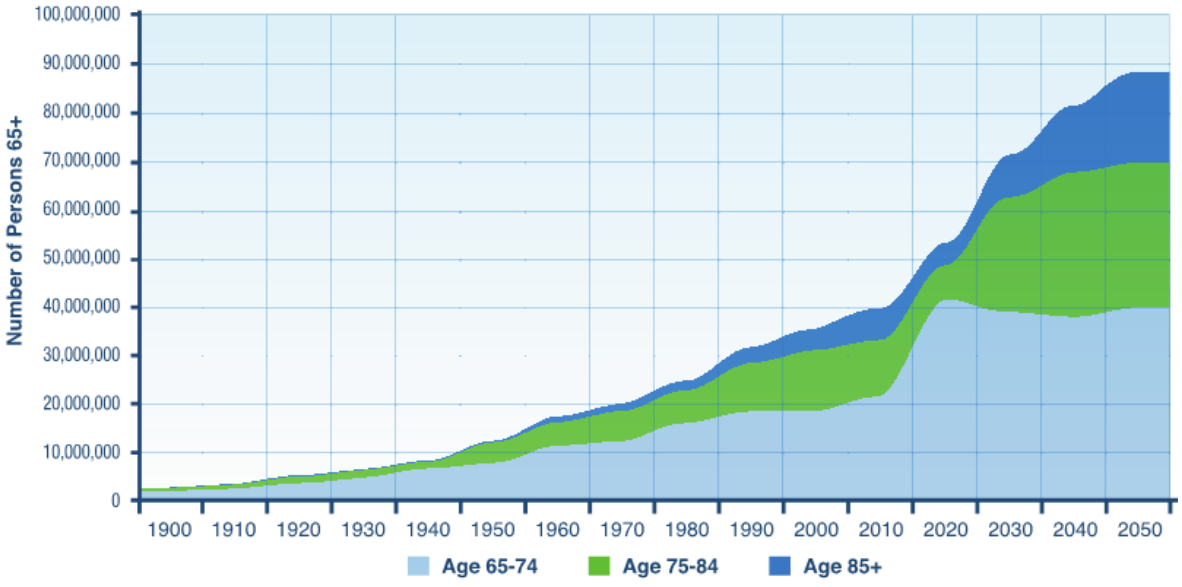
(Initial publication 2014; Revised December 2019)

Home-based Primary Care (HBPC), commonly known as the modern-day house call, delivers quality primary care to the most complex and costly patients in society. Modern portable technology including EKGs, X-rays, Ultrasounds, lab tests, IVs, and more, enables state-of-the-art care to be done in the comfort of a patient's home. It has been shown to significantly improve the quality of life of home-limited patients and their caregivers, while dramatically decreasing health care costs by enabling patients to age at home and avoid costly hospitals and nursing homes. Despite these impressive results, HBPC has been slow to scale mainly because the predominant fee-for-service payment system rewards volume over value. This, however, is changing with the increasing prevalence of value-based payments. With support from generous donors, the Home Centered Care Institute (HCCI) was founded to expand the number of house call programs, increase the workforce, facilitate research into best practices, and increase awareness of, and support advocacy for, HBPC. Most important, HCCI is well-positioned to help address a "perfect storm" of elements that is now fanning the sails of the modern house call movement. The six following elements of the storm are discussed in this paper:

1. The Aging of Society
2. The Medicare and Medicaid Fiscal Crisis
3. Federal Rebalancing Legislation
4. Evidence of Better Outcomes and Cost Savings Associated with Home-Based Primary Care
5. Lowering Hospital Mortality Rates Through Quality End-of-Life Care
6. Health Care Reform and New Alternative Payment Models

