What Works in Care Coordination? Activities to Reduce Spending in Medicare Fee-for-Service

Summary
The rapid increase in health care spending in the United States over the past two decades and its anticipated growth in the coming years can be tied inextricably to the increasing number of people with multiple chronic conditions. Medicare beneficiaries are especially likely to have numerous conditions, with two-thirds of Medicare spending attributed to patients with five or more chronic conditions. Medicare Fee-For-Service (FFS) spending, in particular, accounts for over three quarters of the total Medicare spending. Gaps in the coordination of care for these chronically ill patients, including inadequate transitional care from hospital to home and insufficient management of multiple medications, often result in poor care quality, increased hospital admissions, and growing health care expenditures in Medicare.

Care coordination can be defined broadly as the conscious effort by two or more health care professionals to facilitate and coordinate the appropriate delivery of health care services for a patient. However, measuring the effectiveness of care coordination activities to reduce spending and improve the quality of care can be challenging due to limited implementation time, high intervention costs, and varying outcome measures and study populations. Many demonstrations and studies have reported little or no change in the total health care spending.

This report discusses recent evidence from two illustrative examples of care coordination activities that do, in fact, prove promising for reducing the spending and improving the quality of care in Medicare FFS:

- Transitional care refers to the management of a patient’s care during a transition from one care setting to another, typically from the hospital to the home. The Care Transitions Intervention program and the Transitional Care Model are two specific transitional care approaches that have been implemented in a variety of settings, resulting in reduced readmission rates and, subsequently, reduced hospitalization costs.

- Medication management programs have helped reduce health care spending in a variety of health plans. Sponsors of the optional drug benefit, or Part D, of Medicare are required to offer medication therapy management services to enrollees meeting the eligibility criteria. Recent evidence, however, suggests that medication management should be connected comprehensively to the clinical services provided and focused on improving outcomes measured by physicians or other providers during patient visits.

Genesis of this Brief:
This report is drawn, in part, from a panel discussion on a relevant topic held Sunday, June 24, 2012, at AcademyHealth’s Annual Research Meeting in Orlando, FL. Panelists were Adam Atherly, Ph.D., senior chair and associate professor, Health Systems, Management and Policy Department, University of Colorado School of Public Health; Eric Coleman, M.D., M.P.H., professor of medicine and head of the Division of Health Care Policy and Research, University of Colorado School of Medicine; Terry McInnis, M.D., M.P.H., president, Blue Thorn, Inc. Kenneth Thorpe, Ph.D., from the Rollins School of Public Health at Emory, moderated the discussion.
While these activities require few new resources and are relatively sustainable, incorporation of new provider roles and payment models into the delivery system represent transformational shifts. Much evidence exists to prove the effectiveness of various care coordination approaches, but more health services research is needed to strengthen the evidence base for using and spreading such services and tools to improve health outcomes and reduce Medicare spending in real-world settings. In addition, implementation of these activities within the current Medicare FFS structure may be challenging. The current financial incentives in FFS reward physicians for the volume of services and procedures, not care coordination activities or the improved quality of the services. By including provisions aimed at accelerating the transition from the fee-for-service system to a value-based payment system structured around financial incentives for reduced hospital readmissions and meeting federal performance standards, the Affordable Care Act of 2010 may help encourage health care providers and systems to participate in care coordination activities. Improving the coordination of care for the growing number of Medicare beneficiaries with multiple chronic conditions is likely to improve the quality of their care and health, and also will reduce the Medicare spending often attributed to unnecessary readmissions and drug therapy problems.

Why is care coordination important? Why should we focus on Medicare FFS?

Health care spending in the United States has risen dramatically in the past two decades, due in large part to chronic conditions such as diabetes and hypertension. In 2000, 125 million Americans had one or more chronic conditions, and this number is projected to increase by more than 1 percent each year through 2030. Currently accounting for 84 percent of the nation’s health care expenditures, chronic illnesses increasingly are being treated in outpatient settings or at patient homes. Due to poor transitional care and insufficient management of multiple medications, chronically ill patients are often treated inadequately in these care settings, resulting in increased hospital admissions and additional spending.

