

The Case for Home Care Medicine: Access, Quality, Cost

1. Background

Long term care: community models vs. institutional care

Compared with most industrialized nations the US relies more on institutional than community models for long term care. Canada, England, Denmark, Japan and others have more robust community-based care systems.

US state Medicaid programs vary in use of community care compared with nursing home care: compare Oregon 75% (home care) vs. 19% (NH) with Indiana at 25% (home care) vs. 57% (NH).

Financing and related evolution of US health care since 1965 centers on high technology rescue strategies, hospitals and nursing homes, and care “silos” rather than coordinated management of advanced chronic illness across settings.

A major focus should be on 10% of the Medicare population, averaging five or more chronic conditions, that drives more than half of Medicare costs.

Effective community-based care requires a strong, integrated medical component which has largely been missing.

Conventional care is fragmented, poorly coordinated, dangerous

In today’s medical practice, many patients with advanced chronic illness are served by processes marked by discontinuity of providers, disjointed medical records, and lack of timely access to care.

Chronically ill, ambulatory patients often have numerous physicians, and make large numbers of visits to physician offices.

Patients are treated in “silos” of care: physician offices, hospitals, ERs, nursing homes, and home health agencies. Providers increasingly concentrate their efforts in one practice environment. Communication between settings is poor.

Financial incentives favor institutional and procedural care, plus rapid movement through each silo. Conventional Medicare offers no incentives for integration. Primary care providers cannot afford to manage many complex patients.

Novel payment models are starting to create newer care delivery options, but enrollment of the frail is modest.

A crisis is approaching due to an aging population, medical cost inflation that exceeds economic growth indices, and lack of a comprehensive strategy for care of people with advanced chronic illness. To respond we must re-focus attention on the doctor-patient relationship and population needs, rather than needs and habitual practices of those delivering care in institutional settings.

2. Home Care Medicine: Preference, Access, Quality, Cost

Preference for care at home including house calls

Most patients prefer care at home where they control the agenda, care schedule, diet, sleep time, and enjoy familiar surroundings. This has been shown in many studies over a period of decades and is described in the Picker-Commonwealth Program for Patient-Centered Care. House calls epitomize these principles:

- 1) respect customers' values, preferences and needs
- 2) coordination, integration of care, continuity
- 3) information, communication, education
- 4) improved physical comfort
- 5) emotional support; alleviating fear and anxiety
- 6) involvement of family and friends
- 7) managed transitions

Access

At least 1 million seniors are permanently homebound and 2 to 3 million more are so disabled they cannot easily access physician offices. As a result they lack access to regular, ongoing, coordinated care.

Too few house calls are made. Medicare providers bill about 2 million annual visits while there are 2 to 4 million homebound. Many homebound patients never see primary care physicians, or see them only when they are stable and need care less. By contrast, nursing home patients average 9 annual visits, most required by Federal regulations, and sick ambulatory patients average 12 annual physician office visits (S. Levine, J. Boal, P. Boling, "Home Care," JAMA vol 290, no 9, September 3, 2003). For comparable access, the homebound would need 10 to 15 million house calls annually.

Many are of these immobile patients are "high cost" users, with five or more chronic conditions consuming over half of Medicare expenditures ("Chronic Conditions: Making the Case for Ongoing Care," p. 19, Partnership for Solutions, Johns Hopkins University, for the Robert Wood Johnson Foundation (December, 2002); CBO report (May, 2005).

Poor or rich, lack of primary care access causes higher costs. Instead of receiving appropriate, timely primary care for acute declines or new problems, they use expensive ER's and inpatient units.

Quality of Care

Higher quality care is provided by physicians and other mobile medical providers who care for those with medical necessity for home visits.

Home assessments are more accurate and revealing of:

Medical conditions

Compliance

Social supports

Functional needs

Feasibility and practicality of care plans

Medical providers can change therapy on the spot

(Boling, P, Physicians in Home Care: Present and Future, Springer, 1997)

Technical sophistication of mobile care can now equal that delivered in hospitals for most conditions. The explosion in portable technologies has brought testing and diagnosis to the bedside, including blood tests and x-rays.

