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The Potential Savings from Enhanced Chronic Care Management Policies

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Introduction

Focusing on improving the quality of care for adults and children with chronic illnesses and coordinating care across a continuum of settings, including long-term care, has the potential to improve health and quality of life as well as address long-term cost trends. In the current payment and delivery system, however, care is too often fragmented, and financial incentives pose barriers rather than facilitate better teamwork, an emphasis on health, and more effective and efficient use of resources. This paper lays out a range of federal and coordinated federal-state policies that have the potential to spur more patient-centered chronic care while addressing cost concerns. We first describe the populations at risk and associated costs, followed by the rationale for new polices, and then describe a set of policies aimed at improving outcomes and reducing costs. We estimate the potential savings nationally and to federal, state, and private payers if such policies are successfully implemented.

Chronic Care: High Costs and Missed Opportunities

A disproportionate share of health spending in the United States is attributed to people with multiple chronic health conditions. The total cost of dual eligibles, non-dual disabled, other Medicare beneficiaries with five or more chronic conditions, and privately insured with five or more chronic conditions amounted to $634.7 billion in 2010, or 30 percent of personal health care spending ($2.1 trillion in 2010).[1] Of this, $407.4 billion is spent by the federal government for Medicare and for Medicaid matching payments. Due to the complexity of chronic disease among older and disabled populations, these groups account for over half of all Medicare and nearly 60 percent of Medicaid spending (table 1).

As illustrated in the table 1 summary of spending by payer-population groups, Medicare and Medicaid include several distinct high-risk population groups. The 9 million people who are dually eligible for Medicare and Medicaid are especially likely to have multiple chronic conditions, which has ramifications not only for their health care and overall health spending, but also for federal and state budgets. We estimate that the cost in 2010 for Medicare/Medicaid dual eligibles was $304.5 billion (about 14 percent of U.S. personal health care spending),[2] $164.2 billion for Medicare and $140.3 billion for Medicaid. Including the federal share of Medicaid spending for those dually eligible, total federal spending for dual eligibles amounts to an estimated $244.2 billion. As illustrated in table 1, dual eligibles with long-term care spending account for the vast majority of this spending, reflecting the fact that these beneficiaries are highly likely to have multiple chronic conditions.

There are also a large number of disabled individuals in the Medicaid program who are not dual eligibles. Their expenditures totaled an estimated $116.5 billion in 2010—with spending about equally split between those with and without long-term care spending. Of this total, an estimated $66.4 billion would be federal.

Similarly, there are 2.3 million Medicare beneficiaries who are not dual eligibles and who have five or more chronic conditions. Medicare spending for these beneficiaries is estimated to be $96.8 billion in 2010, with an additional $48.5 billion spent by private insurance and out-of-pocket for this population.

Finally, there are large numbers of individuals with private coverage with five or more chronic conditions. We estimate that employer spending for these high-risk individuals is more than $68 billion a year, with about $27 billion spent in firms with 100 employees or more, where the firms are most likely to invest in chronic care management programs. An additional $27 billion is spent in firms with fewer than 100 workers, and $14.5 billion is spent on those with employer coverage, but unknown firm size. With the introduction of insurance exchanges in 2014, many of these individuals could gain access to insurers that develop and offer care management programs.

Complex and Often Poorly Coordinated Care

Independent of their coverage, the chronically ill often receive care from multiple clinicians across multiple sites of care, with complex medication regimens. Care often spans community-based primary care, hospital, and

Table 1: Baseline Annual Spending for Disabled and Chronically Ill Populations, 2010 (in billions)

	Total	Federal	State	Private
Duals – Medicare	**$164.2**	**$164.2**		
With long-term care	$124.4	$124.4		
No long-term care	$39.8	$39.8		
Duals – Medicaid	**$140.3**	**$80.0**	$60.3	
With long-term care	$122.7	$69.9	$52.8	
No long-term care	$17.6	$10.0	$7.6	
Non-duals – Medicaid, disabled	**$116.5**	**$66.4**	**$50.1**	
With long-term care	$58.8	$33.5	$25.3	
No long-term care	$57.8	$32.9	$24.9	
Non-duals –Medicare, 5+ conditions	**$145.3**	**$96.8**		**$48.5**
Medicare expenditures	$96.8	$96.8		
Private expenditures	$48.5			$48.5
Employer coverage	**$68.4**			**$68.4**
Private expenditures – large firms	$27.0			$27.0
Private expenditures – small firms	$26.9			$26.9
Private expenditures – unknown size	$14.5			$14.5
Total spending on disabled and chronically ill	**$634.7**	**$407.4**	**$110.4**	**$116.9**
Total personal health spending	**$2,132.8**	**$763.5**	**$186.7**	**$1,182.6**
% on disabled and chronically ill	**29.8%**	**53.4%**	**59.1%**	**9.9%**