Health Care Spending

Medicare beneficiaries are more likely than others to live with multiple chronic conditions and receive a variety of services and treatments. In 2005, more than half of Medicare beneficiaries were treated for five or more conditions each year, and the typical beneficiary was being served by two primary care physicians and five specialists across four different practices. This fragmentation of services for chronically ill patients, in addition to financial incentives rewarding volume of services over outcomes and the lack of communication tools for providers, has led to inadequate coordination of care across settings and providers. Insufficient care coordination often leads to poor care quality. The repeated diagnostic testing and medical histories, multiple prescriptions and adverse drug interactions, and unnecessary Emergency Department utilization and hospital readmissions resulting from poor care coordination subsequently increase health care costs.

Number of Different Physicians Seen by People with Serious Chronic Conditions

Care coordination, a concept with multiple definitions, broadly refers to the conscious effort by two or more health care professionals to facilitate and coordinate the appropriate delivery of health care services for a patient.\textsuperscript{16} Care coordination activities promote a holistic and patient-centered approach to care to help ensure that a patient’s needs and goals are understood and shared among providers, patients, and families as a patient moves from one healthcare setting to another.\textsuperscript{17} This brief discusses a few illustrative examples of effective care coordination approaches, including transitional care and medication management.

A variety of health plans, including the Program of All-Inclusive Care for the Elderly (PACE) in Medicaid and Medicare,\textsuperscript{18} plans participating in Medicare Advantage (MA),\textsuperscript{19} and many of those serving private employers, have developed and tested disease management programs aimed at improving the coordination of care, but few programs have been implemented in the traditional Medicare fee-for-service (FFS) program. The FFS program accounted for 79 percent of the total Medicare expenditures in 2007, underscoring the significance of this omission.\textsuperscript{20} Care coordination holds particular promise for Medicare FFS not only because many beneficiaries are high-cost patients with multiple conditions and providers, but also because Medicare is a well-financed program with administrative data that are relatively accessible and easy to analyze. These claims data are necessary to designing and evaluating studies that assess the effectiveness of care coordination approaches to reduce Medicare spending and hospital readmissions, while improving clinical outcomes.

Two-Thirds of Medicare Spending Is for People with Five or More Chronic Conditions

![Chart from the Robert Wood Johnson Foundation: http://rwjf.org/pr/product.jsp?id=50968.]

State of the Research

While there is a long history of Medicare demonstrations and Medicare Advantage health plans implementing care coordination approaches, such interventions have had little impact on Medicare spending.\textsuperscript{21} For example, evaluations of the disease management and care coordination demonstrations conducted by Medicare in the past two decades showed either no change in Medicare expenditures or an increase in spending because of the fees incurred for implementing the programs.\textsuperscript{22} Interventions that included direct communication between the care manager and the physician, or between the care manager and the patient, were the most successful in reducing Medicare spending; however, the savings typically were not large enough to offset the program implementation fees.\textsuperscript{23} When specifically examining interventions on a smaller scale and characteristics of the providers and practices implementing those interventions, a few evaluations of care coordination approaches have suggested success in reducing hospital admissions and Medicare spending.\textsuperscript{24} However, additional research is needed to confirm that these programs would work in Medicare FFS and other public plans. Often, the structure of the health plan, care delivery systems, and practice traits determine whether an intervention will be successful. Restructuring the Medicare FFS program to improve and support care coordination will require major changes to the financial incentives, fee schedules, and perceptions about primary care. The current financial structure creates incentives for physicians to offer a high volume of services, whether or not they are necessary. Any care coordination activities performed by physicians or other health professionals are not separately reimbursed by Medicare. In addition, the limited size of the primary care workforce is not sufficient to provide additional care coordination services.\textsuperscript{25}

Most care coordination approaches, such as transitional care models, can be applied to an array of services and settings, whereas other approaches focus more specifically on the management of drugs prescribed to patients with multiple chronic conditions. While much of the research has shown little or no decrease in Medicare spending as a result of disease management and care coordination demonstrations, this brief presents recent evidence supporting a few effective interventions in both transitional care and medication management.
What Works in Care Coordination? Activities to Reduce Spending in Medicare Fee-for-Service

What Works in Transitional Care?
Activities to coordinate care for a variety of services, settings, and patient populations can be categorized as following either a “practice transformation,” “care manager,” or “transitional care” approach.

- Practice transformations require structural changes in the delivery of services and management of providers, including efforts to improve patient-centered care and collaborations with external care settings and resources. This type of care coordination can be based on one of many delivery models, such as medical home models or the chronic care model. 26

- The care manager approach, on the other hand, requires one individual to serve as the care manager in a practice, where he or she identifies the high-risk patients and helps manage the care transitions, medications, and home-based care.

