

CHAPTER

2

**Care coordination in
fee-for-service Medicare**

Care coordination in fee-for-service Medicare

Chapter summary

Care coordination has the potential to improve value in the Medicare program. Care coordination can connote a variety of activities for patients. But in this chapter, the Commission focuses on integrating the use of nurse care managers and information technology into the clinical care of patients with high-cost, complex needs. These services may improve patients' understanding of their conditions and compliance with medical advice and, in turn, reduce the use of high-cost settings such as emergency rooms and inpatient care. Ideally, care coordination will also improve communication among providers, eliminating redundancy and improving quality.

Fee-for-service payment mechanisms are barriers to coordination among providers and to care management for beneficiaries with complex care needs. Payment is directed to each provider separately and emphasizes treatment for acute conditions and face-to-face care.

In this chapter, we explore strategies for Medicare to coordinate care for complex beneficiaries. Commission staff interviewed a wide variety

In this chapter

- Why is care coordination needed?
- Care coordination tools for patients with complex needs
- Is there evidence that care coordination improves quality or saves costs?
- Models of care coordination in the Medicare FFS program

of experts and organizations involved in care coordination (35 interviews in total) and analyzed Medicare claims for beneficiaries with a subset of chronic conditions. Interview findings include:

- Many different tools are used to coordinate care. The two functions considered essential are: 1) a care manager (usually a nurse) to assist the patient in self-management and monitor patient progress, and 2) an information system to identify eligible patients, store and retrieve patient information, and share information with those who need it.
- Interviewees believe programs are more effective when the beneficiary's primary physician is involved.
- Care coordination programs are often required to show savings as a condition of payment. Therefore, to be cost effective, most programs focus on complex beneficiaries (e.g., those with multiple chronic conditions, such as congestive heart failure or diabetes, or users of many health care services).
- Care coordination services appear to improve quality. Published research on cost savings is less clear.

To stimulate discussion, we outline two illustrative models for complex patients in the fee-for-service program. Medicare could contract with providers in large or small groups that are capable of integrating the information technology (IT) and nurse care manager infrastructure into patient clinical care. In the other model, CMS would contract with stand-alone care management organizations that would work with individual physicians. The care management organization would have the IT and care manager capacity.

In either of these models, payment for care coordination services would be contingent on negotiated levels of performance on cost savings and quality improvements. Given that Medicare faces long-term sustainability problems and needs to learn more about the most cost-effective interventions, the entities furnishing the care managers and information systems should

initially produce some savings as a condition of payment. Demonstrating continued savings may not be necessary or feasible once care coordination strategies are broadly used.

Additionally, to encourage individual physicians to work with care coordination programs, CMS could pay a monthly fee to a beneficiary's primary physician or the group for time spent coordinating with the program. This may be less necessary if the physician is already part of a group practice with a care coordination program. If these two models coexisted, however, providing the fee only to nongroup practitioners could disadvantage physicians who practice in groups. As with other fee schedule services, these expenditures would be accommodated by re-allocating dollars among all services in the fee schedule. In either model, patients would volunteer to see a specific physician for their care related to the complex condition that qualifies them to receive care coordination.

These models do not represent the Commission's view of the only way care coordination might work in Medicare. Other strategies, such as pay for performance, complement this model by focusing on improving care. Also, adjusting Medicare's compensation to physicians for the longer time spent caring for patients with complex issues may be warranted if the current fees do not compensate for this extra time. ■

Over the last two years the Commission has explored multiple strategies to provide incentives for high-quality, low-cost care, and thus improve value in the Medicare program.¹ However, even if individual providers are efficient, the care for the beneficiary may still be less than optimal if they do not communicate well with other providers or monitor patient progress over time. To address this problem, we have been exploring ways to introduce care coordination by creating incentives for providers to share clinical information with other providers, monitor patient status between visits, and fully communicate with patients about how to take care of their disease.

While all patients could benefit from better coordination, the patients who most need the services described in this chapter are those with multiple chronic conditions and other complex needs. These patients represent a significant proportion of Medicare spending, yet many do not receive necessary care. More than 75 percent of high-cost beneficiaries were diagnosed with one or more of seven major chronic conditions in 2001 (CBO 2005). Beneficiaries with chronic conditions receive recommended care only 56 percent of the time and many experience potentially avoidable admissions (McGlynn et al. 2003, MedPAC 2004).

Other types of care coordination include improving transitions among providers, assisting all patients in understanding medical advice, and knowing when medical services are necessary. Providing these services to all types of patients is not directly addressed in this chapter.

The payment mechanisms in the fee-for-service (FFS) program are barriers to coordination among providers and to care management for beneficiaries with complex care needs. Payment goes to each provider separately and emphasizes treatment for acute conditions and face-to-face care.

These payment incentives reflect health care's historic orientation toward responding to acute illness and injury. In the past, the focus was on defining the problem and initiating short-term treatment, with the patient as a passive participant (Wagner et al. 2001). Because the episode usually resolved itself within weeks or days, little emphasis was placed on patient self-management or tracking. The Institute of Medicine's (2001) *Crossing the Quality Chasm* report described this underlying system failure, noting that the poorly organized delivery system, including the constraints of modern information

technology, was not capable of meeting the needs of the growing numbers of patients with chronic disease.

Payment methods reinforce this historical orientation. In a fee-for-service system, individual providers are paid based on what they do in a visit or in a setting without regard to the quality of those services, much less on coordinating the patient's care. Many of the services required by individuals with chronic conditions or other complex needs, such as ongoing monitoring and education for self-management, are not performed within the typical face-to-face office visit and often not by physicians. As two researchers put it, ensuring that beneficiaries receive these services within the context of our current payment and delivery system is like trying to fit a round peg into a square hole (Wolff and Boulton 2005).

The Congress acknowledged this problem by initiating a pilot program to address care coordination through the voluntary Chronic Care Improvement Program (now termed Medicare Health Support (MHS)). CMS launched eight pilot sites beginning in the summer of 2005 and is also testing other models. In June 2004, the Commission discussed the challenges of this new program, particularly applying a private sector disease management model to the Medicare population (MedPAC 2004). At this time, CMS has not yet evaluated the effectiveness of its various care coordination models.

We conducted interviews with physician organizations, other provider-based practices, health plans, various CMS demonstration sites, researchers, and quality experts to learn more about the key attributes of care coordination services. Those we interviewed agreed that care managers and information systems are critical for effective care coordination and that physician involvement improves the effectiveness of these programs. We outline two illustrative models for implementing care coordination in the Medicare program to stimulate further discussion on the topic. We also discuss how changes to the fee schedule may be warranted to increase payment for physicians caring for complex patients.

Why is care coordination needed?

Evidence continues to mount that beneficiaries with chronic conditions do not receive recommended care and may have hospitalizations that could have been avoided with better primary care. Researchers attribute

**TABLE
2-1**

Beneficiaries with select chronic conditions see more physicians

Percent of beneficiaries with claims billed by:

Beneficiaries	1 physician	2-5 physicians	6-9 physicians	10+ physicians
All	16%	51%	21%	12%
Without CAD, CHF, or diabetes	20	56	18	6
With CAD, CHF, or diabetes:	7	41	27	26
Three conditions	1	14	23	61
Two conditions	3	28	29	40
One condition	8	47	27	18

Note: CAD (coronary artery disease), CHF (congestive heart failure). Rows may not sum to 100 percent due to rounding. This table relies on Unique Physician Identification Numbers (UPINs) to identify unique physicians or practitioners. Our count of unique physicians may be affected by some physicians' usage of more than one UPIN.

Source: MedPAC analysis of a 5 percent sample of 2003 inpatient, outpatient, and physician/supplier file claims.

this problem to poor monitoring of treatment—especially between visits—and the lack of good communication among providers. Physician offices, on their own, struggle to find time to provide this type of care and few practices have invested in the necessary tools—namely clinical information technology (IT) systems and nurse manager staff.

