



JOHNS HOPKINS
BLOOMBERG SCHOOL
of PUBLIC HEALTH

Roger C. Lipitz Center
for Integrated Health Care



Identifying and Caring for “Invisible” Homebound Older Adults

A Roger C. Lipitz Center for Integrated Health Care Issue Brief - Winter 2023

Katherine Ornstein, PhD, MPH, and Bruce Leff, MD, two experts affiliated with the Roger C. Lipitz Center for Integrated Health Care at the Johns Hopkins Bloomberg School of Public Health, share their expertise on who the invisible homebound older adults are and their access to care. From policy to practice to the media, their research is making an impact.

Background

Providers who care for older adults routinely report that many of their patients become homebound over time and have substantial difficulties accessing office-based primary care. These patients have multiple chronic conditions, functional impairment, and often limited social capital. Further, the full scope of their needs are simply not being met by any of the existing formal health services—ambulatory, hospital, emergency department, hospice, or skilled home health care. The patients’ complex medical needs and their limited ability to access primary care commonly result in unnecessary emergency department visits, hospitalizations, and downstream health care expenditures.

By nature of their condition, [homebound patients are high need, high cost, and often invisible to providers, health care systems, health services researchers, and insurers](#). Difficulties in identifying the homebound have limited research into their outcomes, health care use, and spending.

Defining the homebound patient population and estimating their size, unmet needs, and use of home-based care services have important implications for both practice and policy. Over the past two decades, federal and state policymakers have increased investment to provide more long-term services and supports (LTSS) to older patients in the home. The COVID-19 pandemic has accelerated efforts to identify new models for delivering care to homebound older adults, including those with dementia. While models of home-based medical care (HBMC) or “house calls” have existed for decades, they are becoming a rapidly growing area of care delivery as a result of value-based care models, such as remote monitoring and portable equipment and a growing evidence base of improved patient outcomes and due to technological advancements.





Identifying homebound adults and providing access to equitable and affordable care is essential for the well-being of patients with multiple and chronic conditions. Home-based medical care would also help to reduce emergency department visits and lower costs for patients.

— Katherine Ornstein, PhD, MPH



Who are the invisible homebound?

Using data from the National Health and Aging Trends Study (NHATS), [Ornstein, Leff, and their colleagues performed several studies](#) to define the invisible homebound population in the U.S. It turns out there are approximately two million older Americans who rarely or never leave their homes, which is nearly 1.5 times the total nursing home population. Another 5.5 million older adults cannot leave home without difficulty or the help of another person.



- Homebound adults are a [diverse population](#). Hispanic and Black non-Hispanic individuals experience higher rates of being homebound compared to White non-Hispanic individuals.
- Homebound older adults have complex social and medical needs and experience high levels of multimorbidity, functional impairment, and symptom burden.
- Dementia is highly prevalent in this population.
- [Becoming homebound is associated with 66% mortality over 6 years](#). Importantly, homebound people report difficulty obtaining routine medical care and an inability to engage in valued activities.
- Health care costs for homebound older adults are, on average, double those of non-homebound. They are often socially isolated and report being lonely and depressed.
- [During the COVID-19 pandemic](#), the prevalence of homebound older adults doubled from approximately 5% to 10% with increases for minority populations, including Black non-Hispanic and Hispanic/Latino individuals.

Access to home-based medical care

There are a variety of clinical services that occur in the home setting including skilled home health care and home-based medical care (HBMC) that can provide much needed support to homebound older adults. HBMC is physician, physician assistant, or nurse practitioner-led, interprofessional, longitudinal care delivered to homebound older adults who cannot otherwise access traditional office-based primary care. Ornstein, Leff, and colleagues have used multiple data sets to examine how, where, and under what circumstances HBMC is used. Among fee-for-service Medicare beneficiaries, 5% received any HBMC. Most of this occurred in metropolitan areas. Even less HBMC was used among those in Medicare Advantage plans. The national-level [growth in HBMC in the last decade has been largely driven by a growth of HBMC occurring in assisted living and other residential care settings](#), not surprisingly given that there is no reimbursement for travel to patient homes.

HBMC is serving both clinically and socially complex homebound and non-homebound people, but the number of people who may benefit from this care is much greater than the number who receive it. Currently, only about 12% of homebound older adults have access to HBMC. Policies that support the expansion of home-based medical care through quality metric development and payment reform will help ensure that vulnerable people can benefit from this high-value, patient-centered model of care.

In the Media

Research led by Leff and Ornstein found that homebound older adults incur high costs of health care and is mentioned in [Becker's Health IT](#), [Home Health Care News](#), [Health Leaders](#), and [Harlem World Magazine](#).

Listen to a new episode of the Center to Accelerate Population Research in Alzheimer's podcast [Minding Memory](#), featuring a discussion with Ornstein about home-based health services for people living with dementia.

Acknowledgements

This issue brief was written by Katherine Ornstein, PhD, MPH, and Bruce Leff, MD. Support was provided by the Roger C. Lipitz Center for Integrated Health Care.

Recommended Citation

Leff, B. & Ornstein, K. (2023). *Identifying and Caring for "Invisible" Homebound Older Adults*. Roger C. Lipitz Center for Integrated Health Care.

Contact

[@LipitzCenter](https://jhsph.edu/LipitzCenter)

Home-based services for persons with dementia: an essential health care delivery mechanism

We know that nearly half of homebound older adults have dementia from multiple studies led by Ornstein, Leff, and colleagues. Leaving the home to access medical care may result in undue burden for persons with dementia and caregivers. Such difficulty may result in persons with dementia forgoing routine care and instead experiencing costly and potentially unnecessary emergency department visits or hospitalizations after becoming acutely ill. Hospitalization may be particularly risky for persons with dementia due to increased risk for delirium and iatrogenesis. [In a new study](#) with colleagues from Mass General Brigham and the Mount Sinai School of Medicine, Leff and Ornstein studied how home-based medical care and other home-based services are used by patients with dementia. Using NHATS data linked to Medicare claims, they found that persons with dementia received substantially more of all types of home-based services than those without dementia including a five-fold increased use of HBMC. Use of HBMC, podiatry, and other home-based clinical services like behavioral health was significantly more likely among those living in residential care facilities, in the Northeast, and in metropolitan areas. Although almost half of community-dwelling persons with dementia receive home-based care, including skilled home health care, there is significant variation in utilization based on race and ethnicity and environmental context. Increased understanding as to how these factors impact utilization is necessary to reduce potential inequities in health care delivery among the dementia population.

Moving from research to policy and practice

Research can inform policymakers' ability to structure delivery of high-value care to homebound older adults across the U.S. The Centers for Medicare and Medicaid Services launched the Independence at Home (IAH) Demonstration and found that the delivery of HBMC in a shared-savings model provided high-value care to homebound older adults. The majority of HBMC practices participating in IAH reported improved patient outcomes and reduced health care spending, with 10 times the savings of Accountable Care Organizations. However, [HBMC remains underutilized and inaccessible](#) to many and the number of people who may benefit from home-based medical care greatly exceeds the number who receive it.

Major health systems are beginning to recognize the importance of identifying homebound older adults in their systems and designing interventions to meet their needs and provide high-value care. Ornstein and Leff, with Sarah Szanton, dean of the Johns Hopkins School of Nursing, and Christine Ritchie, director of the Mongan Institute Center for Aging and Serious Illness at the Massachusetts General Hospital, are collaborating with Humana, a U.S. health insurance company, to identify homebound beneficiaries nationally and develop prediction models to identify those at risk of becoming homebound.