- Likewise, transitional care models incorporate care managers to facilitate the transitions across care settings and coach patients to manage their own care. 27

Of these three more comprehensive approaches, this brief will focus specifically on examples of effective transitional care activities, which incorporate features from practice transformations and care manager models, but generally are less resource intensive.

Care Fragmentation When Moving Between Settings
Transitional care programs, a highly-prioritized item in the Affordable Care Act of 2010, help chronically ill patients transfer from hospitalization to a different setting and different level of care. Transitions from one setting or provider to another often lack clear communication and coordination regarding patient histories, drug therapies, and patient needs and satisfaction. These discrepancies and gaps in coordination contribute to unnecessary health services and rehospitalizations, adverse clinical events, increased spending, and poor care quality and patient safety. 28

Approximately 19 percent of Medicare hospital admissions result in a readmission within 30 days, with avoidable rehospitalizations in 2004 totaling $17.4 billion in costs to Medicare. 29, 30 One study found that almost 31 percent of Medicare beneficiaries discharged from hospitals experienced two or more transfers to different care settings, such as nursing facilities or emergency departments, during a 30-day period. 31

Interventions to Improve Care Transitions
To streamline care transitions from hospital to home, reduce rehospitalization rates, and cut Medicare spending, the Care Transitions Intervention program incorporates coaching and home visits by professional care coordinators. The four-week program, which was developed by Dr. Eric Coleman at the University of Colorado Medical School, utilizes these designated Transition Coaches to train complex patients and their family caregivers how to manage their own care. By leveraging existing providers, including nurse practitioners, nurses, and social workers, to serve as Transition Coaches, the limited workforce of the primary care system can reach a large number of Medicare beneficiaries. 32

Many chronically ill patients and their caregivers already serve as their own primary care coordinators every day, but they lack the skills, tools, and confidence for effective care management and communication of their care preferences and clinical goals. A number of qualitative studies have reported that patients are often unprepared for the next care setting, receive conflicting advice from providers, are often unable to get in touch with the appropriate provider, and have little input into their care plan. 33 Under the Care Transitions Intervention model, the Transitions Coach makes one home visit and three phone calls to the assigned patient over 30 days, and provides a variety of other services, ranging from acting out a role-play of the next medical visit to creating an accurate medication list to support medication reconciliation and adherence. 34

Percentage of Physicians Identifying Problems Coordinating Care with Different Providers and Entities

<table>
<thead>
<tr>
<th>Percentage of Physicians Identifying Problems Coordinating Care with Different Providers and Entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools or employers</td>
</tr>
<tr>
<td>Non-hospital institutions</td>
</tr>
<tr>
<td>Social services</td>
</tr>
<tr>
<td>Other physicians</td>
</tr>
<tr>
<td>Other health care professionals</td>
</tr>
<tr>
<td>Family members</td>
</tr>
</tbody>
</table>

Percentage of Population with Chronic Conditions Reporting They Receive Inadequate Information

<table>
<thead>
<tr>
<th>Percentage of Population with Chronic Conditions Reporting They Receive Inadequate Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received different diagnoses from different providers</td>
</tr>
<tr>
<td>Received information about drug interactions upon filling prescription</td>
</tr>
<tr>
<td>Received conflicting form from providers</td>
</tr>
<tr>
<td>Had duplicate tests or procedures</td>
</tr>
</tbody>
</table>

Measuring Outcomes
The goals after 30 days of transitions coaching are for patients to demonstrate management of their own medications across providers and settings, understand and utilize their personal health records, respond to any red flags in care, and schedule timely follow-up appointments. Success in meeting these goals during the intervention can be measured by reductions in 30-day readmission rates, whereas improvement in self-care once the coach is removed can be measured by significant reductions in 90-day and 180-day readmission rates.\(^{38}\) A randomized controlled trial conducted in a large integrated delivery system in Colorado reported reduced readmission rates at both 30 days and 90 days, as well as lower hospitalization costs for patients assigned to the Care Transitions Intervention program.