In a 2003 report, researchers found that patients with chronic conditions received recommended care only 56 percent of the time (McGlynn et al. 2003). MedPAC analysis of claims-based ambulatory measures (primarily for chronic conditions) found that only two-thirds of beneficiaries received necessary care for 20 out of 32 indicators in 2004. Even fewer received necessary care for the other indicators. Our analysis of potentially avoidable hospitalizations found that congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), hypertension, and three forms of complications due to uncontrolled diabetes are among the top 12 reasons for hospitalization in the Medicare program. CHF is the most prevalent reason for a potentially avoidable admission and has high rates of readmissions (Rich et al. 1995).

Partly because of these hospitalizations, beneficiaries with multiple chronic conditions are responsible for a disproportionate share of Medicare spending. A recent analysis found that more than 75 percent of high-cost beneficiaries were diagnosed with one or more of seven major chronic conditions in 2001 (CBO 2005). Five

percent of Medicare beneficiaries account for nearly half of total FFS program spending (MedPAC 2004). A recent Commission analysis found that 70 percent of inpatient spending was for beneficiaries with three chronic conditions—coronary artery disease (CAD), CHF, and diabetes.

All beneficiaries, not just those with chronic conditions, suffer from the lack of coordination across settings. A recent study found that 34 percent of patients, regardless of payer, reported medical mistakes, medication errors, or lab errors. That number rose to 48 percent for those with four or more doctors involved in their care (Schoen et al. 2005). Thirty-three percent of survey respondents reported poor coordination at discharge. The respondents reported that they did not receive clear instructions about symptoms and were unclear whom to contact for questions. Many also said that the hospital made no arrangements for follow-up visits. Another study found that 19 percent of patients experienced an adverse event within three weeks of hospital discharge (Forster et al. 2003). Sixty-six percent of the adverse events were drug-related.

The lack of coordination could also be due to beneficiaries seeing multiple physicians over the course of a year, which would be particularly true for patients with chronic conditions. Our analysis shows that an average Medicare beneficiary sees five physicians per year. The more conditions a beneficiary has, the more physicians

he or she tends to see (Table 2-1). Sixty-one percent of beneficiaries with all three of the conditions we studied (CAD, CHF, and diabetes) saw 10 or more physicians in a single year. One of the reasons for this level of physician involvement is that multiple physicians care for a patient during a hospital stay. In a related analysis, we found that the percentage of beneficiaries seeing fewer than five physicians per year was 88 percent when no hospitalization occurred compared with 35 percent when a hospitalization did occur.²

Another analysis (not shown) shows that despite the number of physicians involved, one physician accounts for much of a beneficiary's care. Forty-seven percent of those with chronic conditions see one physician for 50 percent or more of their care, as measured by dollars. An even larger proportion of beneficiaries (65 percent) with none of the above three conditions see one physician for 50 percent or more of their care, as measured by dollars.

However, research suggests that physicians alone can only do so much to improve care coordination, especially for patients with chronic illness. Individual physicians may not have the time or be well suited to provide all the necessary evaluation, education, and coordination that benefit beneficiaries with multiple chronic conditions (Grumbach and Bodenheimer 2002, Rothman and Wagner 2003). One study found physicians would have to spend a full seven hours of their day just to ensure that all of their patients received recommended preventive services (Yarnall et al. 2003). Another study found that older patients with select conditions that require time-consuming processes, such as history taking and counseling, are at risk for worse quality of care (Min et al. 2005). Further, physicians are not trained to educate patients about caring for their conditions or to set up systems for monitoring between visits.

Physicians' use of basic care management tools is low, even in group practices where building the infrastructure, including the use of clinical IT, for care coordination may be more feasible. In a study of physician groups larger than 20, physicians scored, on average, 5.1 out of 16 possible points when asked if they used one or more of five key care management processes. The five processes were case management, physician feedback, disease registry, clinical practice guidelines, and self-management skills education (Casalino et al. 2003).

Care coordination tools for patients with complex needs

Experts agree care coordination is most needed and effective for beneficiaries with complex cases, often with multiple chronic conditions. Care coordination programs for those with complex needs use a variety of tools. Many are borrowed from disease management or case management but are applied more broadly across conditions or for a longer time frame.³ The Commission also found that the programs discussed by our interviewees shared many of the six essential elements (noted below) outlined in the well-known chronic care model (CCM). We identified through our interviews two tools that are central to all programs: care managers and information technology.

Care coordination services are described as the “glue” that holds the beneficiaries' care together. Providing this glue may improve quality of care and reduce costs. Because these services are often delivered when patients move from one setting to another, such as from the hospital to home, the same services designed for patients with complex needs may improve transitions for all patients (see text box on page 38).

In the literature on care coordination, the most cited model for chronic conditions is the CCM. In this model, programs must 1) have the support of the purchasers or insurers, 2) maximize other community resources to the extent possible, 3) support patient self-management, 4) support clinical decisions, 5) clarify delivery system roles for physicians and nonphysician team members, and 6) rely on clinical information systems to track patient progress and make information available to those involved in patient care (Bodenheimer et al. 2002).

To understand more about models of care coordination, the Commission interviewed physicians and their representatives, health plans that provide care coordination services to members, researchers, and quality experts. Because CMS is experimenting with a variety of care coordination models, we also included many of its project participants and staff in our interviews. (The text box on page 39 provides a description of the features of three relevant examples of CMS care coordination models.) Our interviewees described programs that encompassed many of the goals described in the CCM, but our primary conclusion was that two tools, in addition to physicians'

Improving care transitions

People with complex care needs, often older patients, are particularly vulnerable to fragmented health care (Coleman 2003).

Potential problems include a lack of understanding of self-management techniques or which symptoms to look for, confusing medication instructions, and inadequate preparation (Forster 2003). These problems often lead to increased hospitalization and emergency department visits.

Often the patient and the family caregiver are the only connection between the sites of care. Therefore, one approach to improving care transitions is to focus directly on encouraging patients and their caregivers to be active advocates for themselves. Researchers at the University of Colorado found that patients who were educated about medication self-management and “red-flag” warning symptoms and had a patient-centered record and primary and specialist follow-up were less likely than patients without such care to have a subsequent emergency department visit or rehospitalization for their condition (Coleman et al. 2005). This research also found that scores were higher

for patients in systems with a high degree of integration between hospitals and physicians.

These researchers have created a set of Care Transitions Measures which could be used to assess whether patient care involves these processes. The Patients’ Evaluation of Performance in California survey, designed by the California HealthCare Foundation for its pay-for-performance initiative, also includes several questions pertaining to transitions.

Other strategies involve developing and using information-sharing tools among patients, families, and providers. One example of such a tool is the continuity-of-care record. A group of physician organizations, along with experts in standard development, has defined the most relevant and timely core health information that should pass from one provider to another. Supporters say it can be created, read, and interpreted by various electronic health records, and printed in PDF or Microsoft Word documents. Another tool provides patients with a personal health record, which they use with all of their providers. ■

clinical management, were essential for effectively managing complex cases.

- **Information systems**—Care coordination programs use information systems to identify eligible beneficiaries. Care managers use the systems to track patients’ care and provide caregivers with information about the patient.
- **Care managers**—A care manager, usually a nurse, checks on and responds to questions from patients and their families at home and in interactions with multiple providers.

These two tools—information systems and care managers—were described as direct support for the patients. This support for the patient was most effective when the patient’s physician provided clinical information to the program and responded to the patient’s needs identified by the program, such as changing a medication order.

How are information systems used? Our interviewees described a wide variety of types and functions of information systems.⁴ Information systems enable care coordination programs to use predictive modeling programs to identify patients with the highest need for care coordination. Information systems are also used to track the patient’s condition; the care manager can pull up the patient’s history and risk-assessment notes to document the patient’s status over time. Sometimes the information system takes the form of an electronic health record, but patient information can also be stored and made accessible with web-based registries.

