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Integrating Social Services and Home-Based Primary Care for High-Risk Patients

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Abstract

There is a consensus that our current hospital-intensive approach to care is deeply flawed. This review article describes the research evidence for developing a better system of care for high-cost, high-risk patients. It reviews the evidence that home-centered care and integration of health care with social services are the cornerstones of a more humane and efficient system. The article describes the strengths and weaknesses of research evaluating the effects of social services in addressing social determinants of health, and how social support is critical to successful acute care transition programs. It reviews the history of incorporating social services into care management, and the prospects that recent payment reforms and regulatory initiatives can succeed in stimulating the financial integration of social services into new care coordination initiatives. The article reviews the literature on home-based primary care for the chronically ill and disabled, and suggests that it is the emergence of this care modality that holds the greatest promise for delivery system reform. In the hope of stimulating further discussion and debate, the authors summarize existing viewpoints on how a home-centered system, which integrates social and medical services, might emerge in the next few years.

Keywords: social services, health care management, home-based primary care

THERE IS A broad consensus that the US health care system suffers from massive overuse of expensive hospital services, and that financial incentives have built a hospital-intensive system that is both wasteful and often disconnected from patient and family goals. Overreliance on hospital care is seen as having created "hospital-dependent" patients, with hospital-intensive care far too common for patients with financial challenges, family dysfunction, housing instability, or mental health and substance use. Most policy experts agree that the current system lacks the comprehensiveness, flexibility, and geriatrics expertise to meet patients' highest priorities, leaving high levels of unmet need, frequent medical bankruptcies, and major deficits in patient-reported satisfaction and communication with health providers.

The premise of this review article is that an alternative, population-based delivery system will need to shift care

closer to patients' homes while combining traditional medical care with home- and community-based behavioral health and social services. The need for home-centered care is most pressing for our sickest, highest cost, end-of-life, and homebound patients.³ This review focuses on the prospects for integrating social services with the health care delivery system for our most vulnerable patient populations. This article examines the historical context for delivery system transformation, while reviewing what seem to be the most promising and innovative current approaches. It reviews the evidence about home-based primary care (HBPC) programs, which provide longitudinal care for medically complex patients. This article also summarizes principles of home- and person-centered care based on coordination of social services with new models of integrated medical care, and speculates about how change may emerge in the coming decade.

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Evidence for the Value of Social Support and Home-Based Medical Care for Improving Population Health

Over the last 2 decades, biomarker and other social epidemiology research has described a wide array of associations between social and environmental conditions and physical and mental health over the life course. Our growing knowledge of social determinants of health has led many to think about how to reconfigure our health care system to address patients' broader life experiences, although how to address social needs remains controversial. In this context, it is worth reviewing how health services researchers have documented the extent to which addressing patients' social needs has a measurable impact on health care costs, health status, and patients' well-being.

There is an implicit belief that providing social services to our most needy residents is intrinsically a public good that alleviates suffering and provides essential support to family caregivers. A recent study found that the ratio of state social services and public health spending to Medicare and Medicaid spending on direct provision of care was associated with better outcomes on 7 subsequent measures of morbidity and mortality. However, despite the more than \$200 billion spent annually for long-term services and supports, specific value and outcomes for patients with difficulties with basic and instrumental activities of daily living are often ambiguous. The value of social services has rarely been measured either for discrete types of service provision or across multiple domains. Naylor et al have recently shown the difficulty in using quality of life measures or physical and cognitive functional status outcomes to evaluate the value of long-term services and supports.⁵ Early evaluation of the Centers for Medicare & Medicaid (CMS) Community-based Care Transitions Program, designed to link hospitals with community-based social service organizations, primarily using the Care Transitions Intervention model, has yet to show wide-ranging results on early readmissions and emergency department (ED) use.6

The evidence base and methodology for measuring the effects of publicly-funded long-term services and supports on health remains a work in progress. Naylor et al recently conducted an extensive review of state-level efforts to address access, patient choice, quality of care, support for caregivers, care transitions, health disparities, and cost-effectiveness through expansion of noninstitutional options, payment reform, delivery system integration, and market-based solutions. The evidence for these approaches was uneven and the authors conclude that "at this point the limited breadth of the studies and syntheses reviewed preclude any overall assessment of impact."