Source: Urban Institute estimates drawn from the Medicaid Statistical Information System, the Medicare Current Beneficiary Survey, the Medicaid Expenditures Panel Survey, Congressional Budget Office projections, and Centers for Medicare and Medicaid Services (CMS) Office of the Actuary projections.

Notes: Total personal health spending excludes other public spending; federal and state spending estimates are based on the average Federal Medical Assistance Percentage and do not reflect enhanced federal funding in 2010. Private expenditures include private health insurance and out-of-pocket spending. Some duals with no long-term care spending are neither disabled nor chronically ill, but our data do not allow us to exclude these individuals or their spending. Thus, our estimates may somewhat overstate the spending on the disabled and chronically ill.

long-term care, including support at home. The coordination of care between Medicaid and Medicare for acute, subacute, and long-term care can be inefficient and is frequently duplicative. Failure to coordinate care well and ensure appropriate care too often puts the health and safety of frail elderly or disabled individuals at risk, as well as raising costs of care. Coordination of Medicare and Medicaid policies across a continuum of care that spans acute, subacute, and long-term care is especially needed, and is an important part of any long-term cost containment strategy. But other Medicare beneficiaries with multiple chronic conditions and Medicaid-only disabled individuals would also benefit from better care management. Here, the issue is one of developing successful models, not coordination among programs.

The policy options described below draw on evidence from recent studies of the efficacy of team-based care and integrated care systems to improve chronic care outcomes. Some of the more recent studies indicate the potential for improving outcomes and care experiences while yielding net savings. This can be achieved when care is provided by innovative care teams operating within redesigned care systems that provide timely information and payment support, with accountability for outcomes. Shared attributes of innovations that are yielding improved health and care experiences with lower costs include targeting care to those most in need; fostering tightly knit teams of physicians and nurses/aides working together to provide and coordinate care across a continuum that includes long-term and home-based care; enabling multiple points of access including after hours; engaging patients and their families to teach self-management skills; and providing care teams with access to timely information on emergency room visits, as well as hospital and nursing home admissions.

The set of policy options employ a combination of provider and patient incentives to foster rapid development and spread of enhanced capacity to deliver effective and efficient care for those with chronic illness and complex conditions. The policies build on reforms enacted in the ACA calling for the secretary of Health and Human Services to publish and track outcomes for chronic disease to provide benchmarks for improvement. In particular, the policies build on enacted reforms that would strengthen primary care through patient-centered chronic care management programs, more bundled payments for acute care that follow patients post-discharge, and incentives to develop more care systems that are held accountable and valued for being more accountable for health outcomes, experiences, and costs.

These policies would initially focus on Medicare and/or Medicaid beneficiaries with chronic conditions and limitations in their activities of daily living (ADLs) and others who have complex and costly conditions. Any Medicare and Medicaid initiatives would benefit from participation of private insurers in providing coherent incentives in support of effective patient-centered chronic care. The high cost of chronic illness facing employers provides strong incentives for private insurers to develop effective programs.

The Potential for Change: Background

An emerging array of studies indicate that payment and care system changes that rely on teams, including nurses and primary care physicians, and engage and support patients and their families have the potential to improve chronic care outcomes and patient experiences and lower annual costs of care for these populations.[3] These studies further indicate that short and longer-term returns are likely to be greatest in care systems where teams have strong financial incentives, are supported by robust information systems, and have access to new technologies that support home-based care.[4]