Care managers use the information in the system (including some built-in decision support, such as protocols regarding weight fluctuation) to determine whether the patient’s condition is stabilizing or improving, and whether they may need to contact a physician. If the patient is improving, the care manager may call the patient once a month instead of once every few days.

Illustrative CMS care coordination projects

Medicare Health Support pilot (Chronic Care Improvement Program in fee-for-service Medicare)

The Congress authorized this pilot in 2003 to test the application of disease management and other relevant models to the Medicare population. CMS has cooperative agreements with eight organizations to provide support for beneficiaries with congestive heart failure or diabetes among their chronic conditions. These Medicare Health Support organizations (MHSOs) are working with physicians and beneficiaries to improve the health of the targeted population (20,000 per site) and reduce Medicare expenditures. Quality and cost improvements are anticipated from preventing debilitating complications that often result in hospitalizations and emergency room visits.

CMS pays the MHSOs a fee up front. However, the MHSOs will need to pay back part or all of the fees if they fail to reach the target threshold of 5 percent net savings (Medicare claims cost and MHSO fee) and realize quality improvement goals as compared to a comparison group. As of January 2006, 110,000 beneficiaries had agreed to participate in the program in 8 sites. Congress authorized the Secretary of Health and Human Services to expand successful programs or program components.

Physician group practice

The Congress mandated this demonstration in 2000 to encourage coordination of care and investment in administrative structures and processes, and to reward physicians for improving health outcomes. In January 2005, CMS announced it had chosen 10 physician

multispecialty group practices (each with a minimum of 200 physicians) to begin the demonstration in April 2005. It will run for three years. This demonstration tests whether sharing savings that result from more effective care lowers program expenditures or improves quality. CMS assigns beneficiaries to the group practice based on how often they use physicians in the practice. If actual annual Part A and B expenditures for the assigned population are less than the expected expenditures and certain quality targets are met, the physician group practice can share a portion of the Medicare savings. CMS still pays individual physicians in the group using fee-for-service payment.

Care management for high-cost beneficiaries

CMS developed this demonstration to test models of care management in a Medicare fee-for-service population for beneficiaries who are both high cost and high risk. These beneficiaries will receive clinical support beyond that typically provided in traditional fee-for-service settings to manage their conditions. Eligible organizations include physician groups, hospitals, or integrated delivery systems. CMS pays the organization a care management fee, but the fee is contingent on certain targeted levels of savings. CMS hopes to test such care coordination strategies as intensive case management, increased provider availability, structured chronic care programs, restructured physician practices, and expanded flexibility in care settings to address needs specific to this population. The organizations must assume financial risk for their fees if they fail to meet savings targets. If savings go beyond the targeted level, the organization may also be eligible to share in them. ■

Care managers are often nurses, but some programs use specially trained educators or physicians along with nurse case managers.⁵ After the beneficiary enters the program, the care manager (either by phone or in person):

- Does an initial assessment. The care manager, often along with other practitioners, develops a plan for tracking the patient's status. Depending on the needs

of the patient, this could involve a once-a-week phone call or more intensive services, such as face-to-face visits or once-a-day calls.

- Helps the patient understand how to take medications, what symptoms to look for, and how to best manage his or her conditions (e.g., proper diet and exercise).

- Teaches the patient how to interact with the health system effectively (e.g., what questions to ask his or her physician).
- Communicates with the patient’s providers regarding any problems the patient may have.
- Adjusts the care management plan, as necessary.

The care manager checks on the patient at regular intervals and is also available by phone to the patient or the patient’s family. In some cases, care managers make appointments and even provide or pay for transportation.

Role of physician offices

All interviewees maintained that care coordination is most effective when patients’ physicians are part of the care coordination team. Patients with multiple chronic conditions, in particular, require continuous clinical coordination to manage comorbidities effectively. While physician involvement is critical for clinical management, nonphysician practitioners, such as nurses and social workers, conduct many of the care management activities.

Those we interviewed described the following key roles for physician offices:

- provide referral and clinical information, including initial diagnoses, to the care management program;
- develop patient’s clinical care plan;
- respond to feedback on the patient from the care management program (e.g., revising clinical care plan);
- write orders and administer necessary clinical services; and
- provide clinical information to the patient’s database on an ongoing basis.

The care management program is administered in-house in practices where physician offices have enough patients and staff to justify the cost of performing care coordination activities.

However, smaller physician offices may not have enough patients at high complexity levels to warrant hiring care managers or developing patient education programs. Several reported that in these cases physician offices may provide some limited management through staff nurses, but the offices may need to team up with external care

management programs to provide the full set of care coordination services.

Several representatives of the CMS demonstration sites we interviewed stated that because physician involvement was critical, they intended to share a portion of their care management fee with physician offices. One interviewee stated that initially the fee would be designed as payment for professional services. However, over time the organization wanted to tie any payment to physicians to performance on quality and resource use measures. Several interviewees noted that because the goals of care coordination and quality improvement sometimes overlap, provider-level pay-for-performance incentives could encourage providers to initiate or collaborate with care management programs.

Role of the beneficiary

Although care management programs and the patient’s physician are critical for care coordination programs to work, the central actor is still the beneficiary. These programs will not be effective without engaged beneficiaries.

Our interviewees said that two types of engagement were important. First, beneficiaries needed to agree to participate in the care coordination program. In the Medicare Health Support pilot, CMS provides the organization a list of eligible beneficiaries, including contact information, and the organization must contact the beneficiary.⁶ This information is also available to physician groups in the physician group practice (PGP) demonstration, but the practice can identify eligible patients as well.

Second, and most important, once beneficiaries are in the care coordination program, they are responsible for adhering to their care plan and properly monitoring their condition. Beneficiaries must be willing to accept phone calls or visits and act on the advice of the care manager or physician to weigh themselves, check blood pressures, take their medications, and make difficult lifestyle changes to improve their health status.

Most programs found beneficiaries were grateful that someone was paying attention and appreciated the phone calls. Interviewees responded positively that beneficiaries used the various electronic monitoring tools, and that care managers prompted noncompliant beneficiaries to do so.

We do not know yet whether beneficiaries in the variety of programs Medicare is testing will comply with the advice from the care coordinators or engage in healthier behaviors.

How are members with care coordination needs identified and who generally qualifies for those services?

Care coordination programs use administrative data and referrals from providers to identify beneficiaries most able to benefit from their services. Because most of these programs are expected to produce cost savings, targeting the right services to the right group of beneficiaries is essential. Who is the right group? In these programs, the right groups are patients whose future high expenditures can be prevented, including beneficiaries with multiple comorbidities or those taking multiple medications and using many services.

No two programs target exactly the same beneficiaries; which beneficiaries receive care depends on the type of organization and the type of program. If hospitals are involved, the program may target those at risk for readmissions. Without a hospital, the program may be more broadly targeted at patients with certain diagnoses.

Although the complexity of beneficiaries' conditions indicates a need for these services, it may be difficult to prevent higher costs if patients are very sick. Further, high users of services today may not be high users in the future. Commission research has found that while many high-cost beneficiaries in one year do have high costs in subsequent years, many do not (MedPAC 2004). We found that only 38 percent of beneficiaries ranked among the top 5 percent by FFS program spending in the base year of 1996 were among the top 5 percent the next year.⁷

Care coordination programs target patients through claims analysis—including lab and prescription data—or through referrals from physicians, hospitals, or post-acute settings. As might be expected, when the organization sponsoring the program is provider-based, it can rely more heavily on referrals from physicians or hospitals than those that are not. The ability to analyze claims in a timely fashion is important for all types of programs to identify eligible beneficiaries and shift the level of interventions over time.

Patients with CHF are often targeted by care coordination programs. CHF affects outcomes and costs and is a condition for which good ambulatory care, including better adherence to medication regimes, could prevent

hospitalizations. One interviewee also noted that hospitals have difficulty covering the costs for some patients with CHF, thus hospitals may want to reduce readmissions for these types of patients. Our analysis finds that Medicare beneficiaries with CHF (whether it is the primary diagnosis of the hospitalization or not) have high rates of readmission: 40 percent of all types of admissions are readmissions for any cause within 90 days.