1. The Aging of Society

Figure 1: Population 65+ by Age: 1900-2050

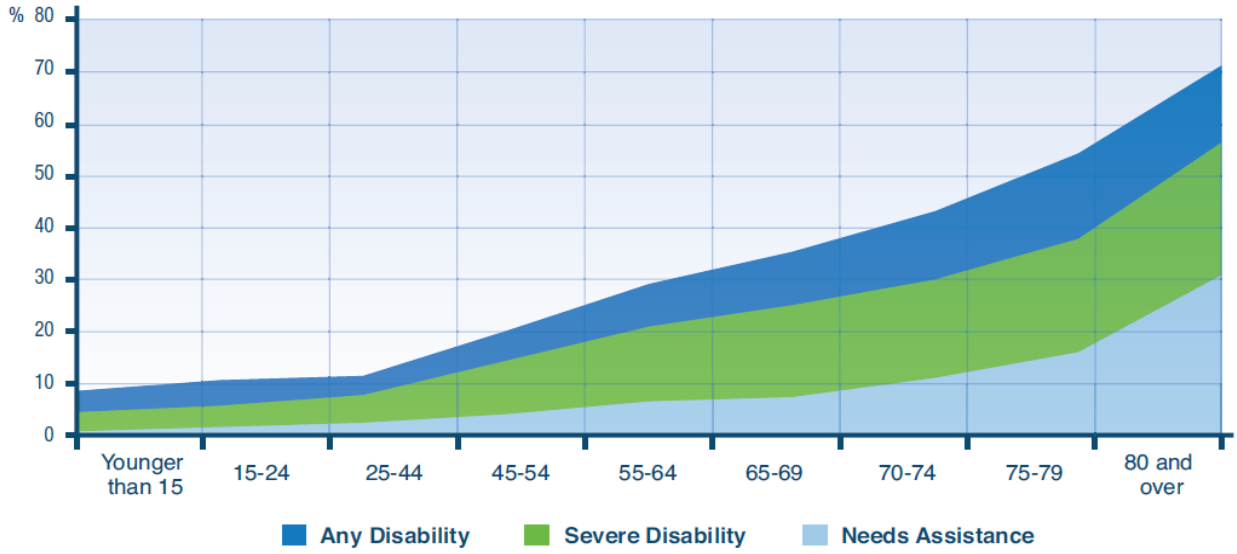


Source: U.S. Bureau of the Census

The 65-plus population is the fastest growing. **Of this group, the 85-plus population is the most rapidly increasing** and will quadruple from 2000 to 2050.

The population that is over 80 has the most disabilities and need for assistance with basic activities of daily living (e.g., feeding, walking, transferring, toileting, dressing, bathing) as seen in Figure 2 below. **This is an exploding home-limited population.** It is also the highest utilizer of costly hospital and nursing home services, which can be dramatically reduced by increasing HBPC.

Figure 2: Disability Prevalence and the Need for Assistance by Age



Source: U.S. Census Bureau, Survey of Income and Program Participation, May-August 2010. (Brault, 2012)

