THE INTERDISCIPLINARY TEAM IN THE MANAGEMENT OF CHRONIC CONDITIONS: HAS ITS TIME COME?

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PARTNERSHIP FOR SOLUTIONS

Better Lives for People with Chronic Conditions

Mount Sinai School of Medicine

January 2003

Prepared for Partnership for Solutions...Better Lives for People With Chronic Conditions Johns Hopkins University supported by the Robert Wood Johnson Foundation

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INTRODUCTION

The Medicare program began in 1966 as the principal source of health insurance for most of the nation's elderly. It was based on the standard health insurance product of the time, one that had an acute, episodic orientation geared to working families. That orientation has become increasingly inadequate for a Medicare population with increasingly complex, chronic needs. Medical technology has advanced to allow Medicare seniors to live longer lives, but often with medical conditions that require ongoing care. In addition, two populations with chronic health needs—people with End Stage Renal Disease (ESRD) and people with disabilities—have been added to the program and constitute increasing proportions of beneficiaries.

In part for these reasons, today's elderly or disabled Medicare beneficiary is quite different from the beneficiary of 1965, and so are her needs. The average beneficiary has several chronic conditions. One in five have at least five chronic conditions¹ and one in four are unable to care for themselves in at least one significant way, such as feeding, bathing, or toileting.ⁱⁱ Today's beneficiary has a greater need for on-going care rather than the episodic care the program was designed to provide. She has a multitude of doctors, other clinicians, medicines, and insurers and receives too few, too many, or the wrong services. As her number of chronic conditions increase, so too do the number of inappropriate hospitalizations for illnesses resulting from ineffective ambulatory treatment.¹¹¹ She may experience a wide range of non-medical needs as well, ranging from transportation and home modification to homemaker and adult day care services. Yet Medicare does not foster coordination among care providers, and it does not reimburse or help arrange for supportive services. Beneficiaries with multiple, serious chronic conditions and their families generally must handle these on their own. Over the years, clinicians and researchers have promoted or experimented with different delivery models to better care for these complex cases.^{iv} The outcomes have been largely unsatisfactory or non-replicable. For some time, the managed care model was considered the best hope for addressing complex needs. A few specialized managed care plans have indeed lived up to this aspiration, but large-scale Medicare managed care has predominantly focused on healthy beneficiaries, and in any event, its availability in Medicare has declined dramatically in recent years.^v The focus is now turning instead to finding ways to improve care for complex cases in fee-for-service Medicare, usually through some form of care management.^{vi}

The term "care management" covers a wide range of programs and proposals, from those that provide occasional over-the-phone referrals to specialists and medication checks to more intensive programs including in-person assessments and frequent ongoing monitoring of health conditions, team consultations and care planning. The geriatrics community has called for the use of interdisciplinary teams to provide an intensive type of Medicare care-management benefit, maintaining that the complex medical and psychosocial needs of the most vulnerable Medicare beneficiaries require the expertise of many professional disciplines—physicians, nurses, pharmacists, social workers, therapists, dieticians, counselors—and that those needs are best served by the professionals working together as a team.^{vii}

Medicare has been a proponent of a team-based approach on the inpatient side, requiring the use of teams for care planning, but its experience with teams for outpatient care has been extremely limited. This experience has come from two special programs for frail or terminally ill beneficiaries—the Program of All-Inclusive Care for the Elderly (PACE) and Medicare's hospice benefit. Both are models of high quality, coordinated, and comprehensive care. Interdisciplinary teams are at the heart of both these programs, what many consider their essence, and although there is no evidence that the teams per se are solely responsible for the success of PACE and hospice, few would dispute that teams are critical, essential elements. Enrollment in PACE and hospice has languished, however, because they require beneficiaries to give up something important to them -- their fee-for-service physician in the case of PACE, and continuing active treatment in the case of hospice—but it is rare to find critics of either program: they are each heralded as models of the way chronic care should be delivered.

Nevertheless, there are important questions about whether the apparent success of interdisciplinary teams in those two programs can be transplanted to a fee-for-service environment. There are some major operational and cost obstacles to using teams. PACE and hospice have been able to overcome some of them because of specific design elements: each program is capitated, PACE on a per-enrollee basis and hospice on a per diem basis, their providers are salaried, and most of their providers are co-located. As the pressure for a care-management benefit heats up, the role of teams will take on increasing importance. Is it possible to borrow aspects of the team concept from successful comprehensive programs and adapt them to what would be a more modular care management benefit in regular fee-for-service Medicare? This paper begins to explore some of the challenges and opportunities in using teams to manage the care of Medicare's medically vulnerable beneficiaries, and examines if and how teams might operate in this somewhat foreign environment.