Preventing readmissions for those with a variety of chronic conditions may be a useful way to target care coordination services. Our analysis also shows that rates of readmission within 90 days for any cause in beneficiaries with diabetes (34 percent), CAD (32 percent), and COPD (36 percent) are a relatively high proportion of all of their admissions.⁸

Many programs expand their focus beyond the presence of chronic conditions. Interviewees noted that age, multiple admissions, trips to the emergency department, or seeing numerous physicians were often signs of a need for care coordination. Risk factors also help determine eligibility, such as hypertension, high cholesterol levels, and symptoms such as dementia, depression, or low levels of functioning. The Program of All-Inclusive Care for the Elderly (PACE), which provides many types of care coordination services, targets its services to beneficiaries who might otherwise be in nursing homes.

Is there evidence that care coordination improves quality or saves costs?

Evidence shows that the various types of care coordination programs described in the previous section improve quality, particularly as measured by the provision of necessary care. Evidence on cost savings is less clear.

Quality improvement

Our interviewees find that care coordination services can improve beneficiaries' care. They found such programs reduced hospitalizations, including readmissions and emergency department use, and improved adherence to evidence-based guidelines. This was particularly true for beneficiaries with diabetes or CHF. Published research on the impact of care coordination corroborates the experience of our interviewees. Self-management programs for older adults have been found to improve care for hypertension and diabetes (Chodosh et al. 2005). Other interventions have been effective for coronary artery

disease, diabetes, heart failure, and asthma (Fireman et al. 2004).

In addition to improving performance on measures of whether patients received necessary care, several studies documented the impact of care coordination on outcomes, such as readmissions. Researchers found rates of readmissions fell when older patients with chronic illness were given a personal health record and a transition coach to help them manage their medications and symptoms (Coleman et al. 2004). Patients in the intervention group were approximately half as likely as those in the control group to return to the hospital at 30, 90, or 180 days.

Another study found reduced readmissions for at-risk elders when a care manager (an advanced practice nurse) managed the discharge process in the hospital and followed the patient into the next care setting. This study found readmissions were reduced by 45 percent (37.1 percent for the control group vs. 20 percent for the intervention group) at six months (Naylor et al. 1999).

Cost savings

Evidence on cost savings is less clear and savings may depend on how well the target population is chosen. When cost savings are shown, they are often limited to a specific type of patient, the intervention used, or the time frame for the intervention. Our interviewees said that the savings potential depended on the balance between targeting the right beneficiaries and finding the most effective interventions. Patients with CHF were seen as the most promising in terms of the opportunity for short-term cost savings and quality improvement. However, longer term savings could come from improved management of conditions such as diabetes because poor glucose control in diabetics can lead to worse cardiovascular health in the longer term. Interviewees pointed out that savings from better care coordination might come from both the diagnoses that led to patients' enrollment and from other conditions these patients often have.

In a review of the literature on disease management (services similar to care coordination), the Congressional Budget Office (CBO) concluded more evidence was needed to prove cost savings due to a lack of standardization of analysis and faulty research design (CBO 2004). Evaluations often did not include the cost of the interventions in their calculations, did not address the fact that many patients would have had decreased costs without the intervention, and were often based on one specific condition or intervention.

Another review of the literature found that research on programs emphasizing self-care shows promise for cost savings, especially for patients with CHF (Goetzel et al. 2005). Four randomized controlled trial studies that calculated net savings for CHF found that, on average, programs saved \$3.66 for every dollar spent. While significant, three of the studies were based on interventions performed when patients were at risk for readmissions, which could limit their generalizability. Further, the range of returns on investment across the studies was broad, from a loss of \$2.77 for every dollar spent to a gain of \$14.18 for every dollar spent.

Goetzel and colleagues (2005) found the evidence on savings to be less clear when programs were directed at asthma, diabetes, and depression. Similar to the CBO report, these researchers also discuss the difficulty of trying to assess the cost-savings of these types of programs.

A study on the use of care coordination tools at discharge from the hospital found that preventing readmissions also saved Medicare dollars. Six months after discharge, total Medicare payments for the intervention group of 186 patients were \$600,000 less (including the cost of the intervention) than those for the control group of 177 (Naylor et al. 1999).

The time frame used for these analyses is critical. Often the savings are documented in a relatively short period. Greater savings might be realized if measured over a longer time frame or vice versa. Obtaining a return on investment for controlling diabetes is said to take longer than for other conditions, perhaps five years. Researchers looking at the lifetime burden of chronic disease among the elderly concluded that beneficiaries with chronic conditions cost \$1,000 to \$2,000 more per year than those without them, but may cost less over their life time because they die sooner (Joyce et al. 2005). If care coordination programs work, annual spending may decrease, but beneficiaries may live longer with a higher quality of life. This would be a positive outcome for Medicare beneficiaries, but over the beneficiaries' lives the Medicare program may not spend less than it otherwise would have.

Some analysts question whether Medicare should require care coordination services to show savings. If these services are needed, effective, and improve the value beneficiaries receive, why should they be held to a different standard than other medical services? An analysis

**TABLE
2-2****Current strategies to coordinate care in Medicare**

	MA plans	PGP demonstration	MHS pilot	Physician P4P
Accountable entity	Health plan	Provider system	Care management organization	Physician office
Payment method	Capitation	Shared savings	At-risk care management fee	Bonus payments

Note: MA (Medicare Advantage), PGP (physician group practice), MHS (Medicare Health Support), P4P (pay for performance).

Source: MedPAC analysis.

of one care coordination program in northern California concluded that a program for those with chronic illness “must rest on its effectiveness and value regardless of whether it saves money” (Fireman et al. 2004). This may argue for assessing programs on the basis of whether they provide the interventions known to be effective or achieve certain quality improvements rather than on their cost savings. Further, if care coordination services become widespread, over time it will become increasingly difficult to demonstrate savings because of a lack of a comparison group.

Models of care coordination in the Medicare FFS program

The strongest incentives in the Medicare program to coordinate care are through the Medicare Advantage (MA) program. Because CMS pays MA plans a capitated amount for all of the enrollees’ care, the plan has an incentive to ensure that beneficiaries with complex needs are well managed across settings and over time. The Commission does not know how effectively MA plans coordinate care for their complex patients, but at least the payment mechanisms provide the appropriate incentives.

Care coordination is more difficult to do in the FFS program because it requires managing patients across settings and over time, neither of which is supported by current payment methods or organizational structures. Further, because patients have the freedom to go to any physician or other provider, it is more difficult to identify the practitioner most responsible for the patient’s care and the patient may choose to see multiple providers. The challenge is to find ways to create incentives in the FFS system to better coordinate care.

The models currently used in the private sector and those CMS is testing for the FFS program are reimbursed very differently than the typical fee-for-service transaction. They also require different organizational structures capable of operating across settings and interacting with the patient at home.

Table 2-2 shows the variety of approaches currently in use or being contemplated for care coordination in the Medicare program. The continuum moves from the plan-level incentives where the plan is at risk for the costs of all services (medical care and care management) to pay-for-performance incentives for physician offices to provide appropriate care to all patients. In between these two approaches are the two types of models from which we draw for our discussion of potential new approaches.

In the MA program, the plan is at risk for any costs of care that go beyond the capitated payment, but can attract beneficiaries with more generous benefits if it is able to spend less on beneficiary services than that amount. This payment can act as an incentive for MA plans to better coordinate care. MA plans, similar to health plans serving commercial clients, can hire care management services to interact directly with patients and physicians or integrate care management into any provider networks. CMS also provides incentives for care coordination through capitated payments to PACE program contractors and special needs plans. We discuss these plans in more detail in Chapter 9.