2. The Medicare and Medicaid Fiscal Crisis

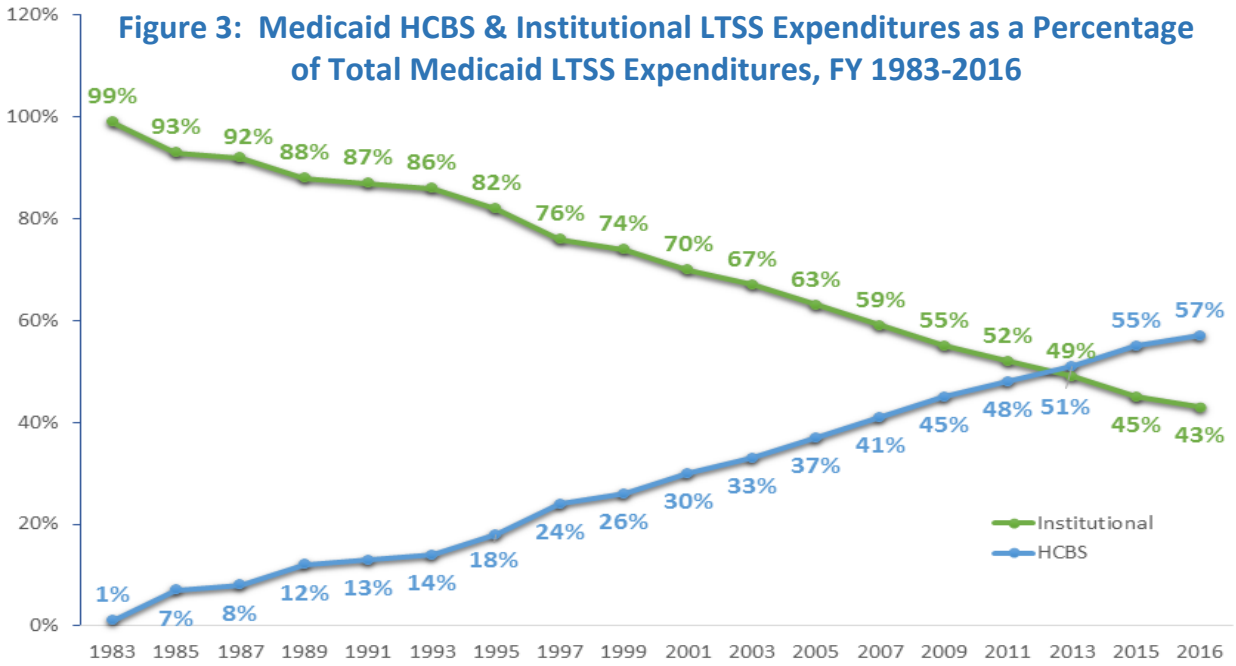
HBPC's better care and cost savings offer a partial solution to the Medicare and Medicaid fiscal crisis. U.S. health care spending reached $3.5 trillion in 2017, representing 17.9% of the Gross Domestic Product. People over 65 are the most rapidly growing segment of the population and are associated with the highest care costs. [1] Medicare is facing insolvency in 2026.[2]

Medicaid was the largest component of state budgets in 2016, consuming 28.7% of total spending compared to 19.6% spent on elementary and secondary education.[3] Medicaid is the largest payer of Long-Term Services and Supports (LTSS), which includes both home and community-based services (HCBS) and nursing home care. The demand and costs for LTSS will increase as our society ages. In 2016, Medicaid spent $167 billion on LTSS, representing 30% of Medicaid expenditures.[4] Medicaid pays for over half of the nation's total spending on nursing homes.[5] **The Veteran Health Administration's HBPC program showed a dramatic 87-89% reduction in nursing home costs, and multiple HBPC-related studies have found reduced health care costs while enhancing both patient and caregiver quality of life.[6, 7]**

3. Federal Rebalancing Legislation

Federal rebalancing legislation provides incentives for states to increase home and community-based services (HCBS) to enable people to remain at home and reduce nursing home placement. Enabling more nursing home eligible patients to remain at home then increases the need for HBPC.

The two main rebalancing programs are Money Follows the Person (MFP) Rebalancing Demonstration Grant (authorized by Congress in the Deficit Reduction Act of 2005)[8] and the Balancing Incentive Program (BIP-authorized by the Affordable Care Act in 2010).[9] These programs provide financial and practical supports to enable patients to remain in their home or to transition from nursing homes back into the community. As of December 2016, 75,151 Medicaid beneficiaries had been assisted through MFP in transitioning to their communities across 43 states and the District of Columbia.[10] Figure 3 shows the significant increase in HCBS dollars resulting from legislative efforts. In 2013, for the first-time, HCBS accounted for over 50% of Medicaid long-term services and supports (LTSS) spending. This has resulted from both an increase in HCBS funding and a decrease in spending for institutional services.



https://www.medicaid.gov/medicaid/ltss/downloads/reports-and-evaluations/ltssexpenditures2016.pdf