- Variable cost of an arterial blood gas plus the 8 most common ER lab tests is only \$6.50 plus 5 minutes of clinician time. Fixed capital cost is about \$5,000 for the device.
- Variable cost of a portable chest x-ray at home to rule out pneumonia or heart failure is less than \$10. Capital costs, opportunity and transport costs are greater but far less than an ambulance ride and ER visit.

Consider heart failure, a common reason for Medicare hospital admissions costing \$12,555 apiece. Excepting cardiac catheterization, the main diagnostic tests and treatments needed to sustain patients with severe heart failure can be done at home. AAHCP clinicians routinely make home visits to cardiac patients with New York Heart Association Class IV disease, who by definition (inability to leave home without help or hardship) are appropriate for care at home, and are the most frequently hospitalized for this condition.

Digital photography, computerized records, and broadband transmission expand the range of options.

In the Information Age, it is no longer reasonable to use 911 for primary care access by patients who are too sick to go to the doctor on a "normal" day.

Costs and Cost-effectiveness of Home Medical Care

Home-base primary care (including house calls) is one solution to rising costs of chronic care.

While one house call costs more than one office visit, house calls are more likely to prevent unnecessary and far more costly ER visits and hospitalizations. At \$1,500 per ER visit, the cost of 10 house calls is offset by one ER visit prevented.

House calls also prevent costs associated with office visits: special transport; lost caregiver productivity from accompanying patients to the office.

Rigorous studies that compare a treatment group (mobile medical care) with similar individuals (conventional care) have shown cost-effectiveness in patients with high-cost chronic conditions.

Consider Naylor et al, "Comprehensive discharge planning and home follow-up of hospitalized elders" (JAMA. 1999; 281:613-620). This randomized controlled trial showed 65% reduction in hospital days and 50% cost savings. Similar findings with this model were reported using historical control data at Virginia Commonwealth University (Boling et al. J American Geriatrics Society 2004).

Also see Rich, MW, "A Multidisciplinary intervention to prevent the readmission of elderly patients with CHF" (New Engl J Med. 1995; 333:1190-1195.) There a randomized controlled trial of post-hospital care for high-risk CHF patients produced 50% reduction in re-hospitalization.

A house call program with 91 clients in a Nevada Social HMO produced 62% reduction in hospital days, saving \$439,825 per year in acute, skilled, and sub-acute days, with net savings of \$261,225. (SL Phillips et al, "Chronic Home Care: A Health Plan's Experience" (Annals of Long Term Care; 2004). A follow-up study of Moderate Risk (PRA category) patients compared outcomes for 432 members treated by a geriatric care team with 266 members in standard community practices. The geriatric team saved \$760/member/year, projecting to \$760,000 annually for each 1,000 Moderate PRA members. (SL Phillips, et al, American Geriatrics Society 2004 Annual Meeting).

A 2006 George Washington University conference highlighted two other studies:

- Dr. Thomas Edes presented a national study of VA home and community based care programs (HBPC) with savings in inpatient care (62%) and nursing home days (88%), such that the program was expanded.
- Dr. Bruce Kinoshian presented the Pennsylvania ElderPACT program. For 11 years, this program blended house calls with Area Agency on Aging case managers to produce savings surpassing those in PACE programs.

Private practitioner Dr. Gresham Bayne also reported information contrasting ER visits and home care medicine:

- There were 110 million emergency room visits in 2006.
- 85% did not need immediate physician attention.
- 67% of the elderly arrive by ambulance.
- 80% of admissions were patients older than 75 years.

Frail elderly and disabled persons use emergency departments for primary care with an average ambulance transport cost of \$1,200, plus ER fees, x-rays, and tests. An emergent house call to an established patient in Dr. Bayne's practice with labs, EKG, oximetry, and cardiac impedance costs under \$300. In addition, a costly hospitalization is likely to follow. Giving patients what they want (to stay at home) can save Medicare money.