While not yet implemented, physician-level pay for performance also provides an opportunity to improve care for those with chronic conditions. In discussing measures of pay-for-performance incentives, the Commission recommended indicators of chronic care clinical management, including physicians’ ability to identify patients with chronic conditions, monitor their progress, and provide self-management education. However, these

**TABLE
2-3**

Components of two illustrative care coordination models

	Model one: Provider group	Model two: Care management organization plus physician office
Accountable entity	Group practice or integrated delivery network provides care coordination and clinical care.	External care management organization provides care coordination and physician office provides referral and clinical care.
Payment method	Shared savings or at-risk fee to group. A potential additional monthly fee for physician interaction with program.	Shared savings or at-risk fee to care management organization. Monthly fees to designated physicians of enrolled beneficiaries.
Enrollment and eligibility	CMS identifies eligible beneficiaries in region. Provider group targets services. Patients designate a physician as primary.	CMS identifies eligible beneficiaries in region. Care management organization targets services. Patients designate a physician as primary.
Accountability	Provider group accountable for savings targets (expected vs. actual Parts A&B spending) and quality measures (process and outcomes). If a physician fee is paid, group accountable for documentation.	Care management organization accountable for savings targets (expected vs. actual Parts A&B spending) and quality measures. Physicians accountable for documentation and quality measures.

pay-for-performance incentives do not ensure that a care manager is available to the patient, nor that patient care is tracked across settings.

The physician group practice demonstration and the Medicare Health Support pilot are currently being evaluated by CMS for use in FFS Medicare and are briefly

described in the text box on page 39. We draw heavily from these two models in our thinking about models for care coordination in the FFS program. However, further evaluation is necessary to identify which aspects of the current CMS initiatives are most effective. We present these models not as Commission recommendations, but to illustrate key attributes of an effective care coordination program and stimulate further discussion on the topic.

New approaches to care coordination in FFS Medicare: Two illustrative models

We present two models for delivering care coordination. In the first model, the patient’s primary physician is part of a group of providers with an internal care management program. In the second model, the patient’s primary physician is in a solo practice or small office with limited resources for care management, and the physician’s office works with an external organization to deliver the care management services between office visits (Table 2-3).

These programs would target high complexity patients because these patients are the ones for whom improved outcomes and lower costs are most likely. Any program to coordinate care for patients with complex illness will need information systems to identify and track patients and provide decision support and a care manager (usually a nurse) to help the patients navigate the health system and manage their own care. These care management functions will need to complement and build on the care provided by the patient’s physician. This may be best achieved by integrating the care management functions of information technology and a care manager directly into a physician practice. However, not all practices have a sufficient number of complex patients or the resources to provide the necessary care management services.

For reasons we describe below, we assume that the care coordination entities, whether provider groups or external care management organizations, would have some portion of their payment at risk for the outcomes they achieved, both in cost savings and quality improvement. Further, CMS may also pay a fee for individual physician time to interact with the care management program to encourage physicians to refer beneficiaries and to cooperate with the beneficiary’s program.

In the following sections, we discuss the accountable entities, payment methods, enrollment and eligibility, and accountability mechanisms for the two models.

Accountable entity

The accountable entity in the two models is perhaps the largest difference between them. The financial incentives, accountability mechanisms, and determination of beneficiary eligibility are all similar. These models are not mutually exclusive. They could coexist and provide different options for care coordination that would recognize that beneficiaries receive services from different types of delivery systems.

Provider group In the first model, the accountable entity would be a provider group and Medicare would contract with groups of providers, either group practices or integrated systems that also include hospitals and other types of providers, to furnish care coordination services. This would target payments for care coordination to organizations capable of investing in the IT and nurse care manager infrastructure.

It is unclear how large a provider organization should be to effectively deliver care coordination services or to take on some risk for cost savings as a condition of payment. While a single physician practice may not be able to deliver all of the services, a small geriatric physician practice may have a sufficient population of complex Medicare beneficiaries to find it worthwhile to invest in the necessary information systems and hire nurse care managers. The PGP demonstration limits participation to groups of 200 or more physicians, but other CMS demonstrations allow much smaller provider groups to participate. One of the CMS demonstration sites is run by an independent practice association (IPA) that coordinates across its member physicians, so IPAs could also potentially qualify as a provider group under this model.

Hospital-based systems choosing to be a part of the program may also vary in size. One of the PGP sites is centered around a single hospital with its affiliated physicians, while another includes multiple hospitals and physician groups. The program would be voluntary, so a physician practice or hospital-based organization would need to determine whether it was capable of delivering the necessary services.

In the provider group model, care coordination programs would be integrated directly into the provider's clinical care, either in a physician office practice, hospital, or home health practice. The nurse care manager might share office space with physicians. As such, beneficiaries may be more accepting of the program and involved in their own care management than if the coordination

were performed by an external entity. If a hospital is in the network, these programs could be initiated at discharge and encourage more seamless transitions for the beneficiary and better coordination between the hospital and physicians.

The type of group a physician is in may also guide decisions regarding provider participation in the program. A study of physician practices in California found that the more integrated the practice, the more likely it was to use disease management techniques. Sixty-seven percent of physicians formally affiliated with Permanente groups reported referring patients to disease management programs compared to 39 percent for those contracting through independent practice associations, and 17 percent among physicians in practices with 1 to 10 independent physicians (Rittenhouse et al. 2004).

Care management organization plus physician

office Under the second model, the accountable entity is a care management organization working with a physician office. This model acknowledges that limiting care coordination incentives to provider groups capable of investing in the necessary infrastructure on an at-risk basis would limit the number of beneficiaries that could benefit from the services. This model recognizes the central role physicians and their staffs can play in managing the care of complex cases, but acknowledges that additional professionals and information systems are needed for patient education and monitoring across settings and over time.

About 35 percent of office-based physicians are in solo or two-physician practices (Hing et al. 2005). These smaller practices, if grouped with others, might be able to participate in the first model and furnish all of the care coordination services themselves. However, on their own, these practices may not be likely to offer a broad spectrum of care management activities within their practice, and would not meet the specified criteria for participation outlined in our first potential model (e.g., patient panel size, information systems, and care managers).

The second model also recognizes that a number of care management organizations outside of provider settings have developed programs that could benefit beneficiaries with complex needs. For example, in the MHS pilot, CMS contracts with care management organizations willing to take responsibility for relatively large populations. These organizations are generally not a part of physician offices or integrated health systems. The patient is the primary

focus for these organizations. But, because the patient's clinical care is critical, the external organization also has strong incentives to coordinate its activities with the patient's physicians. In these situations, Medicare could allow stand-alone care management organizations, such as those contracting with the MHS pilot, to provide the necessary care managers and information systems.

These external care management organizations would employ the nurse care managers and information systems to assess patient severity levels and target interventions. The physician office would refer complex patients to the care management organization and agree to collaborate with it to coordinate the beneficiaries' care.

The Advanced Medical Home model outlined by the American College of Physicians provides useful design suggestions for either model (ACP 2006). Physicians would need to choose which type of model best suited their practice. The Advanced Medical Home model envisions that beneficiaries would identify a physician who they would commit to see for care related to their complex needs. This feature is a part of both models. Further, physician practices that meet criteria outlined in the group model (including ongoing monitoring of patients with care managers and information technology) could become accountable entities. Other physicians might opt to work with stand-alone care management organizations in our second model.

Payment method

Payment methods in both models would be similar. Payment to the care coordination entity (the group or the care management organization) would be tied to cost savings and quality goals through either shared savings or an at-risk care management fee. An incentive payment could go to physicians to encourage them to collaborate with these programs. In the case of a group, this incentive payment would go to the group. A separate payment may be less necessary when the group practice has a care coordination program. But if the two models coexist and the incentive payment only went to the individual physicians working with the care management organizations, physicians who practice in groups could be disadvantaged.