4. Evidence of Better Outcomes and Cost Savings Associated with Home-Based Primary Care

In October 2014, two peer-reviewed articles appeared in the *Journal of the American Geriatrics Society* (JAGS) that dramatically added to the evidence of the value of home-based primary care. One of the articles featured the Veteran Health Administration's Home-Based Primary Care Program, which started more than three decades ago and serves over 30,000 veterans. A previous analysis of 2002 data found a **24% reduction in total costs amounting to over $9,000 savings per veteran (Table 1).**

Table 1: 2002 Cost of Care Before vs. During HBPC (per patient per year)

	Before HBPC	During HBPC	Change
Hospital	$18,868	$7,026	–$11,842 (–63%)
Nursing Home	$10,382	$1,382	–$9,000 (–87%)
Outpatient	$6,490	$7,140	+$650 (+10%)
All Home Care	$2,488	$13,588*	+$11,100 (+460%)
Total Cost of VA Care	**$38,168**	**$29,136***	**–$9,032 (–24%) P < 0.0001**

N = 11,334 Veterans in HBPC in 2002 (* includes HBPC cost)

In addition to referencing the above 2002 data, the 2014 article also analyzed 2007 data and found a remarkable 59% reduction in hospital days, an 89% reduction in nursing home days and a 21% reduction in 30-day readmissions. Veterans can use both their VA and Medicare benefit, and a goal of this study was to learn if the significant VA cost savings came from cost-shifting to Medicare. The cost of care was analyzed for

6,951 veterans also enrolled in Medicare in 2006. The HBPC program was associated with a 13.4% decrease in costs with a 16.7% savings to the VA and an additional 10.8% savings to Medicare. The veterans in the HBPC program each received over $9,000 of additional care in the home but still had overall cost savings of greater than $5,000 per veteran principally from a 25.5% reduction in hospitalizations. The program also had the highest patient and caregiver satisfaction in the VA system.[11]

The second October 2014 JAGS article analyzed 722 HBPC patients in the MedStar Washington Hospital Center Medical House Call Program. As compared to 2,151 matched controls, the HBPC program generated 17% lower Medicare costs, which came to a two-year savings of $8,477 savings per beneficiary and a remarkable overall savings of $6.1 million. The HBPC patients had more primary care visits (house calls), more home health and more hospice. The majority of cost savings were realized from a 9% reduction in hospitalizations and a 10% reduction in emergency department visits.[12]

5. Quality End-of-Life Care: Lowering Hospital Mortality Rates

Seventy percent of Americans say they would prefer to die at home[13], but only 33.5% do. A study comparing end-of-life care in 2000 vs. 2009 found deaths at home increased (30.7% to 33.5%), deaths in the hospital decreased (33% to 25%), and hospice increased (22% to 42%). Although this data suggests that we are on the right path to fulfill people's end-of-life wishes, it is somewhat misleading. The same report revealed that ICU stays in the last month of life increased (24% to 29%), hospitalizations in the last three months of life increased (from 63% to 69%), and short hospice stays of <3 days also increased (22% to 28%) with 40% of these short hospice stays preceded by an ICU stay.[14] This aggressive care at the end-of-life is not only incongruent with patients' wishes, but it is also terribly expensive. In 2010, 25% of the $556 billion of Medicare dollars went to care in the last year of life.[15]

In comparison, end-of-life care is much different in the author's house call practice, Northwestern Medicine's HomeCare Physicians (HCP--Wheaton, Illinois). HCP has annual mortality rates between 20-25%. Goals of care, including end-of-life wishes, are discussed early and often to ensure they are fulfilled. HCP had 1,022 deaths between 2014-2018. 76% of these people died at home, and 76% were in hospice. The average length of stay in the house call practice was 2.1 years, and the median was 1.3 years. The majority were not hospitalized in their last three months of life.