BACKGROUND

Health care teams are not new, dating back to the 1940's and early 1950's when physicians Martin Cherkasky and George Silver advocated a team approach to delivering primary care services. In their approach, the physician, nurse, and social worker worked together caring for families, emphasizing health services and prevention.^{viii}

Those early efforts have led to a variety of types of teams. Teams can be comprised of a variety of professionals (physicians, nurses, nurse practitioners, physical and occupational therapists, social workers, pharmacists, spiritual counselors, as well as family members); teams can be limited in number to two or consist of as many as 12 or more. They can be institutionally-based or outpatient-based. They can meet formally around a table, by telephone, or, in some cases, by computer, and can be limited to conducting patient assessments or be involved in the entire process of caring.

Health care teams are typically divided into three types, defined by the degree of interaction among members and the sharing of responsibility for care. At one end of the

continuum is the *multidisciplinary team*. Hierarchically organized, multidisciplinary teams traditionally are led by the highest-ranking team member. Members of different disciplines work independently assessing patients, setting goals, and making care recommendations. There may be meetings to discuss progress, but generally there is very little direct communication among team members. They work in parallel to each other, with the medical record often serving as the vehicle to share information. The multidisciplinary team consists of members of different disciplines, involved in the same task and working alongside each other, but functioning independently. Each member does his or her own thing without explicit regard to the interaction.^{ix}

At the opposite end of the continuum is the *transdisciplinary team* in which each team member becomes so familiar with the roles and responsibilities of the other members that tasks and functions to some extent become interchangeable.^x Because it is so rare and difficult to operationalize, this type of team will not be discussed further here.

In the middle of the continuum is the *interdisciplinary team*. In the interdisciplinary team, members work together interdependently to develop goals and a common treatment plan, although they maintain distinct professional responsibilities and individual assignments.^{xi} In contrast to multidisciplinary teams, leadership functions are shared. Members of interdisciplinary teams must make dramatic adjustments in their orientation to their co-workers. Team members are expected to engage and learn from each other and to attend regularly scheduled meetings.^{xii} Although frequently referred to as multidisciplinary teams, the teams in PACE and hospice are actually interdisciplinary.

According to one pioneering scholar of team management, the interdisciplinary team is "a group of persons who are trained in the use of different tools and concepts, among whom there is an organized division of labor around a common problem with each member using his own tools, with continuous intercommunication....and often with group responsibility for the final product."^{xiii} As one national PACE organization leader described it, in PACE as in other interdisciplinary environments, there is "collective ownership of the care plan."^{xiv} The team concept assumes that the problem being addressed is so complex that no one discipline alone possesses the expertise or information to address it. In a smoothly functioning interdisciplinary health care team, services are provided by an integrated group of professionals who coordinate health care services across a variety of disciplines. The team members work well together and believe that the combined contribution of the team is greater than any one discipline can provide. Team members from different disciplines work interdependently, collectively setting goals and sharing resources and responsibilities.^{xv}

To better understand what interdisciplinary team care management is and how it functions, consider the following hypothetical case:

Seventy-nine year old Molly has diabetes, congestive heart failure, hypertension, elevated cholesterol, and arthritis and needs assistance with some of her daily activities. She lives alone, but is cared for by her daughter next door with help from visits of a home health aide. Her aide has just reported elevated blood sugar

readings to the rest of the care team in their regular daily meeting. The pharmacist suggests that the recent addition of cortisone could cause the elevated blood sugar count. Her physician reports that her arthritis was not responding to normal treatment and the cortisone was necessary to relieve some of the swelling and pain. The social worker suggests that the elevated sugar could be a response to increased stress—Molly's daughter is getting a divorce, which is upsetting Molly tremendously, and Molly's daughter-in-law is now bringing her the meals, also upsetting to Molly. Upon hearing about the change in the preparation of meals, the dietician fears that high sugar could be because the daughter-in-law is not adhering to Molly's strict diet, perhaps bringing her sweets to curry favor. Given the multiple possible causes, the members of the team settle on a care plan that will address family caregiver and diet change before removing the cortisone. The social worker will meet with Molly to try to assess the role of stress, particularly that caused by the daughter-in-law. She will meet separately with the daughterin-law and talk about diet and her interaction with Molly. The nurse practitioner agrees to review the blood sugar reading daily. If the elevated sugar doesn't quickly abate, the physician, after consulting with the pharmacist, will reduce the cortisone dosage or switch to another drug.