Studies of efforts to coordinate care and manage chronic disease further indicate that care is more effective when provided through physicians and teams rather than third-party disease management programs. In contrast to more recent studies from teams and more integrated care systems, the early history of efforts to improve disease and chronic care management in the traditional fee-for-service world with discrete interventions—including separate, top-down disease management coordinators—has not been promising.[5] The most prominent example is an evaluation of the Medicare Coordinated Care Demonstration, which found only 3 of 15 programs were effective in reducing hospitalization and costs after four years of operation.[6] There have been some successful interventions in experimental situations, but incorporating and sustaining discrete interventions, such as teaching chronic care patients self-management skills, into fee-for-service payment and delivery systems designed for acute care has been challenging. Scaling successful initiatives into statewide or national delivery models has also proved difficult, largely because the incentives in traditional fee-for-service environments do not reward efficiency. Many of the early demonstration efforts with the lowest yield essentially added a level of patient monitoring on top of the existing fee-for-service acute/long-term care system, with no change in the underlying incentives or the structure of the ambulatory and inpatient health care delivery settings.

Although demonstration programs to date have shown mixed results, they have produced useful insights, and several of the strategies tested have indicated that positive results are possible. One such approach is to emphasize transitional care and community resource interventions, including primary care access and after-hours care, designed to reduce hospital emergency room use, length of stay, and readmissions, and to prevent complications leading to hospital admissions altogether. Strategies that encourage close interactions between community and practice-based nurses with primary care physicians and patients have been particularly effective, as have models that use and embed trained nurses and other clinicians working with primary care physicians in the care management of patients, including mostly homebound patients with limitations in ADLs. The emerging evidence from chronic care management models that have used these mechanisms has shown significant reductions in emergency room visits, hospital days, skilled nursing facility days, and home health episodes. Recent studies have also found net cost reductions over time compared to projected trends, as well as improved outcomes and patient and provider experiences. The following section provides a brief summary of recent research.

Promising Recent Evidence

The following initiatives have shown cost savings as well as improved quality and outcomes for high-cost chronically ill and disabled populations, including those dually eligible for Medicare and Medicaid. Most rely on transformation of primary care into medical homes and incorporate Wagner's chronic care model, which embeds primary care in a support care system and the community.[7] The more integrated systems have developed information systems that span ambulatory and hospital care, and increasingly extend to long-term care.

The Johns Hopkins Guided Care model, which provides specially trained registered nurses to primary care practices to help with management of patients whose chronic care diagnoses suggest that they will be high users of care in the upcoming year, seems successful.[8] This approach combines care management with support for patient self-management and caregivers. The preliminary findings found double-digit reductions in hospital days, skilled nursing facility days, emergency room visits, and home health episodes (no changes were statistically significant).[9] A more recent study of Guided Care found that patients experienced 30 percent fewer home health care episodes, 21 percent fewer hospital readmissions, and 16 percent fewer skilled nursing home days; only the reductions in home health expenditures were statistically significant, however, possibly because of sample size. In one site (Kaiser Permanente) reductions in skilled nursing facility days and admissions were statistically significant; the number of hospital readmissions within 30 days was also significant at the 10 percent level. This suggests that integrated systems may be better able to achieve cost savings.[10]

The Geisinger Health System, an integrated delivery system in Pennsylvania, developed a model that focused on Medicare beneficiaries, emphasizing coordination of care provided by primary care providers, including nurse care coordinators, electronic health records, and performance incentives. It found statistically significant reductions in hospital admissions and estimated annual savings of 7 percent, twice the additional cost of the primary care intervention.[11]

The Intermountain Health Care Primary Care Medical Home model also focused on primary care-based coordination for the higher risk elderly. It used registered nurse care managers to provide and coordinate care within primary care practices, and electronic health records to support chronic care and care coordination.

The two-year evaluation found a 10 percent reduction in total hospitalizations relative to a control group, and even greater savings for those with complex chronic illnesses. It found a net reduction in total cost of $640 per patient per year ($1,640 among those with the highest risks).[12]

Massachusetts General Hospital participated in a three-year demonstration project to improve care and coordination of Medicare services for 2,500 high-cost beneficiaries. Care managers were integrated into primary care practices and worked with physicians to educate patients and providers and provide care and counseling. The team care approach, including extensive use of nurses in new roles, facilitated communication during transitions, effective use of electronic health records, and coordination of care across providers and sites of care. Improved care resulted in a 20 percent reduction in hospital admissions and a 25 percent reduction in emergency department visits as well as lower mortality rates (16 percent compared to 20 percent for the control group). The evaluation found 7 percent annual savings among enrolled patients after accounting for intervention costs.[13]