Given the challenge of the long-term sustainability of the Medicare program, limited evidence on cost savings, and the need for Medicare to move to value-based purchasing, putting the accountable entity at some risk gives a strong incentive to provide cost-effective, quality-enhancing

interventions. Further, this type of financial risk can provide physicians, hospitals, and others flexibility in designing care coordination strategies. The alternative—fees with no risk—requires Medicare to define the specific set of services, how they could be delivered, and who would be eligible for payment. Once care coordination has proven to be effective, demonstrated savings may not continue to be necessary and may also be more difficult to calculate. As more beneficiaries use these services, it would become increasingly difficult to achieve cost savings as the control group will shrink over time.

At-risk payment for care coordination services The purpose of an at-risk payment is to create a strong incentive to provide cost-effective interventions. Here we consider two types of at-risk payment—shared savings and an at-risk care management fee. Both require the accountable entities (provider groups in model one or external care management organizations in model two) to take on “business” risk for the population they serve. The downside risk involved for the accountable entity delivering the care coordination services would be limited to the costs of those services. The entity would be at no risk for delivering the actual Medicare benefits as is the case in the MA program. The accountable entity may not be paid for its services or not paid the full cost of them unless the costs of care for the population it serves are less than they would have been absent the care coordination services.

One type of at-risk payment is shared savings. Shared savings require the provider group or external care management organization to invest the resources necessary to coordinate care without any up-front payment. The organization receives payment only if its efforts create savings for the Medicare program. We found no examples, other than the PGP demonstration, in which this incentive is the only form of payment. However, the organizations involved in the PGP demonstration described this approach as a strong incentive to encourage better coordination, although the specific design raises concerns, which we discuss later.

An at-risk care management fee is used by the MHS program and the Medicare high-cost beneficiary demonstration. In these models, CMS pays the organization a negotiated fee for care management up-front, but part or all of the fee must be paid back if the program does not meet specified savings targets and quality goals. In the high-cost beneficiary demonstration the organizations can also opt to share in any savings over and above the care management fee.

Physicians and hospitals in both models are still paid under fee-for-service for Medicare-covered clinical services. However, if at the end of a certain time frame the Medicare program expenditures (Parts A and B) for the assigned population are lower than those of an equivalent population used as a control group, the organization is either eligible to share in the savings or allowed to keep part or all of the care management fee.

Both the shared savings and at-risk care management fee concepts are relatively straightforward, but the calculations to determine whether and how much savings should or did occur are complex. It is necessary to identify either a population with which to compare costs or to calculate an expected cost trend and then compare it with actual costs.

The time frame over which the savings are calculated is also important. Depending on whether the physician group or external care management organization already has an infrastructure in place and how quickly it is able to enroll beneficiaries, it could take several years before the full impact of the program is shown.

If fully implemented, it might be difficult to define an expected cost trend independent of care coordination services. Over time, calculating savings would become more difficult as more beneficiaries became eligible for care coordination services. Currently, care coordination services are only offered to beneficiaries in regions where a Medicare demonstration or pilot is located. If implemented as a part of the Medicare program, it will not be possible to withhold these services from eligible beneficiaries who currently make up the control group. Further, even if the calculations were based on expected costs, every year the base would shift as increasing numbers of beneficiaries were served by these programs.

The risk of the two forms of incentives are different, with shared savings requiring more up-front risk (no payment is provided until savings are realized) but a higher potential pay-out if savings above the cost of the intervention are realized. The at-risk care management fee allows organizations to receive payment up front, but if sufficient savings are not realized, they must pay some or all of it back. Medicare could also consider withholding part of the fee and waiting to pay the rest at a later point in time based on performance. It is yet to be seen if organizations currently contracting with CMS that do not meet their targets are willing or able to return this money.

Different types of organizational structures may favor one financial incentive over another. Larger organizations

may be better able to afford the initial up-front investment in the shared savings payment, while smaller entities may prefer the at-risk care management fee. Whether large or small, provider groups may also find the up-front investment required in shared savings aligns with other internal goals. For example, some of the PGP demonstration sites noted that the infrastructure developed for the demonstration, such as interoperable electronic health records or other mechanisms for tracking patients, was already a part of their overall strategic plan. A small physician practice may also have made some of these investments and appreciate the opportunity to be rewarded for achieving better patient outcomes.

Provider groups with hospitals in their systems may be most effective in creating savings, but because savings targets are determined based on the costs of both Part A and B services, these groups will need to consider the loss of revenue from reduced admissions when deciding whether to offer a care coordination program. It may be easier for provider groups with hospitals to identify patients with complex conditions, to afford the necessary infrastructure, and to create teams of physicians and hospital personnel. Hospital and physician teams can prevent further hospitalizations after discharge and provide ongoing services to keep the patient as healthy as possible. Further, because the savings these programs create are often a result of lower admissions, provider groups with hospitals may have an incentive to be a part of a care coordination program to ensure that at least some of the revenue lost from decreased admissions is made up through either the shared savings or the care management fee.

However, because much of the savings come from decreased hospitalization, provider groups with hospitals may find it hard to achieve a net gain in dollars sufficient to cover their investment. One PGP demonstration site with a hospital projected that the share of savings it could achieve would not be enough to cover the loss of hospital revenue and the intervention costs. Another factor to consider is whether hospitals are located in markets with sufficient demand to replace patients that may avoid hospitalizations due to improved care coordination.

Decreasing avoidable hospitalizations is an important goal for individual patients and the Medicare program, and this type of investment may have some long-term benefits for the provider organization. However, organizations with hospitals will need to carefully balance the potential dollars lost with those gained.

The level and formula for calculating savings required are also issues. In the PGP demonstration, CMS keeps the first 2 percent of savings for the Medicare program—regardless of the level achieved—because of a concern over random variation. Beyond that, any difference between the expected and actual beneficiary cost of care (including the care coordination services) can be shared with the provider group. If the savings are 5 percent, CMS keeps the first 2 of the 5 percent—40 percent of the savings created by the program.

It is unclear whether it is feasible for provider groups to reap any savings over and above the sum of 1) the Medicare 2 percent withhold, 2) the cost of the interventions, and 3) the loss of revenue from decreased admissions, at least for a provider group with a hospital. A more equitable approach might be for CMS to designate a percentage that would go to the program regardless of the dollars saved. For example, CMS could keep a certain percent of every dollar saved, regardless of the level of savings.

When paying an at-risk care management fee, CMS negotiates the target savings level. The target in both the MHS and the Medicare high-cost demonstration is 5 percent. As the demonstrations progress, we will learn more about whether that level is achievable and at what cost.

Fee for physician interaction with care management The second component of payment under both of our models is a fee to recognize the physicians' time to interact with the care management program on behalf of their complex eligible patients. The goal of this fee is to encourage physician involvement in care coordination.

Currently, CMS does not pay physicians to participate in any of these programs. Provider groups and the current care management organizations have an incentive to engage physicians because they are at risk for achieving savings. Our interviewees, particularly those not affiliated with a provider group, described numerous mechanisms they currently use to engage enrollees' personal physicians, including sharing the care management fee CMS pays to the organization with their beneficiaries' physicians.

The Medicare program could decide that the incentives in current models are sufficient for encouraging physicians to interact with the care coordination programs and that

direct Medicare payments are not necessary. However, interviewees have noted that some physicians do not view external programs as supportive because they demand time for which their offices are not compensated. While it may not be as necessary to provide these payments for physicians in provider groups, they will also need to spend time interacting with the care coordination program, even if it is internal to the practice. Further, if our illustrative models coexisted, the Commission would not want to disadvantage physicians who practice in more integrated systems of care. Therefore, both of our illustrative models include payments to physicians or groups to pay for time spent communicating with the care management program generally outside of office visits.

How would the physician office fee work? Medicare could establish monthly fees to cover the interactions between physicians and the care management program. Although some face-to-face visits are necessary to discuss program enrollment options and referral requirements, Medicare's payments would primarily be aimed at covering non-face-to-face activities involved in the patients' care coordination. The fee would cover activities related to referrals, patient information transfers, care plan oversight, and ongoing communications between the physician's office and the care management organization on patient status and progress. The fee would not require the physician to bill separately for these activities. For example, physicians would not bill separately for phone calls on behalf of the enrolled patient; rather, physicians would document this activity and consider it covered in their monthly fee from Medicare.