One favorable unintended consequence of quality end-of-life care in the home is decreased hospital mortality rates. Having 76% of 1,022 deaths occur at home versus 33.5% nationally resulted in 437 additional deaths at home than would be expected. The two supporting hospitals had 1,644 deaths during the same five-year period. Enabling 437 additional deaths at home significantly lowered the hospitals' mortality rate. Hospital mortality is now a part of the Medicare Quality Incentive Program that impacts hospital payments. In addition to lowering hospital mortality rates, house calls also lower 30-day readmission rates. In the first six years of the CMS Hospital Readmissions Reduction Program, the principal supporting hospital had no readmission penalties, except a small 0.29% penalty in year four. It was one of only four hospitals out of 127 in Illinois in the six-year period to have 0-1 penalty years.

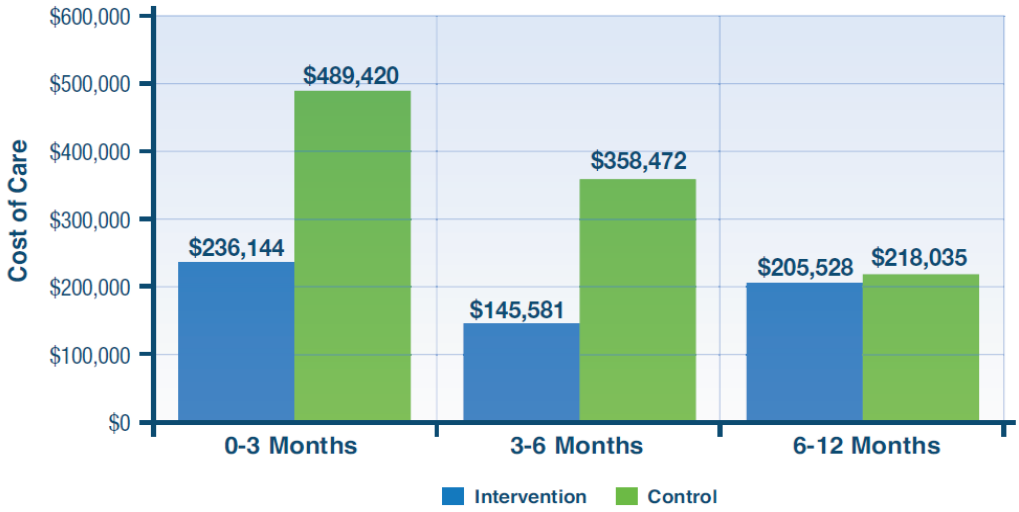
6. Health Care Reform

a. Readmission Reduction

Data published in the *New England Journal of Medicine* in April 2009 revealed that 20% of Medicare hospital discharges were readmitted within 30 days and 34% within 90 days.[16] Half of the 30-day readmitted patients had not seen a physician since hospital discharge. In 2012, Medicare started penalizing hospitals for excessive readmissions. In 2017, 79% of hospitals were penalized.[17] Attempts to reduce readmissions with Medicare home health (nurses, therapists, social workers, aides) have generally not been successful, with readmissions remaining high around 29%.[18] In contrast, HBPC **by doctors, nurse practitioners, and physician assistants has shown profound effects in both reduced readmissions and health care costs.** A study published in the *Journal of the American Geriatrics Society* in 2004 showed nurse practitioner house calls for three months post-hospitalization cut readmissions by more than half (23 in the house call group versus 63

in the control group). Figure 4 shows the dramatic cost savings. The house call intervention stopped at three months, but benefit continued for an additional three months, with over 50% reduction in readmissions and costs vs. the control population. No further benefit was seen in the 6-12-month period, demonstrating the need for continued longitudinal HBPC for this patient population.