Interventions that incorporate enhanced discharge planning, heart failure education, and coordination of aftercare services have been found to reduce hospital readmissions. Naylor and colleagues studied the use of advanced practice nurses who met with patients in the hospital and provided counseling on use of prescription drugs, self-care, and symptom recognition, and coordinated care among providers.[14] Coleman and colleagues also used advanced practice nurses as care coordinators and targeted hospital patients with a range of chronic conditions.[15] Both interventions have demonstrated the effectiveness of this kind of intervention using randomized controlled trials at a number of different hospitals. Naylor and colleagues found 34 percent fewer hospital readmissions per patient and 39 percent lower average total costs. Coleman found 26 percent lower readmission rates and 19 percent lower hospital costs.

Interventions that enable patients to self-manage symptoms or problems, engage in activities that maintain function and reduce health decline, participate in diagnostic and treatment choices, and collaborate with their providers were studied by both Lorig and Wheeler. Results from randomized controlled trials have demonstrated that such interventions significantly reduce hospitalizations and costs over a period of 6 to 21 months. Lorig's study showed that treatment subjects had one-third fewer hospital stays and 50 percent fewer hospital days than controls over six months.[16] Wheeler showed that over a 21-month period following the intervention's completion, the treatment group experienced 39 percent fewer inpatient days and 43 percent lower inpatient costs than controls.[17]

Another program, Geriatric Resources for Assessment and Care of Elders (GRACE), focused on low-income seniors with multiple chronic conditions. The program used advanced practice nurses and conducted an in-home assessment, used electronic medical records, and coordinated with pharmacists, mental health, home health, and community-based home and patient geriatric services. A randomized controlled trial found that the intervention reduced emergency room visits but not hospital admission rates. For patients with the highest risk of hospitalization, emergency room visits and hospital admission rates were lower in the second year of the intervention.[18]

Randall Brown, using evidence from Medicare demonstration programs, finds that there are certain common characteristics to the successful demonstrations: targeting interventions to those most likely to benefit, in-person contact, access to timely information on hospital admissions and emergency room visits, close interaction between care coordinators and primary care physicians, and emphasis on teaching self-management skills. In three successful programs with these characteristics, hospitalizations were reduced by 17 to 24 percent and total Medicare costs by 10 to 20 percent.[19]

The Lewin Group synthesized the results from a number of studies of disabled individuals enrolled in Medicaid managed care plans.[20] These included the Star + Plus program in Texas that provided integrated primary, acute, and long-term care services to the Supplemental Security Income (SSI) population in Houston, and Arizona's Managed Care Program. Considerable savings were achieved in each case. The Lewin Group also found considerable savings in the long-term care component of the Star + Plus program and in Arizona's Long Term Care System. The former produced evidence of reduced avoidable inpatient care by 22 percent, outpatient care by 15 percent, emergency room visits by 38 percent, and long-term care expenditures by 10 percent compared to the fee-for-service model.[21] The Arizona program reports major reductions in nursing home admissions.[22]

There is little research on programs that provide integrated care, including acute, long-term care and home/community-based services that are designed to achieve savings for managed care for populations in need of long-term care services. United Healthcare established a program named Evercare that uses nurse practitioners to coordinate care directly in nursing homes. Nurses develop and implement a care plan for each individual, targeting extremely frail nursing home residents. Evercare is paid a fixed capitated amount for each nursing home resident covered. The work of the nurse practitioners is intended to supplement, not supplant, that of the resident's primary care physician, who continues to be paid on a fee-for-service basis. The evidence shows that this type of care reduces hospitalizations and emergency room use by 50 percent as compared to control groups.[23]

Another program, INTERACT II, was a collaborative quality improvement project in which nursing home staff identified and documented changes in the status of residents. The goal was to manage conditions to avoid hospitalizations and, to the extent possible, to handle patients in the nursing home itself. Further, it developed palliative care plans as an alternative to hospitalization at the end of life. The intervention showed a 17 percent reduction in hospital admissions.[24]