This type of care planning—considering all the factors involved in a person's health—would be difficult for a physician or nurse practitioner acting alone. The interdisciplinary team was able to catch Molly's elevated sugar early because of their direct link to home care. The team also mooted a variety of possible causes and contributing factors for Molly's condition, and it had the resources to address all of them in parallel. Had the team not met and discussed the case in person, some of the multiple aspects of Molly's condition—the stress of her change in caretaker, the new medication, and the possibility of problems in her diet—might well have gone unattended.

Complex cases necessitate the involvement of multiple disciplines besides the doctor and nurse—the pharmacist, social worker, dietician, therapist, etc. If they function independently, the patient may not be well served. But, with the benefits to comprehensive, interdependent team care planning also come operational hurdles and heightened costs. Consensus decision-making is difficult under any circumstances and particularly when people are trained (as most medical professionals are) in a more hierarchical environment. The more people involved in a team and the more the team interacts, the more difficult the process and the more barriers to success they must overcome. Team meetings also take up a lot of time—while the case of Molly discussed above was triggered by a noticeable spike in her sugar, interdisciplinary environments more often rely on meetings and assessments of every patient at some regular interval, taking up a substantial amount of time each day. Policymakers will need to weigh these costs against the benefits, and, as described below, the benefits are not yet clear.

TEAM EFFICACY

As stated earlier, the geriatrics community, specialists in caring for the elderly, consider the use of interdisciplinary teams the ideal method of assessing patients' needs

and delivering patient care. The American Geriatrics Society has repeatedly promoted teams as providing the best quality care for patients with multiple chronic needs. The **Merck Manual of Geriatrics** states, "Not all elderly patients need a geriatric interdisciplinary team. However, for patients who have complex medical, psychologic, and social needs, teams are more effective in assessing patient needs and creating an effective care plan than are professionals working alone."^{xvi} **In A National Agenda for Geriatric Education**, the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services asserts, "There is agreement that the complex characteristics of the older adult dictate an interdisciplinary approach to health care services."^{xvii} And, in its landmark study, *Crossing the Quality Chasm*, the Institute of Medicine concluded that the health care delivery system is poorly organized to provide care to a population increasingly afflicted by chronic conditions. One remedy, the Institute concluded, is to provide team-based care to coordinate all aspects of patient treatment, from medical exams to social services.^{xviii}

The notion of interdisciplinary teams is appealing on its face—in most complicated things in life, people working together to achieve a goal are more effective than individuals working alone—and this growing faith in the effectiveness of teams is not surprising. However, it does appear to be largely a matter of faith: a strong empirical basis has not yet been established that demonstrates that teams are effective in caring for the frail elderly. There is general agreement that Medicare's PACE and hospice programs are effective, but while teams are part of their models, they are not the entire model. Other aspects of PACE and hospice may be necessary contributory factors to making teams work for them.

Little research to date has documented the effectiveness of teams in improving outcomes or costs. In most cases, teams have been evaluated only as a part of research studies that have focused on outpatient geriatric assessment not on teams per se; although teams are used to conduct the assessment, the independent variable is the assessment, not the team. Rarely is the team the object of the study. Furthermore, it is difficult to demonstrate the efficacy of teams, particularly interdisciplinary teams, when the structure of the team varies so much in practice: a team can have diverse compositions of disciplines (sometimes a physician, nurse, and social worker, sometimes a physician, pharmacist, and nurse practitioner, etc.), and can range in size from two or three to eight, ten, or more members, each representing different professions.

In a recent meta-analysis evaluating the evidence on the effectiveness of outpatient comprehensive geriatric assessment and geriatric team management, the investigators analyzed 13 randomized controlled trials and found that none of the trials demonstrated statistically significant reductions in mortality; six out of 13 reported improvements or improved maintenance of physical functioning, but one of those also reported a non-significant increase in mortality; no trials demonstrated a reduction in hospital admissions and one showed a reduction in nursing home utilization. Again, however, it was the assessments that were the object of study, not the team.^{xix} In its paper on geriatric education, HRSA suggests benefits from comprehensive geriatric assessment, and then adds, "and by implication, interdisciplinary team work."^{xxx}

Even in cases where teams have been the focus of studies, the results are unclear. One study, conducted in the late 1980's, found that geriatric assessment conducted by a multidisciplinary team rather than a panel of internists led to reduced hospital use, accounted for by a small portion of patients. No significant differences were found in patient or caregiver satisfaction, the process, functional ability, or health status.^{xxi} Another meta-analysis reviewed the literature on team effectiveness in health care and human services settings, examining whether they showed improvement in quality of care and satisfaction or reduction in costs. It found that the "literature repeatedly endorsed the team model, with little empirical evidence of efficacy."^{xxii} The meta-analysis also found that the authors of this literature simply assumed the value of teams. A review of 2,200 abstracts and analysis of more than 200 articles showed confusion in the use of terms and little empirical evidence for the efficacy of interdisciplinary teams. "Although strengths and weaknesses were outlined by those writing about interdisciplinary teams, the conceptualizations and descriptions of the teams were so poor that reliable conclusions could not be drawn."^{xxiii}

Although hard evidence for efficacy of interdisciplinary teams is lacking, the two most successful efforts in managing care for Medicare beneficiaries with chronic illnesses have put interdisciplinary teams at the heart of their operations. The success of the PACE program and the Medicare hospice benefit in the last two decades provide ample reason to perform the needed health services research on the efficacy of interdisciplinary teams.