Application in Real World Settings
Because the approach used in the Care Transitions Intervention program is relatively adaptable to different care settings and does not require long-term support from the care coordinator, it also has proven successful in many real world settings, with over 750 health care organizations nationwide currently implementing the model. Only a year and a half into implementation, a 14-city demonstration of the Care Transitions Intervention in Colorado had saved an estimated $100 million in Medicare spending on hospitalizations for about 1.25 million enrollees.\(^{39}\) The John Muir Physician Network in San Francisco reduced their 30-day readmission rates from 11.7 percent to 6.1 percent and their 180-day readmissions from 32.8 percent to 18.9 percent. In addition, Health East in Minnesota reported a reduced 30-day readmission rate of 7.2 percent after implementing the program, compared to the initial rate of 11.7 percent.\(^{37}\)

The Transitional Care Model, a different approach to transitional care that has been implemented in a variety of settings, emphasizes pre-discharge and post-discharge care management for patients with heart failure and other chronic conditions. Both a randomized clinical trial and a randomized controlled trial of this particular model have reported reduced health expenditures and rehospitalizations.\(^{38}\)

Factors for Success
Research to-date suggests that many important factors influence the success of a transitional care approach, including model fidelity and accessibility in the public domain, the selection of the transitions coaches, and support for sustainability of the model.\(^{39}\) In an effort to make the Care Transitions Intervention model more sustainable and accessible to multiple providers and settings, the program offers free, online tools and resources, including a medical discrepancy tool, family caregiver tool, and other resources for health care professionals, such as a discharge preparation checklist (available at www.caretransitions.org). While the Care Transitions Intervention is relatively customizable to different patient populations, care settings, community dynamics, and practice or health system infrastructures, the most critical element is recruiting an engaged, committed Transitions Coach.\(^{40}\)

Transitional Care in Policy
To provide direction on improving care transitions, the Colorado Foundation for Medical Care (CFMC) has created a free, online toolkit which guides the user through an interactive map of the necessary steps to implementing transitional care interventions (available at www.cfmc.org). In addition, the National Transitions of Care Coalition (NTCC) provides information for patients and their caregivers, as well as tools and resources for health care professionals and policymakers on their website (available at www.ntcc.org).

In an effort to support these transitional care approaches to improving care coordination, the Affordable Care Act of 2010 created the Community-Based Care Transitions Program, which provides $500 million from 2011 to 2015 to health systems and community organizations that provide at least one transitional care intervention to high-cost Medicare beneficiaries with multiple chronic conditions.\(^{41}\) The Center for Medicare & Medicaid Innovation (CMMI) is currently conducting tests of various transitional care approaches with the aim of providing CMS with additional evidence for the effectiveness of this care coordination intervention in the Medicare program.\(^{42}\) Based on baseline projects from the Congressional Budget Office, Medicare could save $188 billion in health care spending from 2013 to 2019 by preventing avoidable hospital readmissions within 30 days.\(^{43}\) Yet, Medicare FFS likely will need to restructure the fee schedule and financial incentives inherent in the program for providers to actively adopt these activities.
What Works in Medicine Management?

In addition to inadequate management of transitions across care settings and providers, poor management and coordination of medications largely contribute to soaring health expenditures and hospital readmission rates. In 2008, the New England Healthcare Institute estimated that drug-related problems in ambulatory settings account for $290 billion per year in avoidable medical expenditures.44 These avoidable issues, which include a variety of drug-related problems, such as improper drug selection, an insufficient dosage, and drug interactions, also annually contribute to as many as 1.1 million deaths.45

Medication Management Approaches

Pharmaceuticals are the most common medical intervention and have the potential to both help and harm patients. An important component of improving the quality of care and reducing costs is ensuring through active management of medications that patients are getting the most benefits from their drug therapies.46 Discrepancies among the various medications and miscommunication between providers and patients lead to frequent medication-related problems and gaps in care coordination, which numerous health plans and systems have attempted to close through medication management programs.

Implementing a similar approach to the transitional care interventions discussed above, the Veterans Health Administration and state Medicaid programs have leveraged existing health professionals, especially pharmacists, to assist both patients and providers in the management of medications. With their extensive drug knowledge and with the role of dispensing drugs transitioning more to technicians and robotics, pharmacists are well-situated to provide face-to-face or telehealth medication management and to serve as the bridge between the prescribing provider and patient.47, 48

Since the mid-1990s, the Veterans Health Administration (VHA) has acknowledged the importance of medication management and has granted prescriptive privileges to pharmacists through Scope of Practice (SOP) arrangements. Currently, more than 2,200 VHA pharmacists practice under an SOP through which they collaborate with primary and specialty care physicians with the intention of achieving the optimal medication benefits for their patients. This arrangement often includes the authority of pharmacists to prescribe medications or suggest medication changes for patients. Similarly, the Fairview Health System in Minnesota has implemented an effective medication program, in which clinical pharmacists participate in over 20 collaborative practice agreements to manage patients’ medications.49 Since its creation in 1997, the comprehensive medication management program has provided care for more than 15,000 patients and resolved nearly 80,000 drug therapy problems.50