This new fee would be introduced as a new code on the physician fee schedule. As with other fee schedule services, these expenditures would be accommodated by reallocating dollars among all services in the fee schedule. A certain level of documentation would be required to ensure that the services for this code were provided when billed. Although Medicare does not generally reimburse for non-face-to-face encounters, some precedents do exist, and are discussed in the text box.⁹

Enrollment and eligibility

In both models, we assume that CMS would use administrative data to identify a population for which the care management organization would be evaluated for cost savings. We also assume that physicians would refer additional patients. If a physician office wished to be compensated for time coordinating with the care

Examples of current coverage for care coordination without face-to-face contact

For home health and hospice patients, Medicare covers three activities that physicians provide—certification, recertification, and care plan oversight (CPO)—without requiring face-to-face encounters. This coverage recognizes the need for physicians to provide important care management activities without requiring the patient or the physician to make face-to-face contact. This exception to Medicare's general face-to-face requirement shows an example of how Medicare can broaden its coverage of care coordination activities to include the interaction of physicians with care management organizations for complex patients. It also illustrates ways that Medicare can direct payments for care coordination activities through the physician fee schedule.

The physician fee schedule includes billable codes for certification, recertification, and CPO of home health and hospice patients. Billable activities include:

- communication with interdisciplinary team and pharmacist, including phone calls or other verbal communication;
- review of patient status reports;
- modification of plan of care, including the review and signing of modification orders; and
- review of lab results, reports, and records.

CPO must be furnished by a physician, a nurse practitioner, clinical nurse specialist, or physician assistant with a collaborative relationship with the physician who signed the initial hospice or home health

agency plan of care. Beneficiaries can receive CPO services if they require complex treatment, are being cared for by multidisciplinary teams, and are enrolled in a Medicare-approved home health agency or hospice.

The CPO services must take at least 30 minutes in a calendar month to be billable. The services do not need to be provided on the same day, but the total services over the course of a month must add up to at least 30 minutes. The physician or nonphysician practitioner must personally document the date, the time spent, and a brief description of the activities provided in the patient's record. The physician must have had a face-to-face service with the patient within six months of billing for the CPO.

A precedent also exists for monthly fees for care management activities for certain physicians treating specified patients. Medicare makes monthly payments to physicians who provide renal dialysis services to patients with end-stage renal disease. This fee includes many of the evaluation and management activities involved with dialysis patient care, including care coordination activities provided during the month, such as telephone calls and coordination with dietitians and social workers.

Although adjusted by the number of times the physician makes face-to-face contact with the patient, the fee includes coverage for non-face-to-face activities that occur between visits. Like the CPO requirements, the monthly service codes represent a full calendar month of services. Also, only one physician per patient may bill for the monthly fee. ■

management program, its eligible patients would need to designate the physician as their primary source of care in order to receive the care coordination services but could switch designations at any time.

In both models, the accountable entity would determine which beneficiaries need differing levels of care coordination services. However, the calculations of cost

savings necessary for determining payment would be performed on the overall population identified by CMS.

In addition to direct enrollment by the care management organization, physicians would be encouraged to refer eligible patients to the program in both models. One question would be whether the care management program would be required to accept all physician referrals, given it would be at risk for cost savings and physicians might

refer less complex patients when paid for coordinating their care.

We also assume that the patients in both models would need to demonstrate a certain level of commitment for working with the physician's office. While not locked into only seeing this physician, beneficiaries could identify the practitioner they believe oversees most aspects of their care and designate him or her to be the contact with the care management program. This practitioner, or the group on behalf of the practitioner in the case of a provider-based program, would receive the monthly fee when the beneficiary enrolls in the care management program. This designation of a primary physician is also a part of the Advanced Medical Home concept described in the previous section: Patients are encouraged to choose one physician, either a primary care physician or a specialist for the patients' chief chronic medical condition, whose office will serve as the central resource.

Accountability

How can Medicare ensure that the care coordination programs are effective and that the physician fee is being used for what it was intended? Care coordination programs should be evaluated both in terms of cost savings and quality improvement. Physician accountability for interacting with the care coordination program is also important.

Regarding cost savings, much of the accountability is built into the payment mechanism. In both our models, the care coordination program would be accountable for a certain level of cost savings.

Related to quality, a variety of process and outcome measures are currently in use in the CMS pilot and demonstrations and we see them as a part of our two models. Additionally, surveys of patients' perceptions of care could also provide information on patients' experience with the program.

Table 2-4 shows the mix of process and outcomes measures used in the PGP demonstration, many of which are also used by CMS for evaluating MHS contractors. Other outcomes measures, such as reduced admissions (including readmissions), could also be used for both cost and quality accountability.

Patient surveys could also capture patient experience in the program. Several of our interviewees noted that CMS was including this type of information in its assessments. The interviewees also used patient perceptions to gauge

the performance of their own organization. One survey (the Care Transitions Measures) could be used to assess patients' knowledge of how to manage their condition, including recognition of symptoms that indicate they should see a physician (see text box on page 38). The MHS pilot includes patient satisfaction as one measure of accountability.

After the appropriate quality measures are defined, how they are used for payment is also an issue. In the PGP demonstration, the level of savings available to the organization varies based on quality scores. Over the three years of the demonstration, the percentage of payments based on quality scores increases. In the first year, quality scores are 30 percent of the overall score, whereas in the third year they rise to 50 percent of the score. Over time, as it becomes more difficult to calculate cost savings, CMS could rely more heavily on quality measures and could focus those measures on conditions most influenced by care coordination services.

Physician offices that bill for the fee to coordinate with the care management program would be accountable for their fees in much the same way they are accountable for other fee schedule services they provide. Because physician fees would not be at risk, establishing practical mechanisms of physician accountability will be important. Historically, Medicare's reluctance to pay for services that do not require the patient's presence is based on program integrity concerns. However, recent exceptions to the face-to-face requirement include ways to establish accountability documentation for fees billed to Medicare without face-to-face contact. Physicians may also share in accountability for the quality measures through a pay-for-performance program.

Other mechanisms to improve chronic care management

Several other mechanisms can directly and indirectly improve care coordination and chronic care management. For example, Medicare could increase payments for evaluation and management (E&M) services or establish new billing codes to enhance payments for chronic care patients associated with face-to-face visits. These higher payments could be applied generally across all E&M codes, or they could be limited to services provided to patients with multiple chronic conditions. Other mechanisms include pay-for-performance initiatives and strategies to accelerate the adoption of information technology.

**TABLE
2-4**

Examples of quality measures: The PGP demonstration

Diabetes	CHF	CAD	Preventive care
HbA1c management	Left ventricular function assessment	Antiplatelet therapy	Blood pressure screening
HbA1c control	Left ventricular ejection fraction	LDL cholesterol lowering drugs	Blood pressure control
Blood pressure management	testing	Beta-blocker therapy for a patient	Plan of care
Lipid measurement	Weight measurement	with prior myocardial infarction	Breast cancer screening
LDL cholesterol level	Blood pressure screening	Blood pressure	Colorectal cancer screening
Urine protein testing	Patient education	Lipid profile	
Eye exam	Beta-blocker therapy	LDL cholesterol level	
Foot exam	Ace inhibitor therapy	Ace inhibitor therapy	
Influenza vaccination	Warfarin therapy		
Pneumonia vaccination	Influenza vaccination		
	Pneumonia vaccination		

Note: PGP (physician group practice), CHF (congestive heart failure), CAD (coronary artery disease), HbA1c (hemoglobin A1c), LDL (low-density lipoprotein).