PACE

The Program of All-Inclusive Care for the Elderly (PACE) is a capitated benefit that features a comprehensive services delivery system and integrated Medicare and Medicaid financing. It dates back to 1971, when the Chinese community in San Francisco came together to find ways to keep frail elders at risk for nursing home placement and hospitalizations in their community. PACE was authorized as a Medicare and Medicaid demonstration in 1986 and as a regular Medicare program benefit in 1997. PACE serves frail seniors assessed as being eligible for nursing home placement. The heart of the PACE model is adult day health care and team case management, through which access to, and allocation of, all health services are controlled. Physician, therapeutic, ancillary, and social support services are provided on site at the adult day center whenever possible. The list of covered services is extensive-all Medicare and Medicaid services in the state in which the particular program operates, social work, personal care and supportive services, nutritional counseling, recreational therapy, transportation, drugs, and many others. Except for emergencies, any service not authorized by the team is not covered. Physician, therapeutic, ancillary, and social support services are furnished in the beneficiary's residence or on-site at the adult day health center, except under unusual circumstances when care at those locations is not feasible.

The team is composed of at least the following members: primary care physician, registered nurse, social worker, physical therapist, occupational therapist, recreational

therapist, dietician, PACE center manager, home care coordinator, personal care attendant. An initial comprehensive assessment is performed for each beneficiary. Each member of the team evaluates the participant in person and develops a discipline-specific assessment but then the team must consolidate the discipline specific assessments into a single plan of care. The team continuously monitors the beneficiary's health and psychosocial status and at least twice a year reevaluates the plan of care. Because of their direct responsibility for home care and their frequent interactions with beneficiaries in the day centers, team members have many opportunities to hear of, or witness, changes in condition or circumstances that might warrant a change in care plan.

PACE usually uses a facilitator to lead the team meetings. The team is responsible for the initial assessment, periodic reassessments, the plan of care, and coordinating 24-hour care delivery. The team conducts daily morning meetings and weekly team care planning meetings. Each member of the team must regularly inform the team of the medical, functional, and psychosocial condition of each beneficiary and each team member must document changes in the beneficiary's condition in the medical record. ^{xxiv}

Because of the reliance on the team for effective operation, the ability of a potential PACE staff member to participate comfortably in a team environment is a critical element in any hiring and firing decisions. Poor team performance is much more likely to lead to firing a staff member than poor clinical performance. And discomfort with "letting go" of the hierarchical mindset is the most likely reason for a staff member to resign.^{xxv}

Hospice

Hospice began in the U.S. in 1974 in New Haven, CT. Six years later, Medicare launched a hospice demonstration and in 1982, a permanent hospice benefit was added to the Medicare program. Hospice care is based on the philosophy that each person has the right to die pain-free and with dignity, and that families and friends should receive the necessary support to allow that to happen. The focus is on caring, not curing. Hospice also uses a team-oriented approach to medical care, pain management, and emotional and spiritual support tailored to the needs and wishes of the patient. In order to receive hospice services, beneficiaries must be terminally ill, have a life expectancy of six months or less, and elect to receive strictly non-curative treatment for their terminal illness.^{xxvi} Beneficiaries waive standard Medicare benefits for curative care but receive physician, home care, medical supplies, and other Medicare services as long as the services relate to the terminal diagnosis and are consistent with the care plan. In addition, beneficiaries receive prescription drugs for symptom control and pain relief, and a variety of non-medical services that are not traditionally covered by health insurance, such as chaplain services, social work and counseling, and bereavement counseling. Medicare pays hospices on a capitated per diem basis that covers almost all services the patient receives. It also covers the activities of the interdisciplinary team. Hospices are required to use an interdisciplinary approach to assessing the medical, physical, social, emotional, and spiritual needs of the patient and to continue this approach while caring for the patient and family. The attending physician, medical director, and the team are

responsible for the plan of care and changes to it. The hospice interdisciplinary team consists of the medical director, nurse, social worker, and chaplain, and may include home health aides, volunteers, and others.^{xxvii}