Through prevention of drug-related problems, some Medicaid medication management programs have been successful in reducing overall health expenditures. An evaluation of the face-to-face medication management provided by Minnesota Medicaid to integrated health system patients found an approximate return on investment of $1.29 per $1.00 in administrative costs, based on estimated cost savings for avoided office, urgent care, and emergency room visits.51

Medicare Part D Medication Therapy Management

Although these systems have been providing various drug management services for over a decade, the federal government officially coined the term medication therapy management (MTM) in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, which requires all Medicare Part D plans that cover prescription drugs to establish MTM programs for eligible beneficiaries. This Part D benefit aims to provide pharmacists the opportunity to move from product-centered to patient-centered practice by mandating and providing reimbursement for direct medication management services.52

The MTM programs are designed to help eligible Part D enrollees avoid or resolve drug-related problems and receive optimal medication benefits. Although the programs can be furnished by any qualified provider, pharmacists typically administer the services, which include interventions for beneficiaries and prescribers, an annual comprehensive medication review (CMR), and quarterly targeted medication reviews (TMRs) with follow-up services when needed. The CMR is required to include an interactive, person-to-person or telehealth consultation, which may result in an advised medication action plan for the beneficiary.53

While these services are offered to eligible beneficiaries as a benefit of Part D with the aim of improving their health outcomes, patients are enrolled on an opt-out basis giving them the option to decline services at any time. In fact, current participation of Part D enrollees in MTM programs and clinicians providing MTM services is lower than anticipated, making it difficult to evaluate the effectiveness of the programs in Medicare. A CMS evaluation of Part D MTM programs provided little evidence supporting which activities achieved the desired outcomes and how to measure and compare those outcomes. The changing criteria for MTM eligibility also make the evaluation of Part D MTM programs inconsistent and challenging. In an effort to increase the participation of Part D enrollees in MTM programs, CMS lowered the threshold for eligibility by reducing the required number of drugs and amount of drug payments.54 An unanticipated result of this expansion, however, was a number of large stand-alone plans restricting the number of eligible enrollees.55 Thus, the eligibility rate has actually dropped from 11 percent in 2008 to 9.1 percent in 2010. Meanwhile, the actual num-
What Works in Care Coordination? Activities to Reduce Spending in Medicare Fee-for-Service

number of participants in the MTM programs has remained stagnant at around 2.6 million since 2007.\(^{56}\) For 2013, the services are available for beneficiaries having multiple chronic diseases, taking multiple Part D drugs, and anticipated to have annual drug spends greater than or equal to $3,144.\(^{57}\)

Comprehensive Medication Management Services Provided by Clinical Pharmacists

Data from a “convenience” sample presented by Dr. Terry McInnis at the AcademyHealth Annual Research Meeting suggests that MTM tools in Part D focus on high-drug spend beneficiaries rather than their clinical goals and outcomes. Medication Management Systems, Inc., licenses software for an electronic therapeutic record and trains pharmacists to deliver comprehensive medication therapy services and use the electronic infrastructure. The data in the sample were drawn from the electronic health records of 1,101 patients eligible for Part D MTM services within a single Medicare Prescription Drug Plan. These patients, who had an average of 16.2 medications each, attended 2,230 appointments with clinical pharmacists who identified 6,466 specific drug therapy problems and resolved them through comprehensive medication management (CMM).\(^{59}\) As laid out in Table 1 (on page 8), these underlying problems can be grouped into several categories.

The CMM approach links medications and the resolution of drug therapy problems to clinical improvements. As a result of the comprehensive medication management provided by clinical pharmacists, the majority of patients in this sample realized improvements in clinical measures, such as systolic pressure and total cholesterol, and an estimated $1.86 million was saved in avoided hospitalizations, emergency room visits, long term care, and provider care. Only 3.1 percent of the total cost savings, however, were from avoided medication cost. The majority of savings were from medical costs when comprehensive medication management efforts linked the identification and resolution of a medication therapy problem (such as a dosage too low or untreated indication) to clinical goals and outcomes. Although data from this convenience sample are not generalizable, the systematic approach to care, pharmacist training, and electronic therapeutic record are similar to those used by Fairview and developed by the University of Minnesota College of Pharmacy. The growing research and practice around comprehensive medication management suggests that employing specially trained pharmacists in non-dispensing roles may be a successful model for medication management to improve outcomes and reduce overall costs in widespread delivery reform efforts.\(^{60}\)