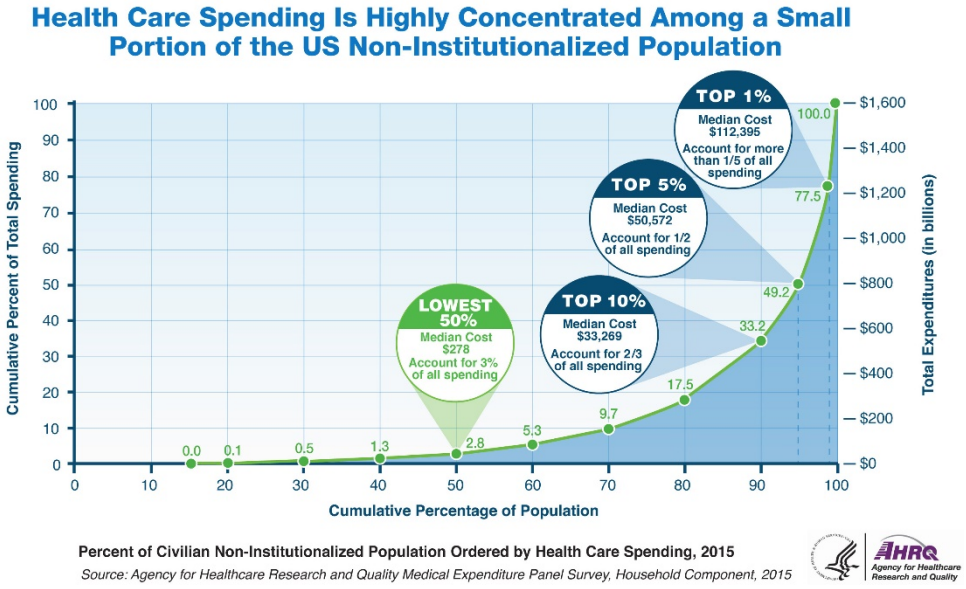
Figure 4: Resource Use Among Elderly Congestive Heart Failure: Patients Who Received a Transitional Care Intervention or Usual Care, Six Philadelphia Hospitals, 1997-2001[19]



b. Medicare Shared Savings Program & Bundled Payments for Care Improvement Initiative

The Medicare Shared Savings Program facilitates coordination and cooperation among providers to improve the quality of care for Medicare fee-for-service beneficiaries and reduce costs. Hospitals and providers participate by creating an Accountable Care Organization (ACO).[20] The ACO's goal is to provide higher quality and better coordinated care, resulting in cost savings which are shared with the ACO. The greatest savings are generated from the highest cost patients - those with five or more chronic conditions and multiple functional deficits. This is also HBPC's target population. Figure 5[21] shows the costliest 1% of patients consume 23% of total costs at a median annual cost of $107,130 per patient, and the top 5% consume 50% of total costs at a median annual cost of $47,455 per patient.

Figure 5:



Percent of Civilian Non-Institutionalized Population Ordered by Health Care Spending, 2015

Source: Agency for Healthcare Research and Quality Medical Expenditure Panel Survey, Household Component, 2015

This top tier of spending is where the greatest cost savings are found. HBPC has been shown to dramatically reduce costs on these patients, who are the most expensive. For example, U.S. Medical Management operates the Visiting Physicians of America (USMM/VPA), the largest house call program in the country. USMM/VPA generated over $59 Million in shared savings in the first two years (2015/2016) of participation in the Medicare Shared Savings Program ACO. **USMM/VPA operates the only ACO in the country dedicated exclusively to the home-limited population.** In year two (2016), USMM/VPA cared for approximately 18,000

patients in 14 states and generated cost savings of $44.5 million, making USMM/VPA the fourth most financially successful ACO out of 472 total ACOs. They generated an average savings of $2450 per patient while achieving an overall quality score of 97.25%.[22] Recently released 2017 results showed USMM/VPA in its third year of operation saved an additional $45 million on 20,750 home-limited patients, with an overall Quality Score of 93%. **Clearly, Home-Based Primary Care can generate important savings for the American Health Care System.**

Under the Bundled Payments for Care Improvement Initiative, organizations will enter into payment arrangements that include financial and performance accountability for episodes of care. Traditionally, under fee-for-service, Medicare financially rewards volume by making separate payments for all services furnished to beneficiaries for a single illness or course of treatment. Bundled payments for an episode of care align incentives for providers and hospitals to use resources wisely and coordinate care to reduce duplication and achieve the best outcomes. Some of the bundled payments combine hospitalization plus a predetermined 30, 60 or 90-day period of post-acute care. **House calls can be of value to these bundled episodes of care in the post-acute care continuum by improving care and reducing readmissions.**

c. Independence at Home Medicare Demonstration

The three-year Independence at Home (IAH) Medicare house call demonstration began April 2012. It involves 14 independent practices and one consortium of three practices with an initial cap of 10,000 beneficiaries. The program is completely funded through cost savings generated by the house call practices. Below describes the program in terms of patients served, who the providers are, and where the proceeds go.