CHALLENGES TO MEDICARE TEAM-BASED CARE MANAGEMENT

As the Medicare population becomes increasingly characterized by multiple chronic conditions and as health care stakeholders grow more aware of the limitations of our health care system in dealing with chronic illness, the drive for adding care management to Medicare intensifies. However, care management means different things to different people and not all the configurations lend themselves to a team approach. Care management can be used for a single condition or disease, typically called "disease management" or for a constellation of conditions; eligibility can be based on specific conditions, on the number of conditions, or on the extent of functional limitation. It can be designed principally to reduce spending or principally to maximize quality of life for the beneficiary. Care-management services can range from a care manager simply reminding people to take their medicines to figuring out what care they need (assessment and care planning), helping them to get it (coordination), and making sure it is working out (monitoring).

The Center for Medicare Advocacy, a national advocacy organization specializing in Medicare coverage and appeal issues, recently sponsored the development of a recommendation for a coordinated care benefit (a.k.a. "care management") in the traditional fee-for-service Medicare program. Following a two-day conference of 50 care providers, policy-makers, researchers, and advocates, the group recommended that a care-management benefit be added to Medicare for persons suffering from multiple or complex chronic conditions.^{xxviii}

The Centers for Medicare and Medicaid (CMS, the Agency that runs Medicare) is currently implementing a national care coordination/disease management demonstration incorporating 15 different programs. All 15 programs are expected to be budget neutral—that is, to offset costs, including the cost of care management, with reductions in medical utilization. The demonstrations have features that lend themselves to incorporation of a team-run care management benefit: they target beneficiaries with chronic conditions that represent high costs to the Medicare program and receive an administrative care management fee on a per enrollee per month basis.^{xxix} Nevertheless, teams are not an explicit aspect of the project, and while it is possible that some specific sites are employing them, these demonstrations are not currently designed to evaluate the efficacy of interdisciplinary teams as such.

Like care management itself, the use of teams in a care-management benefit can also vary significantly and can mean anything from a multidisciplinary team in which two clinicians share information about a patient through the Internet to an interdisciplinary team in which 12 clinicians meet daily to butt heads and try to agree on how to care for their patients. The structural challenges to using team-based approaches can vary as well and can be formidable indeed, as described below.

Infrastructure

Like any team-in sports, in operating rooms, etc—care management teams must practice and work together often in order to be effective. Hospital quality improvement studies have shown that surgical mortality rates decline as the surgical team as a whole does more surgeries. Some of the biggest impediments to the use of teams in fee-forservice practice, particularly interdisciplinary teams, are the lack of a physical and/or institutional home and lack of an infrastructure. In PACE and hospice, the teams are located in one place and most team members are employees of the organization. Medicare PACE regulations require that the physician, registered nurse, social worker, recreational therapist, home care coordinator, and personal care attendant all be employees; hospice regulations require that all core services (physician, nursing, medical social services, and counseling) must be provided directly by hospice employees.

For interdisciplinary teams, it makes sense for most members to be co-located. Most physician practices do not have enough complex cases, however, to justify establishing employment of the various team members. Home care agencies could be the base to most members of a team except physicians, and home health agencies serve many of Medicare's most complex cases with the greatest need for combined medical and psychosocial monitoring. Registered nurses, social workers, therapists, and personal care attendants may now all work for some home care agencies. The trick, of course, is getting them all to coordinate and cooperate on the planning and care of patients and for their activities to be integrated with those of the primary care physician and nurse practitioner.

For multidisciplinary teams, which may not be physically meeting together, colocation is not necessary as long as the same people continue to serve on the same team. It is a matter of sharing patient information and eliciting input from all the persons involved in the patient's care.

Team Process

On the face of it, successful participation in an interdisciplinary team would not seem to be all that difficult. After all, most of us have participated in team sports, surgical operating suites are staffed by teams, airplanes are operated by teams, and team collaboration characterizes almost all job environments in one way or another. However, in those and many other team enterprises, the team functions more like a multidisciplinary team with someone very much in charge and each team member fulfilling his or her own role. The coaching staff or, in some cases, the quarterback calls the plays. The running back and wide receivers may make suggestions, but they by no means have equal weight in the decision-making. In interdisciplinary teams, the team is jointly deciding on the plays or care plan—and that presents formidable challenges, especially for health care.