Potential Issues with Part D MTM Programs

The current Part D MTM programs are not structured to address two of the three most common drug therapy problems: the need for an additional drug therapy or a sub-therapeutic dosage. Comprehensive Medication Reviews (CMR) do not require nor provide a means for the clinician delivering the services to know the current clinical status of the patient and the desired goals of therapy. For example if the patient’s current average blood pressure is 180/100 and the desired clinical outcome established by the provider is 130/80, an additional medication may be needed or a dosage of an existing medication increased. In the comprehensive medication management model discussed above, the pharmacists coordinated with both the health plan and the treating physicians or prescribers to understand the clinical status and goals for the patients.\(^{61}\)

The success of Veterans Health Affairs and Fairview Health programs, in addition to this convenient sample, suggest that a critical element to effective medication management is strategically utilizing clinical pharmacists as providers of care in collaboration with physicians and other prescribers through a comprehensive model. Research to-date suggests that other important characteristics of effective medication management programs include:

- Direct, frequent, and regular interventions by pharmacists;
- Timely and easy access by pharmacist to patient’s data;
- Consistent documentation of the interventions and monitoring of patient progress toward clinical goals during medical appointments;
- Providing reimbursement for pharmacist, physician, or other health care professional providing medication management, rather than just the amount of drugs dispensed; and
- Eligibility determined independently of the patient’s annual prescription drug costs.\(^{62}\)

Medication Management in Policy

The Medicare beneficiaries that may most benefit from comprehensive medication management services are those at high risk and need for Part A (hospital) and Part B (provider services). Part D only targets patients with high Part D medication spend, not those with high rates of admissions or clinical visits. One change to the program, suggested by McInnis, would be offering comprehensive medication management services that focus on clinical outcomes for patients and providing payment for these services under Part B, which potentially could save millions of dollars in cost avoidance. Focusing on comprehensive medication management in the clinical setting, in collabora-
What Works in Care Coordination? Activities to Reduce Spending in Medicare Fee-for-Service

Table 1: Major Drug Therapy Problems Identified

<table>
<thead>
<tr>
<th>General Drug Issue</th>
<th>Drug Therapy Problem Identified</th>
<th>Number of Instances</th>
<th>Percentage out of Total Drug Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indication</td>
<td>Unnecessary Drug Therapy</td>
<td>122</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Needs Additional Drug Therapy</td>
<td>2580</td>
<td>40%</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>More Effective Drug Available</td>
<td>144</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Dosage Too Low</td>
<td>1112</td>
<td>17%</td>
</tr>
<tr>
<td>Safety</td>
<td>Adverse Drug Reaction</td>
<td>743</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Dosage Too High</td>
<td>420</td>
<td>7%</td>
</tr>
<tr>
<td>Compliance</td>
<td>Noncompliance</td>
<td>1344</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>6466</td>
<td></td>
</tr>
</tbody>
</table>

The percentages for the three most common drug therapy problems identified in this data collection are in bold. This table is from a presentation at AcademyHealth’s Annual Research Meeting in June 2012 by Terry McInnis, MD, MPH, President of Blue Thorn Inc.

Evaluations of care coordination interventions and demonstrations suggest that success depends on:

- Targeting the appropriate sub-set of beneficiaries to receive the intervention;
- Providing the necessary tools to implement care coordination;
- Encouraging the beneficiaries to practice self-care and management;
- Keeping intervention costs low; and
- Providing support or a method to sustain the intervention.

Characteristics of Medicare FFS’s structure, however, make the implementation of care coordination approaches difficult. The financial incentives reward providers for the volume of services, such as tests and procedures, rather than coordinating patients’ care to realize better value through improved health outcomes. In addition, successful care coordination requires a well-supported primary care system, but the primary care workforce serving Medicare beneficiaries is increasingly insufficient to meet this need.

Finally, replicating interventions that prove successful in the controlled environment of a research study or demonstration project can be difficult. Conditions vary greatly among different care settings, patient populations, and health care providers, thus requiring flexibility to adapt such successes for differing real-world settings.