Earlier, the Call Doctor Medical Group in California compared treating pneumonia in the home rather than the hospital, using 2001 Medicare data. Average cost for hospital treatment was \$5,159 while home treatment cost \$1,000. Estimated annual savings to Medicare for this diagnosis could reach \$1 billion. (H. Finnelli, "House Care and the Housecall," 2001, at www.1800CALLDOC.com)

Summaries of data presented by Edes, Kinoshian, and Bayne are posted by the AAHCP at www.aahcp.org (Meetings/"Upending the Triangle" April, 2006).

In recent years, CMS recognized the cost-saving and care improvement potential of house calls:

- Findings from the "Home Hospital" study at Johns Hopkins University were reported in 2004. This study involves acutely ill elders with high cost conditions (pneumonia CHF, COPD and cellulitis) that met criteria for inpatient hospital care but were treated at home after initial ER evaluation. Good clinical outcomes were paired with costs equal to or lower than hospital care costs. CMS funded a broader demonstration of the model.
- CMS funded the multi-state CareLevel Management demonstration in which high-risk seniors are offered the alternative of medical house calls in a model which rewards physicians for cost-effectiveness. Flaws in the construction of this demonstration make success less likely.

Achieving the full benefits of home care medicine

The potential of home care medicine is far from realized today. Key issues are:

- insufficient numbers of qualified providers in the field
- shortage of organized home care teams
- lack of financial incentives (causing the first two)

Consider optimal care for a frail elder that falls at home: patient is assessed at home; medications are adjusted to reduce fall tendency; patient and caregiver are educated; physical therapy is arranged; obstacles are removed from her walking path to preventing falls. Mainstream medicine favors trips to medical care centers for cardiac and neurological tests, CT and MRI scans, ordered by providers who without knowing her home situation medicate her, restrict her activity, and have no accountability when she falls again and breaks a hip.

Optimal care of the frail elderly and disabled requires a major paradigm shift: the primary site of service should be the residence, not a medical institution. This will require workforce development which will quickly follow incentives.

A New Model

The preferred future model offers seamless chronic care management across settings, with incentives aligned to emphasize prevention and elimination of unnecessary ER visits, inpatient admissions, and nursing home stays. To reach that goal we need a public policy that supports:

- Home-based primary medical care for those in need, who are often Medicare's high cost users with multiple chronic conditions that require complex medical care management;
- Timely response to urgent problems so that patients and caregivers rely less on emergency rooms where costs are higher and the likelihood of hospital admission is great;
- A seamless system where home care medical teams work with home health agencies to maximize their effectiveness in reducing unnecessary ER visits and hospitalizations;
- Physician-led interdisciplinary teams providing coordinated care across settings;
- Shared information systems;
- Integration of chronic medical care and social services targeted to those whose use of nursing homes is most likely to be modifiable.

Performance Management and Improvement

The AAHCP holds that this new model of care must incorporate and embrace forward-looking principles of performance improvement, including clinical and ethical standards, best practices, and benchmarks.

- Access, timely, reliable
- Continuity, including EMR

- Patient and caregiver satisfaction
- Continuous performance improvement
- Best medical practices
 - Designed for the frail: ACOVE not HEDIS
- Accountability

Financing and Incentives

The AAHCP believes that new and better incentives are required to foster development of this new model. This includes both changes to the basic Medicare fee-for-service system of provider payment (short term), and models where medical providers have access to some of the savings accruing to the larger health system as a result of their work (longer term).

Accountability

Paired with improved compensation for medical provider teams must be accountability for use of Medicare resources by their patients, including hospitals, nursing homes, home medical equipment, home health care, and pharmacy.

The AAHCP plan (Independence at Home) addresses all of these requirements. It is a system of payment and care designed for this specific sub-population.