In health care, the physician is used to calling the plays, is trained to do so, expects to do so, and can be highly resistant to sharing that power and authority. The

nurse-practitioner, next in line in the pecking order, may also be resistant to the sharing of power. It appears that the lower one's professional status outside of the team context, the more one values teams and the more one embraces their legitimacy. A recent study compared the attitudes of internal medicine or family practice residents, nurse practice graduate students, and masters-level social work students toward working in interdisciplinary healthcare teams. It found that physicians were the least positively inclined toward the constructs of interdisciplinary collaboration, particularly in regard to the shared role in decision-making; social worker trainees were the most inclined.^{xxx} These attitudes are likely to become more ingrained throughout training and practice. No one likes to give up what they perceive as their turf.

Some of these differences in attitudes go beyond turf—they reflect differences in underlying disciplinary philosophy. For example, social work education stresses the importance of interprofessional collaborative approaches as central to service delivery. Physician training often stresses the contribution of the individual and is oriented toward "fixing" the physical problem rather than managing a complex set of physical and personal circumstances. Each discipline has its own view of the world and each team member may prefer to address all the needs of the patient alone without relying on any others.

In addition, different disciplines have different jargon, or use the same words to mean different things. In some respects, interdisciplinary teams can be likened to an interfaith marriage. While there are some values in common, there are some that differ or some that are more important in one faith than another. The word "Sabbath" may exist in both religions, but its observance requires different rituals and it may occur on differing days of the week in each of them. In an interdisciplinary team, there has to be agreement on which day to observe the Sabbath and how. In some cases two sets of rituals can be used, but in others, one person may have to give up his or her rituals.

Members of the team have their work exposed to others and to their criticism something quite difficult for most people to handle. And, while some individuals are oriented toward teamwork, others simply prefer to work autonomously or prefer to avoid conflict wherever possible. As noted earlier, the primary reason for physician turnover in PACE programs is dissatisfaction with the interdisciplinary requirement. Further, there are no simple answers to the ethical, psychosocial problems that teams may confront and divergent points of view are bound to be expressed and conflicts are bound to arise.^{xxxi} When the team is comprised of many individuals, the difficulties are multiplied significantly.

These procedural obstacles have proved formidable in practice. The head of a specialized managed care organization that treats disabled individuals indicated that although he values teams, they are very hard to do and he has never achieved teams larger than two in number. Furthermore, interdisciplinary teams require time—time to meet, time to learn to work together, time to hash out differences. Some experts in chronic care management claim that use of teams is "not worth the time and resources." This sentiment has even been expressed in part by a PACE administrator—she endorsed

limited use of interdisciplinary teams, but objected to the expense and opportunity cost of the daily meeting necessitated by Medicare PACE team care reassessment requirements.

Some barriers may be overcome through changes to clinical training. The John A. Hartford Foundation is sponsoring a Geriatric Interdisciplinary Team Training (GITT) initiative to create a cadre of well-trained professionals competent in gerontology and interdisciplinary skills. Even if health professionals are taught team skills and given a better understanding of the value of other disciplines, however, it is not clear that the training can override some basic personality characteristics that may interfere with effective team participation. It is not clear how many people can be good candidates for teamwork. The staff of PACE and hospice teams may represent self-selection. How many more people, if properly trained, would also function well in an interdisciplinary team is an open question.

Many of the barriers to teamwork are extremely high, and the use of interdisciplinary teams may not be practicable in any but a very narrow set of circumstances. In those narrow circumstances, based on the PACE and hospice experiences, their use may make a profound difference in the quality and ease of care and indeed may be worth the effort. But until there is a large cadre of trained interdisciplinary team members and until research demonstrates the efficacy of such teams, it may be the better strategy to begin with the incremental step of using a multidisciplinary-team approach. The care manager can call on multiple disciplines for input on care-planning, can arrange meetings, and can share information and the medical record on the Internet so that the clinicians, patients, and their family members can communicate back and forth through e-mail—a kind of "virtual team." By not forcing the development of consensus, or the sharing of power, a lot of conflict may be avoided while the benefits from participation of the different disciplines is preserved.

Eligibility

Teams may make the most sense for complex patients with multiple chronic conditions or functional limitations. Many analysts suggest similar criteria for care management in general. It is those beneficiaries who are most at risk from the fragmented health care system, who must navigate across multiple clinicians who may recommend conflicting courses of treatments. A researcher for a team project in Louisville explained that, "...it's not unusual for a family to have between 10 and 20 agencies involved at the same time—and those efforts are not coordinated or perhaps are even working at cross purposes."^{xxxiii}

Individuals—like our fictional example of Molly above—with changing medical conditions or with psychosocial issues are the most likely to be helped by an interdisciplinary team. For people whose chronic illnesses are unstable, the link between personal assistance or home care providers and medical providers functions as a remote monitoring system, providing information for updated assessment and care plan revisions. For those with limited or unreliable social supports and/or cognitive deficits in addition to regular medication management needs, a robust, collaborative link between

those monitoring their medical management and those charged with maintaining their family or community resources can be the principal support to keep them in their home and out of a hospital or a nursing home. As noted above, because PACE involves Medicaid as well as Medicare, the trigger for PACE eligibility is the state Medicaid nursing home requirements.