Finally, it has been known since the 1990s that Medicare home health services do not reduce inpatient care for Medicare enrollees and are frequently used as long-term care. The now ancient Medicare skilled home health benefit, narrowly construed as temporary nursing and rehabilitation assistance during recovery after an acute episode, often prescribed during a moment of crisis, leaves no care coordination "handoff" when services are terminated. Medicare home health patients often are left to manage symptom progression or medication reconciliation on their own when benefits expire. Physicians who order home health services

rarely actively manage or communicate with home health nurses. The highly discretionary nature of physician home health service prescriptions results in even wider geographic variation in per capita Medicare costs than inpatient hospital use. 9.10

Learning from Successful Acute Care Transition Programs

Dating back to at least the 1990s, studies of hospital discharge planning for high-risk patients have repeatedly found that addressing patients' social needs can reduce early readmission rates. This has been particularly true for patients with lower socioeconomic status, who live alone, and who have unmet functional needs and deficits in self-management capabilities. 11,12 Hospital transition care programs have struggled to link patients to affordable housing, transportation, homemaker services, nutrition, emotional support, and legal assistance, all of which have the potential to reduce ED visits and hospital admissions. Shier et al recently described the successful attributes of 7 of these transition care social service coordination models, concluding that "the depth and breadth of social services that may be provided when implementing these care models makes it obvious that incorporating the social dimension requires more than simply adding a care coordinator to the [hospital discharge planning] team." ¹³ In contrast to failed, strictly medical approaches to post-discharge "disease management" care, programs that utilize comprehensive social needs assessments and home visits have been particularly successful in reducing hospital use and costs. 14,15

How Might Payment Reform Influence Social and Clinical Care Integration?

The main obstacle to integrating social services into health care has been the perverse incentives created by the "medical necessity"-based fee-for-service reimbursement system. To date, there are few financial incentives for health system efforts to systematically integrate social services into primary care. The potential financial burden of social services coordination or direct provision of social services is, of course, greatest for safety net providers who care for the lowest income, most vulnerable, and often most medically and behaviorally complex patients.

More than 3 decades ago the idea was tested that a capitated system for seniors, particularly those who are homebound and frail with multiple chronic conditions, could yield significant savings in reduced hospital costs as compared to existing feefor-service care. Coordinating social services into care management was the impetus, in the 1970s, for the creation of social health maintenance organizations and later programs such as the Programs of All Inclusive Care for the Elderly (PACE) for Medicare-Medicaid dual eligibles. 16,17 PACE programs, which utilize integrated social and clinical care in day center settings, now exist in 29 states and have been associated with improved functional, mortality, satisfaction, and nursing home admission outcomes. ¹⁸ A number of other innovative programs also have successfully integrated medical and state long-term services and supports.^{7,19} Recently, Davis et al summarized 9 successful innovative care delivery and payment programs for high-risk Medicare populations, each of which was found to reduce hospital use and, in some

cases, improve survival.²⁰ But as that review notes, despite some innovative local primary care practices²¹ and efforts by large integrated delivery systems such as Kaiser Permanente and the Veteran's Administration,^{22–24} social and medical care coordination models were never widely disseminated in the US health care system.

This may be changing. Long envisioned possibilities for integrating community social services and behavioral health promotion into population-based efforts to create innovative, accountable health systems are increasing. The CMS shared risk and "bundled" payment reform initiatives may incentivize promising approaches such as this to socially and clinically coordinated care, based on integrated team care approaches. For instance, the CMS Financial Alignment Initiative for dual eligibles has several dozen states experimenting with either capitation or integrated fee-forservice care models, although the ability to scale up these programs remains controversial.²⁵ Capitated Medicare Advantage plans are growing in popularity and managed care plans are increasingly using innovative delivery system models that incorporate navigators for home- and communitybased services. CMS recently announced a 5-year, \$157 million program for providing a range of social services across the Accountable Health Communities model, ranging from screening for "health-related" social needs to integrated social and clinical case management.²⁶

States are using new CMS Financial Alignment Initiatives to experiment with funding for education, training, housing, community health worker home visits, and assistance with selfhelp and support groups.²⁷ One example, the Community Aging in Place-Advancing Better Living for Elders program, uses home visits by nurses, occupational therapists, and a handyman to assist dual eligible patients in attaining their functional goals, including a \$1300 home improvement budget.²⁸ Finally, new, more comprehensive social service provision may be enhanced by programs such as the Balancing Incentive Program, authorized by the Affordable Care Act (ACA), which incentivizes states to increase access to homeand community-based long-term services and supports. With this enhanced federal funding, states are implementing "No Wrong Door/Coordinated Entry Point" protocols that broadly advertise the availability of social services to their functionally limited populations, including state hotline numbers, state websites with detailed local community services and supports resources, provision of "conflict free" case management services, standardized functional assessment tools, and in some states, flexible patient "self-directed" long-term services and supports programs.