The care coordination examples discussed in this brief are among a few that have, in fact, proven successful or promising for Medicare. In addition to replicating existing evidence of the effectiveness of these approaches to improve care and reduce Medicare spending, new evidence is needed to confirm these care coordination strategies as appropriate for the Medicare FFS program. However, some of the aspects of the program may require restructuring in order to encourage health care professionals to participate in the coordination activities. The Medicare Payment Advisory Commission (MedPAC) recommends supporting care coordination by adding...
The Affordable Care Act actually includes provisions to financially incentivize care coordination activities, such as value-based payments, pay-for-performance structures, and reduced payments to hospitals with high readmission rates. Integrated delivery systems, including interdisciplinary care teams, patient-centered medical homes, and accountable care organizations, are another main component of the ACA.74 Such integrated delivery systems may serve to improve and support care coordination activities across provider and settings. A 2012 survey of hospitals’ readiness to participate in accountable care organizations (ACOs) suggests improved care coordination and safe care transitions for those hospitals implementing ACOs.75 The Center for Medicare and Medicaid Innovation (CMMI) also is conducting demonstrations of care coordination models in Medicare settings, and in May 2012, their Innovation Challenge program awarded numerous grants to support innovative methods for improving care delivery and reducing costs, especially for individuals with chronic diseases.

Research findings from these delivery innovations and care coordination demonstrations have the potential to strengthen the evidence base for understanding how best to implement care coordination activities to reduce Medicare spending and improve health outcomes. Furthermore, the provisions included in the Affordable Care Act and other reforms can help make the benefits of these activities available to a greater number of providers and patients. By providing financial incentives for improved care quality and funding for integrated delivery systems, these reforms may encourage health care providers and institutions to participate in care coordination activities. The transitional care interventions and comprehensive medication manage-

<table>
<thead>
<tr>
<th>The Reform</th>
<th>Provision</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerating the Transition from</td>
<td>Hospital Readmissions</td>
<td>On October 1, 2012, Medicare will begin reducing payments to hospitals with high readmission rates.</td>
</tr>
<tr>
<td>Fee-For-Service Payment</td>
<td>Separate Value-Based Payments</td>
<td>Beginning in fiscal year 2013, hospitals meeting or exceeding the performance standards determined by the Department of Health and Human Services (HHS) will be eligible for monetary incentives of 1 percent of total payments, rising to 2 percent by 2017.</td>
</tr>
<tr>
<td>Creating Virtually Integrated</td>
<td>Affiliated Providers</td>
<td>Health reform provisions support the creation of integrated delivery systems in which providers are affiliated with each other in coordinating care but do not work for a single, overarching organization.</td>
</tr>
<tr>
<td>Delivery Systems</td>
<td>Coordination of Care</td>
<td>A program in the ACA provides grants or contracts for care coordination services provided by community health teams that work with primary care practices to integrate clinical and community preventive and health promotion services and offer health coaching and support for medication management.</td>
</tr>
<tr>
<td></td>
<td>Additional Payment Incentives</td>
<td>The reform law includes a payment incentive for primary care teams to work with chronically ill Medicare beneficiaries at home and the community-based transitions program, which targets Medicare beneficiaries at risk for hospital readmission or complication.</td>
</tr>
<tr>
<td></td>
<td>Accountable Care Organizations (ACOs)</td>
<td>The shared-savings program promotes ACOs in Medicare and Medicaid.</td>
</tr>
<tr>
<td>Spanning the Prevention Continuum</td>
<td>Prevention and Public Health Fund</td>
<td>The $15 billion prevention and public health fund supports community-based health promotion and prevention research, such as screenings.</td>
</tr>
<tr>
<td></td>
<td>Targeting Pre-Medicare Ages</td>
<td>Pilot programs targeting the pre-elderly aim to reduce Medicare spending by improving the health profiles of entering Medicare beneficiaries.</td>
</tr>
<tr>
<td></td>
<td>No Cost Sharing for Preventive</td>
<td>A personalized prevention benefit for Medicare beneficiaries covers an annual wellness visit, health risk assessment, and personal care plan, with no cost sharing.</td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td></td>
</tr>
</tbody>
</table>

Information in the table taken from “The Foundation that Health Reform Lays for Improved Payment, Care Coordination, and Prevention,” an analysis and commentary written by Kenneth E. Thorpe and Lydia L. Ogden.
ment approaches discussed in this brief are especially promising for implementation and sustainability in real-world settings, as evidenced by the resulting reductions in hospital readmissions and the improvements in clinical outcomes. The needs of patients with multiple chronic conditions, who account for two-thirds of Medicare expenditures, underscore the need for effective and replicable approaches to coordinating and improving care.  