The Center for Medicare Advocacy recommended eligibility for Medicare caremanagement be based on the presence of five chronic conditions, or a combination of clinically complex chronic conditions amenable to coordinated care, or two or more chronic conditions and functional impairments which limit the ability of the individual to manage those chronic conditions.^{xxxiv}

In their paper on the clinical characteristics of Medicare beneficiaries, Berenson/Horvath posit that use of functional limitations to trigger eligibility for care management has drawbacks: for example, functional limitations are typically measures of need for personal assistance, services Medicare does not cover, and they require assessment by specialists (geriatricians) who are not widely available. Instead, they suggest that eligibility be based on a specified number of, or specific, chronic conditions. For purposes of discussion, Berenson and Horvath suggested a criterion of four or more serious chronic conditions. They believe that use of a clinical condition eligibility approach can more readily predict the numbers of eligible beneficiaries and programmatic costs than one based on measures of functional status.^{xxxv}

If team-based care-management is located in home health agency—a suggestion made earlier—eligibility could be derived from the data collected in the Outcome and Assessment Information Set (OASIS). Home health agencies are required to collect and report OASIS for each Medicare patient. OASIS contains a group of data elements that represent core items of a comprehensive assessment for an adult home care patient. The data form the basis for measuring patient outcomes and for determining Medicare payment. OASIS data items include sociodemographic, environmental, support system, health status, and functional status information.

Payment

Payment policies currently are a barrier to implementation of care management or teams in fee-for-service practice. Medicare and other insurers do not pay for many care coordination activities nor do they pay for team meetings. It is not surprising, then, that there are so few instances of outpatient teams outside of PACE and hospice. PACE is a capitated program and finds a way to pay for team activities within its capitated rate, suggesting the underlying cost-effectiveness of teams. In hospice, the team activities are covered in the per diem rate and are to some extent replacing active treatment. Outside of a hospice, though, providing team-based palliative care services to terminal patients is a financial challenge.

Several strategies have been suggested for paying for care coordination, and these approaches could certainly apply to teams. Care management can be billed service-by-service and a fee provided for each specific care management service, such as a team

meeting, a conference call with family members, development of a care plan, time on the Internet reviewing other team member entries, etc. Payment could be in the form of an administrative monthly care-management fee or incorporated into home health payment, adding amounts to certain payment categories to reflect the expectation of care-coordination activities for those patients.

The CMS Care-Coordination Demonstration described earlier requires voluntary monthly enrollment and uses a monthly administrative fee for each enrollee. The demonstration also permits consideration of alternative payment models in out years, such as a financial incentives program paying a percentage of any net Medicare savings in addition to the monthly administrative fee.

Medicaid uses three different methods to pay for Primary Care Case Management: a \$3–\$6 per member per month fee, a bonus for savings, or partial capitation for all primary care services.^{xxxvi} Medicaid Home and Community-Based Services waiver programs mostly rely on monthly fees and fee-for-service payment for specific services as well, although a number of states have used comprehensive capitation to providers, managed care companies, or non-profit intermediaries for some or all HCBS waiver participants.

The Center for Medicare Advocacy recommended a hybrid payment system in its Medicare care-management benefit proposal: initial and periodic multi-disciplinary assessments, paid on a fee-for-service basis, and coordination and on-going monitoring of services paid on a prospective payment basis.

DISCUSSION

The graying of America is finally upon us. Over 34 million Americans are age 65 or over, and in less than 30 years that number will double. Thanks to technological advances, many Medicare beneficiaries will be playing tennis or golf, continuing careers, and enjoying life in many other ways as well. But there is, and will continue to be, a share of these older adults and persons with disabilities who suffer from serious chronic illness, with complex medical and psychosocial needs, and their services remain uncoordinated, at best. Frail, vulnerable Medicare beneficiaries are in critical need of help organizing and managing all the elements of their care. With the failure of managed care to fill that need on a widespread basis, the health and policy worlds have turned to care management in fee-for-service Medicare.

Care management has nearly as many definitions as there are analysts. Some analysts envision care management as serving more of a gatekeeper function, managing care but at the same time saving money or at the least, not adding to program costs. However, the research on cost-savings from care management is equivocal at best.^{xxxvii} More importantly, the standards for success should focus on what care management ought to and can accomplish. "Cost-effectiveness"—the shibboleth of so many health services studies—should be measured in terms of how much demonstrated benefits will cost, not in terms of subtracting savings on hospital or other costs from the cost of services. Along these lines, the consensus of the Center for Medicare Advocacy was that

the primary, over-arching goal of such a benefit should be to improve care rather than to achieve savings.