1. Patients: IAH focuses on the highest cost Medicare beneficiaries (10% of Medicare beneficiaries with $\geq$ 5 chronic conditions that account for 2/3rds of Medicare spending). IAH beneficiaries must have:
    i. $\geq$ 2 chronic conditions
    ii. Functional dependence ($\geq$ 2 Activities of Daily Living (ADL) deficiencies) and frailty
    iii. Emergent hospitalization in past year and post-acute care services
2. Providers: Holds IAH provider organizations strictly accountable for three performance standards:
    i. Minimum savings of 5%
    ii. Good outcomes commensurate with the beneficiary's condition
    iii. Patient/caregiver satisfaction
3. Proceeds: Savings beyond 5% are split between Medicare and the house call programs with up to 80% going to the programs if quality indicators are met. The shared savings fund the house call program's operations and create incentives to invest in new mobile diagnostic and therapeutic technologies that can further improve care and reduce costs.

IAH realized $82 million in cost savings in its first four years, an average yearly savings of over $1,900 per beneficiary. Beneficiaries had fewer 30-day readmissions, hospitalizations, and emergency department visits. Quality of care increased in all measured areas such as follow-up within 48 hours of hospitalization, medication reconciliation, and advanced care preferences documented.[23] This further illustrates HBPC's dramatic impact on improving care while dramatically reducing costs. The House and Senate in 2015 unanimously approved a two-year extension of the successful IAH demonstration. In February 2018, another two-year extension was granted by Congress, and the program was expanded to 15,000 beneficiaries. There is current legislation in the House for another three-year extension with the eventual goal of creating a nationwide IAH program. There are 2.4 million Americans that qualify for IAH. Creating a national IAH program would produce savings between $2.6 and $27.8 billion, with savings to CMS totaling $1.8 to $10.9 billion.[24]

d. Advanced Alternative Payment Models (APMs)

Medicare is transforming payment from volume-based fee-for-service to value-based payments, which will support HBPC. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) moved this transformation forward, creating the Quality Payment Program (QPP) which included the Merit-based Incentive Payment System (MIPS) and Alternative Payment Models (APMs). Current APMs include Medicare Shared Savings Programs (ACOs), Bundled Payments for Care Improvement, Comprehensive Primary Care Plus (CPC+) and others. The Center for Medicare and Medicaid Innovation (CMMI) announced their new Alternative Payment Models in April 2019. They are described in Table 2.

Table 2: CMMI New Value-based Payment Models

Model	Details	Payment
Primary Care First	• Professional Population-based Payment (PBP), Per-beneficiary-per-month payment (PBPM)] • Flat visit fee • Performance-based adjustment (PBA) • 26 States/Regions	• PBP: Group 5 (Avg. HCC>2): $175 PBPM • Flat Visit Fee: $50.52 • PBA: Up to 34% in Year 1 and 50% in Year 2 based on key performance measures
Primary Care First: Serious Ill Population	• Professional Population-based Payment (PBP), (Per-beneficiary-per-month payment (PBPM)) • Flat visit fee • Quality Payment Adjustment	• First-Visit Payment: $325 • PBP: $275 PBPM • Flat Visit Fee: $50.52 • Quality Payment Adjustment: +/- $50 PBPM
Direct Contracting	• Large practices (≥ 5,000 beneficiaries) (there are discussions to allow smaller practices) • Risk-adjusted primary care capitation with 50% financial risk/shared savings • Global capitation with full risk	• Payments being determined