About the Author

Veronica Thomas is a research assistant at AcademyHealth.

About AcademyHealth

AcademyHealth is a leading national organization serving the fields of health services and policy research and the professionals who produce and use this important work. Together with our members, we offer programs and services that support the development and use of rigorous, relevant and timely evidence to increase the quality, accessibility, and value of health care, to reduce disparities, and to improve health. A trusted broker of information, AcademyHealth brings stakeholders together to address the current and future needs of an evolving health system, inform health policy, and translate evidence into action. For additional publications and resources, visit www.academyhealth.org.

Endnotes

7 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).
11 Ibid.
13 Ibid.
15 Ibid.
18 PACE is an optional benefit focusing on the elderly enrolled in Medicare and Medicaid, but is only available in states that offer PACE under Medicaid. The program allows elderly patients to continue living at home by offering comprehensive medical and social services by a team of health care professionals who evaluate the patient's needs and goals, develop the care plan, and coordinate all services which are incorporated into a cohesive health care plan. For more information: http://www.medicare.gov/nursing/alternatives/pace.asp.
19 Medicare Advantage plans are additional health plan options for those eligible for original Medicare (Parts A and B), which are offered by private companies approved by Medicare. A Medicare Advantage plan covers hospital insurance (Part A) and medical insurance (Part B), and sometimes supplemental coverage, such as hearing or dental coverage. For more information: http://www.medicare.gov/navigation/medicare-basics/medicare-benefits/part-c.aspx.
23 Ibid.
25 Ibid.
26 A medical home model is a delivery model that includes the following principles: a holistic, patient-centered perspective; one personal physician directing the other layers and settings of care; comprehensive and coordinated care across settings and providers; optimal access to care; and a systems-based approach to patient safety and care quality (see http://pcnh.ahrq.gov/portal/server.pt/community/pcnh_home/http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home). The chronic care delivery model primarily utilizes community resources, self-management, decision support, and clinical information systems to support the disease management of chronically ill patients (see http://www.medpac.gov/documents/Jul12_EntireReport.pdf, page 38).
27 Ibid.
What Works in Care Coordination? Activities to Reduce Spending in Medicare Fee-for-Service

32 Coleman EA, professor of medicine and director, Division of Health Care Policy and Research, University of Colorado School of Medicine. Coaching patients to effectively participate in meeting their care coordination needs: the Care Transitions Intervention (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


34 Coleman EA, professor of medicine and director, Division of Health Care Policy and Research, University of Colorado School of Medicine. Coaching patients to effectively participate in meeting their care coordination needs: the Care Transitions Intervention (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).

35 Ibid.


39 Model fidelity refers to the degree to which a model can be replicated in real world settings and can accommodate real world characteristics and challenges. Accessibility in the public domain refers to free access to a model or tool by the general public; this accessibility is often created by providing the model or tool on a public website.

40 Coleman EA, professor of medicine and director, Division of Health Care Policy and Research, University of Colorado School of Medicine. Coaching patients to effectively participate in meeting their care coordination needs: the Care Transitions Intervention (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


45 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


49 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


52 Ramalho de Oliveira D, Brummel AR, Miller DB. Medication therapy management: 10 years of experience in a large integrated health care system. Journ Managed Care Pharm. 2010 Apr;16(3):185-195.


54 Eligible enrollees originally had to be taking two to fifteen drugs, but now must take between two and eight drugs, and the dollar threshold for drug payments (Rucker NL pg. 3).

55 Seven of the ten largest national stand-alone plans in 2012 require the enrollee to take the maximum threshold of eight drugs in order to be eligible for MTM programs (Rucker NL pg. 3).


58 A convenience sample is drawn from readily available data rather than in a manner designed to be statistically representative.

59 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


61 Ibid.


66 The PCPCC is a learning collaborative focusing on the relationship of strong primary care and a medical home model. The group advocates the Joint Principles of a patient-centered medical home, which were developed by the American Academy of Pediatrics, the American Association of Family Physicians, the American College of Physicians, and the Administration on Aging (PCPCC website). The PCPCC Resource Guide for Integrating Comprehensive Medication Management to Optimize Patient Outcomes is found at http://www.pcpcc.net/files/medmanagement.pdf

67 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).

68 Ibid.

69 McInnis T, President, Blue Thorn, Inc. Medication Management: Impacts on Outcomes and Health Care Costs (slide presentation at AcademyHealth's Annual Research Meeting, Orlando, FL, 24 June 2012).


73. Ibid.