It is certainly worth questioning why savings or even budget-neutrality should be necessary for an intervention that has the potential to improve quality of care and quality of life. For persons with multiple and serious chronic conditions, there is an overwhelming need for a care manager who serves as a beneficiary advocate, helping to provide assistance with coordinating care, navigating across providers and services, and assuring that needed care is received. Such a benefit can be incorporated into Medicare so that the program pays all of its costs or shares costs with other payers. As Alan Weil eloquently stated in his discussion of care integration, "Rather than claiming valueneutral "cost-effectiveness," we should claim that such a system is worth it....It is the right thing to do, and it is worth new investments and even some financial risk to make it happen."^{xxxviii}

The same standards should apply to the use of teams in care management. In the case of interdisciplinary teams, however, we simply do not know whether it is "worth it." Interdisciplinary teams are at the heart of two very successful programs managing the care of vulnerable beneficiaries. But transplanting teams to regular fee-for-service poses some formidable challenges. The case for the use of interdisciplinary teams in outpatient fee-for-service has not been made independently of PACE and hospice. The success of PACE and hospice offers a strong basis for research into their efficacy, but not an alternative to it. In addition, effective interdisciplinary teams are extremely difficult to pull off, and some clinicians find the experience not worth the effort. An incremental approach to teams appears warranted, starting first with research.

It is time to replace suggestive program successes and anecdotal negative experiences with rigorous quantitative and qualitative study. Research is needed to document the costs and benefits of adding interdisciplinary teams to care management; unlike previous research efforts, these must ensure that the team is the focus of the research. The lack of evidence for the benefits of interdisciplinary teams does not mean that teams are not efficacious, simply that we do not know. And the experience of PACE and hospice gives us good reasons to find out. Before policymakers will be ready to embrace or endorse the use of interdisciplinary teams in a care-management benefit, the challenge is to gather solid evidence demonstrating whether teams make a positive difference in patient outcomes, particularly in fee-for-service environments, and if so, under what conditions. Are there certain types of patients for whom teams are more effective than others? Do multidisciplinary teams, which are less costly and less difficult to run, achieve the same outcomes as interdisciplinary teams? Is one type of team better for some patients than others? Are there certain types of functions, such as patient assessment, for which teams are more effective than other functions? Before the use of teams in care management can be endorsed, it is important to be able to answer those questions. Given the budgetary concerns of federal policymakers, it is also important to determine whether and how much teams add to, or subtract from, the cost of care.

Should the outcome of the research indicate that interdisciplinary teams are indeed "worth it", then substantial changes to clinical training will be required, teaching future physicians and others to work together and to value each other's contributions. Because there is no existing infrastructure of outpatient interdisciplinary teams and few if any physician practices—the likely locus of care management for medically-driven complex cases—have enough seriously chronically ill patients to warrant hiring an interdisciplinary team, interdisciplinary care management teams could more easily be based in home health organizations or outpatient hospital departments which do serve enough seriously chronically ill patients to support a team structure. And, although feefor-service Medicare does not yet pay for care coordination or for many of the long-term care services that might be the focus of team activities, interdisciplinary team payment could be incorporated into the care management payment, paying separately for each team meeting in the case of fee-for-service payment, or as part of a per member per month administrative fee.

In the interim, until and if interdisciplinary teams are proven worthwhile, care management can begin to incorporate multidisciplinary teams into its activities. Good care managers already employ many of the elements inherent in multidisciplinary teams, eliciting input from the primary care physician, the pharmacist, the social worker, the home health nurse. That process should become more formalized and reimbursable. And input should be based on full information about the patient, either from the medical record, other data, or the care manager him or herself (a goal that implicates both privacy regulation and shifting to electronic medical recording).

CONCLUSION

Some policymakers are still agnostic on the potential benefits of care management; making that case for team-based care management is also a challenge yet to be met. Implementing a care-management benefit poses a host of challenges and making teams a part of that benefit poses an additional set of challenges all their own. Although the research case for interdisciplinary teams has not been made, the examples of PACE and hospice and the firm convictions of a substantial number of experts in geriatrics care justify a substantial investment in the research necessary to answer the question about its costs and benefits. In the interim, implementing care management in a way that incorporates the ideals of multidisciplinary teams—eliciting and valuing input from the various disciplines involved in caring for frail individuals—is a good beginning to improving care for vulnerable persons.

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