Source: Research Triangle Institute Project Number 07964.013. Prepared for CMS. Physician Group Practice Demonstration Quality Measurement and Reporting Specifications, Version 2, July 29, 2005

Medicare fee-for-service already covers some care coordination services in its current E&M codes, as described in the text box on page 53. Although these commonly used codes technically include time for pre- and post-visit care coordination activities associated with office visits, they may not adequately account for the extra time and effort needed for complex patients either within the visit or between visits. This concern is compounded for physicians who have higher-than-average shares of patients with chronic illnesses. New medications and clinical protocols may warrant the introduction of new or higher payments for tracking and monitoring complex patient care. During our research, interviewees and experts repeatedly stated that even upper-level E&M codes have not kept pace with the physician resources needed for pre- and post-visit time necessary to treat complex patients.

Additionally, the physician fee schedule provides financial incentives for the physician to see more patients rather than spend extra time counseling a patient during a visit. That is, physicians may bill certain add-on codes for face-to-face visits that significantly exceed the usual service duration, but these codes carry lower payments than the physician may otherwise receive seeing a different patient for the same amount of time.

The American Medical Association/Specialty Society Relative Value Scale Update Committee (RUC) recently recommended an increase in payments for the majority of Medicare's E&M codes (Coughlin 2006). These increases

are not limited to complex patients but apply to all patients with longer visits. These recommendations apply to the work relative value units (RVUs) of the Medicare fee schedule.¹⁰ If CMS accepts the RUC's recommendations, then it will designate the RVU increases for selected E&M codes in its proposed rule for the 2007 physician fee schedule.

Broader policies to increase payments for E&M services would recognize the importance of care management services that are directly linked to face-to-face E&M visits. Similarly, establishing new billing codes for comprehensive services provided to beneficiaries with multiple chronic conditions could help achieve these goals.

Physicians and other Part B providers, such as nurse practitioners, who play larger roles in patient care management would be most likely to bill these codes. These providers may include any type of physician who manages the care of eligible patients, including primary care providers, geriatricians, and specialists, such as cardiologists with large caseloads of patients with multiple chronic conditions. Because changes in RVUs for fee schedule services are done in a budget neutral manner, revising or introducing codes for E&M RVUs would not theoretically incur additional Medicare spending for physician services.

Pay-for-performance initiatives (in which a portion of providers' payments are based on the quality of their care) are an additional mechanism for improving care

coordination in FFS Medicare. In a recent report to the Congress, the Commission discussed design principles and implementation issues for establishing pay-for-performance programs in Medicare (MedPAC 2005). We recommended that the Congress establish a quality incentive payment policy for physicians in Medicare. Such a policy could enhance several aspects of care quality, including care coordination.

Indicators that measure care quality are likely to capture, to some degree, the level of care coordination involved in providing care. That is, higher care quality may well signal better care coordination. Thus, initiatives to make higher payments to providers with better performance on process and outcome measures may, in turn, promote better care coordination.

Data management is a major component of care coordination programs. Initiatives to accelerate physicians' adoption and use of IT may also improve the coordination of care for Medicare beneficiaries. Indeed, pay-for-performance measures could spur physicians to adopt information technology that improves care. Further, providers would be building the infrastructure needed for future quality and pay-for-performance assessments. The Commission has recommended that pay-for-performance programs include measures of functions that are supported by the use of IT. For example, quality measures on providers' ability to track progress on all their Medicare patients with diabetes could encourage physicians to adopt IT and improve care coordination. ■

Current fee schedule billing allowance for care coordination activities

The physician fee schedule includes a family of evaluation and management (E&M) codes for billing Medicare based on different types of encounters, such as office or hospital visits with either new or established patients. Under the fee-for-service payment system, physicians and certain nonphysician practitioners (such as nurse practitioners and physician assistants) bill Medicare for E&M services using the physician fee schedule. Other office personnel, such as registered nurses, may perform activities included in the E&M service considered “incident to” the physician’s service, such as taking a blood pressure or calling the patient with lab results.

In general, care coordination and care management services are considered a part of the E&M visit, and Medicare requires that the patient and the provider have a face-to-face encounter to bill for such services. Each E&M code includes physician time allotted for preparing, caring for, and following up on patients. These times are called pre-, intra- and post-service times and they are included in the physician work valuation of the code. Activities conducted by support staff (including registered nurses, licensed practical nurses, medical secretaries, receptionists, and technicians) are included in the practice cost relative values.

The fee schedule lists E&M codes by the level of care provided to allow for a continuum of relative values

and corresponding fees for each service. Specifically, E&M codes are broken down by the degree to which three service components—history, exam, and medical decision making—occurred during the service. Therefore, physicians usually bill Medicare based on the content of the service they provided rather than the amount of face-to-face time they had with the patient during a visit.

In cases where face-to-face contact was consumed mostly by care coordination and counseling, physicians may bill an E&M code based on the total time the physician spent with the patient rather than the extent to which the three service components were included in the visit. For example, if a face-to-face visit focuses mostly on a review of treatments prescribed by a patient’s specialists and does not include an exam or medical history, the physician may still bill as if these components were present. Thus, when care coordination activities consume most of an appointment, they can be substituted for other required components that are needed to support code selection.

Additionally, physicians may bill certain add-on codes for visits that significantly exceed the usual service duration. These are called prolonged service codes, and CMS specifies that physicians may bill them when face-to-face contact during an E&M visit exceeds specified time thresholds by at least 30 minutes. ■

Endnotes

- 1 The Commission recommended in the March 2005 report to the Congress that Medicare build incentives for quality improvement into the payment systems for hospitals, physicians, home health agencies, dialysis facilities and physicians who treat dialysis patients, and Medicare Advantage plans. We also recommended that CMS measure the relative resource use of physicians and provide confidential feedback.
- 2 This analysis was based on the number of evaluation and management claims with unique personal identification numbers for beneficiaries in 2003.
- 3 Many of the programs we describe in this report use other terms for their activities, such as disease management or case management. Disease management programs promote self-management, but for the most part have not been designed to manage health conditions broader than a specific disease (Wolff and Boulton 2005). Care coordination uses disease management tools, but applies them broadly to the whole patient with the understanding that Medicare beneficiaries who need this level of management often have multiple chronic conditions. Some of the attributes of care coordination are also similar to case management, whereby a manager ensures that care for very sick patients is well managed, often within a setting of care.
- 4 Other types of information gathering tools include home monitoring devices, such as special phones that patients use to call in vital signs, easy-to-use blood pressure cuffs, and patients' scales that automatically send the readings to the care management database.
- 5 One program used a salaried group of physicians, in addition to a nurse care manager, to do home visits for a defined client base. It is yet to be seen if this is a cost-effective model. The beneficiaries in this program are very complex, and the concept is to provide hospital-level care at home. If the patient needs urgent physician attention, the organization can send the physician to the home rather than referring the patient to the emergency department or hospital. The organization stated that patients who are hospitalized are often sent home earlier because the physicians in the hospital know that they are discharging the patient to a physician. The patients still see their primary physician, but physicians who do the home visits are also available and familiar with the patient's needs.
- 6 In some programs, such as the physician group practice demonstration sites, beneficiaries did not have to agree to participate. They were a part of the program (with varying degrees of intervention) if they were patients of the physician or other providers who provided care coordination services.
- 7 Even though some beneficiaries in the group died, a sizable portion of people in the top 5 percent subsequently had lower spending.
- 8 Rates of readmission decrease significantly for these conditions if the analysis only includes readmissions for the same diagnosis. However, our analysis still shows that these beneficiaries are vulnerable to repeat admissions, regardless of the primary diagnosis.
- 9 Although the Current Procedural Terminology list of billing codes, published by the AMA, includes some non-face-to-face physician services, such as a phone consultation, Medicare does not associate them with any RVUs and thus does not make payments for these codes.
- 10 For a further description of the Medicare physician fee schedule and its use of RVUs, see MedPAC's Payment Basics series at http://www.medpac.gov/publications/other_reports/Dec05_payment_basics_physician.pdf.

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