Where Change Might Be the Fastest: HBPC

Perhaps the greatest potential for change in next few years is through growth of HBPC programs. Programs can serve all Medicare patients through home visit fees, or can be an option in Medicare Advantage plans. HBPC programs serve the younger disabled population, and seniors who are homebound and frail with multiple chronic conditions. HBPC practices often work in conjunction with hospice care for patients at the end of life. The 12 million adults with both multiple chronic conditions and functional limitations in activities of daily living have 3 times the per-person medical spending, 3 times the hospitalization rate, and twice

the ED visit rate as the 79 million adults with multiple chronic conditions but no functional limitations.²⁹ Within this group, an estimated 4.3 million people "require a considerable and taxing effort" to leave home.³ This is a very vulnerable population with very high rates of depression, dementia, psychiatric multimorbidity, functional disability, and high annual mortality rates.

Although there has been rapid growth in Medicare house call visits to more than 1.7 million in 2012-2013, almost half of these were made by only 470 providers who averaged 1600 visits per year with 10-fold geographic variation in Medicare house call expenditures per capita across states.³⁰ Despite the fact that the frail homebound population is larger than the nursing home population, there were more than 7 times more physicians making nursing home visits.³⁰ Along with the potential growth of house calls to assisted living facilities and the development of "hospital at home" programs, HBPC seems primed for major expansion in the next few years if training and practice opportunities are created for additional providers. This will require flexibility to cover home-based care staffing options, such as the mix of credentialed providers and the intensity and length of follow-up assigned to patients.

Advantages of HBPC Over Traditional, Office-Based Care

The potential growth of HBPC is based in part on the growth of portable medical and home monitoring technologies, which have made house calls more effective. HBPC visitors, usually physicians or nurse practitioners but often including other health professionals, can handle everything from x-rays, ultrasound, and oximetry to wound care, foot care, administering injections, and changing feeding tubes, and ensuring proper use and understanding of home medical equipment. Home visits allow providers to directly see and address medication management issues, including direct observation of patients' medication use and "kitchen table" medication reconciliation. HBPC providers can quickly identify patients with inadequate nutrition (the "refrigerator biopsy"), safety hazards like fall risks around the home, caregivers without sufficient training or respite, and lack of transportation. More severe conditions can include elder abuse and neglect. Home visitors can engender the additional trust needed to coordinate family decision making, especially for end-of-life patients. Patients save time engaging in normal home activity if a provider is late for a visit, while house call providers prevent high office no-show rates. Patients who trust their house call providers are more likely to use call centers (almost all HBPC practices have 24/7 urgent care coverage) to arrange urgent care visits for worsening symptoms instead of calling 911 and visiting a hospital ED via ambulance.

Evidence for the Effectiveness of HBPC

Despite several controlled studies of HBPC that demonstrated cost-effectiveness as compared to Medicare fee for service or traditional VA care, ^{22,31} because of the paucity of high-impact studies, considerable doubt remained about the weight of the evidence. A 2016 Agency for Healthcare Research and Quality comparative effectiveness review of 19 studies of HBPC found only moderate evidence that

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HBPC reduced hospital use, no evidence of reduced readmissions, low evidence of overall cost savings, and insufficient evidence of effects on nursing home admissions or days. The reviewers found little evidence of improved symptoms, function, or mortality and low evidence of improved patient or caregiver quality of life or satisfaction. However, since then, there are the first 2 years of results from the CMS Independence at Home Demonstration (IAH) project involving 17 HBPC practices and 8400 chronically ill, previously hospitalized, and multiple functionally limited Medicare patients. Remarkably, first year savings over a severity of illness matched fee-for-service population totaled \$25 million (more than \$3000 per beneficiary); second year savings, based on a recalculated comparison group methodology, were more than \$700 per patient. The service of the savings of the service of the savings of the savings

Measuring the Quality of Home Care

Considering this very promising evidence of costeffectiveness, major challenges remain for establishing quality standards for HBPC, particularly considering the potential for fraud and abuse of vulnerable patients. Leff et al have argued that current HBPC practices operate in a "quality desert.",³⁴ New quality measures for home-based and palliative care, which will inherently differ from traditional disease-specific metrics, are being tested nationally and will be required to measure the extent to which HBPC improves health and functional status, to regulate and accredit home medical care providers, and to provide pay-for-performance incentives for health systems and third-party payers.