Reference: https://innovation.cms.gov/initiatives/primary-care-first-model-options/ (Accessed August 2019)

Comprehensive Primary Care Plus (CPC+), an existing payment that also helps HBPC and helped in developing the new payments, is a current APM involving 3,000 practices in eighteen regions. It requires five functions which are core to HBPC: Access and Continuity; Comprehensiveness and Coordination; Care Management; Patient and Caregiver Engagement; and Planned Care and Population Health. For the most complex patients, the program currently pays a $100 PBPM (per beneficiary per month) care management fee in addition to FFS payments. Primary Care First is an extension of the CPC+ program for higher complexity patients who are commonly seen in HBPC practices.

Conclusion

Once considered a quaint artifact of a simpler time, home-based primary care or the modern-day house call is a model whose time has come. A perfect storm has developed, creating both an economic engine and enormous demand for HBPC. The markedly improved care and resulting cost savings associated with HBPC are something patients, caregivers, and our society greatly need. Currently, only about 15% of the nation's 3 million home-limited patients receive home-based primary care.[25] Value-based payments, if adequately funded, will provide the economic engine to scale HBPC programs, enabling them to be sustainable and better meet the national need.

Once there are adequate payments in place, an HBPC workforce sufficient to meet the need is critical. The Home Centered Care Institute is working to educate and assist the next generation of HBPC providers through a multi-modal curriculum and a variety of educational offerings (detailed below).

In all, HCCI is working with national leaders in HBPC to continue moving the field forward by creating more house call programs, expanding the workforce, determining best practices for both practice management and clinical care, and telling the HBPC story to payers, policymakers and the public. There is a significant opportunity to impact the sickest and costliest patients in our society and be a major solution to our national healthcare crisis.

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About the Author

Dr. Thomas Cornwell has devoted his professional career to home-based primary care. He has made 33,000 house calls to more than 4,000 homebound patients over the past twenty-five years. His work has received several local and national awards and significant media attention.

About the Home Centered Care Institute

The Home Centered Care Institute (HCCI) is a national non-profit focused on advancing home-based primary care (HBPC) to ensure that chronically ill, medically complex and homebound patients have access to high-quality care in their homes. HCCI partners with leading academic medical centers, health systems, and industry experts to raise awareness of and advocate for expanding the HBPC model by growing the HBPC workforce through education and training and by developing a research-based model for sustainable house call program implementation and growth.

About Home Centered Care Institute Education

HCCI has worked with experts across the field in clinical and practice management to develop a comprehensive education program that includes the following:

Live Workshops

- *HCCI Essential Elements of Home-Based Primary Care™*
  - Two-day foundational workshop designed for learners who are considering or are relatively new to HBPC.
- *HCCI Advanced Applications of Home-Based Primary Care™*
  - Two-day workshop designed for experienced HBPC providers and practice staff seeking to advance their knowledge, skills, and productivity.

Online Courses

- *Affordable, on-demand learning for home-based primary care professionals interested in* expanding their skills on a wide range of clinical and practice management topics in HBPC.

Technical Assistance

- HCCIntelligence™ – free assistance and downloadable resources
  - Hotline – Help@HCCInstitute.org, (630) 283-9222 (9:00am - 5:00pm CST)
  - Monthly webinars and virtual office hours
  - Resource Center

Individualized Learning/Improvement Opportunities

- HCCI House Call Practicum™
  - Two- or three- day field experience designed to allow providers and practice managers to shadow trained preceptors at an HCCI Practice Excellence Partner (PEP)™ – a program recognized nationwide as a premier provider of HBPC.
- HCCI Special Presentations and Customized Education
  - Onsite or virtual delivery of a wide range of clinical and practice management topics selected to meet the needs/interests of a specific practice or a professional organization.
- HCCI Consulting Services
  - Affordable consulting services tailored to meet a practice's specific needs.

# # #

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