Integrating HBPC and Home-Based and Community Services

HBPC patients invariably have significant nonmedical social needs that affect their health and quality of life. HBPC thus offers a great opportunity to merge social, medical, and palliative care into a single team effort. HBPC providers are able to work directly with family and paid home caregivers, providing both medical education and assessing their needs for respite care. HBPC-affiliated social workers/case managers can make a more intimate home assessment of patients' psychosocial needs (including mental health, social isolation, and family decision-making issues) and link patients to community services, volunteer support groups, nutrition counseling, home repairs to reduce fall risk, transportation options, and even legal assistance. One experienced, cost-effective California house calls program, which cares for complex homebound patients covered by Medicare Advantage, conducts initial 1.5hour multidisciplinary comprehensive home assessments (jointly by nurse practitioners with social workers), documenting a care plan with an electronic health record that is jointly used by physicians, medical assistants, and weekly care conferences. 35 This program has both longitudinal and acute transition care patients, with referrals from hospitalists, primary care physicians and skilled nursing facilities, and can "discharge" patients back to regular primary care when stable. Although this may be the current state of the art in HBPC, unfortunately, most HBPC practices are not equipped or staffed to coordinate social service needs and might not know what services are even feasible for the patient to receive because of limited access, unknown quality, or the ability of the patient to cover costs of services.

Conclusion: How Might Change Occur?

An emerging consensus exists about common attributes of successful integrated care programs for high-cost, highneed patients. These attributes are repeatedly characterized as (1) a comprehensive initial needs assessment and higher intensity care for the most complex patients; (2) leadership from and ongoing, multidisciplinary communication between a variety of health care and social service professionals, not just physicians; (3) care coordination teams with close working relationships with providers and information systems geared to timely, need-based care; and (4) time for interaction and engagement with patients, caregivers, and families that can create trust and reliance on rapid responses to health crises.^{36,37} These are programs that can monitor patient problems in time to avoid crises, can mobilize and coordinate critical social services, have 24/7 call center coverage and quick response capabilities, have resources to cover cost-effective nonmedical expenditures, and have the trust of patients experiencing symptom progression or anxiety. This type of care will require new types of nonprofessional degree providers (eg, community health workers, health coaches, medical assistants), new forms of team-based provider training, and new approaches to patient activation, education, and engagement.³⁸ Programs that integrate social services with medical care also will need new medical records, structured around patient needs, goals and issues, interdisciplinary provider communication, and caregiving tasks rather than billing and coding of discrete encounters.³

The Home Care Policy Debate

Thinking ahead over the next decade, what are the prospects for a new system of health care capable of dramatically shifting resources from the current hospital-based system to home- and community-based care for high-risk patients? Policy prescriptions differ in their assumptions about the political economy of the US health care delivery system, the range of the possible, and the principal agencies capable of leading a transformation. Some emphasize the growth of managed care organizations seeking to benefit from capitated payment models, but there are doubts about whether third-party care management organizations would have the market power to offset provider dominance of the delivery system through selective contracting. Others see the growth of large, integrated accountable care provider organizations that can capitalize on shared savings incentives for population-based care. However, those organizations, many with huge investments in hospital infrastructure, often lack the degree of market power to control costly post-acute care services, particularly skilled nursing facilities, long-term acute care hospitals, and home health agencies. Although hospital system leaders often remain wary of investment in high-cost, "high-touch" home-based services, rival home care providers seek to grow by reducing expensive, specialized "brick and mortar" hospital-based technologies. Some policy advocates favor a different approach through leadership from community coalitions that invest in integrated medical care and social services and supports, which are highly local in nature, with leadership and control vested in community coalitions rather than health care provider organizations. ⁴⁰ This approach would require both unified community governance and major adjustments to legal, regulatory, financial, and professional quality standards, with an emphasis on not-for-profit care.

Especially in the wake of potential ACA repeal, the role of the federal and state government in fostering delivery system changes will be crucial. ACA legislation was premised on shifting payment incentives to align better with population-based health outcomes. For instance, will CMS continue to incentivize states to increase the proportion of Medicaid spending on home- and community-based services as opposed to institutional nursing home care? Will Medicare approve a proposed benefit that would make house call practices financially viable? Other technical and infrastructural barriers will need to be overcome. Can foundationsupported efforts to achieve financial integration between health and social services gain regulatory traction? Can home health agencies, which currently have by far the greatest clinical reach into patients' homes, be the foundation for a new home-centered delivery system? As the proportion of working-age adults to elders shrinks to less than half of its current ratio by 2050, and the provision of care for the chronically sick and disabled increasingly falls on millions of unpaid or low paid caregivers, will Americans find the political will to make addressing social determinants of health the primary focus of our health care system?

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