Massachusetts developed a program called Senior Care Options that pools Medicare and Medicaid funds and provides a full range of acute, behavioral health and community-based long-term care services. The program reportedly reduced nursing home admissions by 8.7 percent relative to the control group. [25]

Payment Reforms Needed to Spur Improved Chronic Care Health Systems

Payment reform is essential to provide incentives and support for innovative care models across a continuum of care. This includes arrangements that offer bonuses based on performance (reductions in avoidable emergency room and hospital use and complications), special monthly per-patient payments to primary care practices with the capacity to manage chronically ill or disabled patients, and shared savings arrangements that allow group practices with the capacity to provide better chronic care to vulnerable populations the possibility of sharing in the savings from the reduced emergency room visits and hospitalizations.

While payment arrangements are important in supporting health care delivery reform, they are not sufficient by themselves to engender those changes. Changes in payment methods and incentives need to be tied to strategic efforts to redesign care systems in support of more patient-centered, team-based care that spans a care continuum. Based on more successful efforts to transform care and improve chronic care, such care systems need to be supported by information and communication systems that facilitate timely access and provide decision support. To improve care and resource use, new payment arrangements must encourage and support the development of teams, networks, and integrated care system relationships. Timely information about patient outcomes and experiences is also necessary in order to hold providers accountable for the care they provide.

For dual eligibles, lack of coordination between Medicare and Medicaid policies creates opportunities and incentives to shift costs between the programs in both directions, because no one is accountable for overall cost and outcomes of care. Medicare pays for acute care physician and hospital services and post-acute care nursing home and home health services, and for many, prescription drugs are covered separately under Medicare Part D. Medicaid, meanwhile, pays for cost sharing associated with Medicare services, and long-term care benefits, including long-term custodial nursing facility and home health care. That the two programs cover different—and often overlapping—parts of the health care continuum creates opportunities for gaming, inefficient care, and poor quality that can put vulnerable elderly and disabled patients at high risk and waste resources.

For example, if during the course of a Medicaid-financed nursing home stay, a dually eligible resident's health declines, requiring a hospital admission, Medicare pays for the hospital-covered service and then pays a higher rate (Medicare rate for post-acute care) to the nursing home when the resident returns. Moreover, Medicaid often pays nursing homes for the empty bed until the patient returns.[26] This incentive exists even if the nursing home could adequately care for the patient. In the process, the patient experiences a potentially avoidable hospitalization, possibly compromising his or her health, and Medicare incurs unnecessary costs. Unfortunately, many other comparable scenarios play out between Medicare and Medicaid in caring for dual eligibles. Better coordination and aligning financial incentives for providers between the two programs are essential.

Most of the savings from a chronic care management initiative would likely be in acute care. The research literature suggests that successful programs reduce hospitalizations or rehospitalizations, emergency room care, and duplication of services, and manage drug utilization.[27] Successful programs over time also reduce use of specialists, particularly where specialists serve as consultants and are available by phone or e-mail, not just visits.

If substantial savings on dual eligibles are to be achieved for Medicaid as well, it will be necessary to include long-term care in efforts to improve care management. The hopes for reducing the long-term care costs of the institutionalized probably depend on the ability to move some to community-based care settings. There is also a population that resides in the community that uses extensive long-term care services as well as acute care services. Unfortunately, there are relatively few integrated health systems, physician-hospital organizations, or independent practice associations that focus on care across the entire continuum and are willing to bear risk for long-term care services. Further, setting rates for these complex populations is difficult. Thus, new forms of payment arrangements and accountable care systems or team networks will be necessary to address the needs of this population.

In the remainder of this paper we focus primarily on what we refer to as chronic care management programs; they share many but not all the characteristics of patient-centered medical homes. We assume the chronic care management programs would build on the successful models reviewed above. This would include all of the insights that derive from the more successful care system redesigns. These include targeting interventions to those most likely to benefit (not too sick, not too

healthy), in-person contact between care coordinators and patients, access to timely information on hospitalizations and emergency room visits, close interaction between care coordinators and primary care physicians, and emphasis on teaching self-management skills.[28] They would also incorporate the payment reforms and financial incentives described above.

Medicare and Medicaid – Who should have the lead responsibility for improving chronic care and reducing costs for dual eligibles?

While part of the problem is that two separate programs bear responsibility for services used by dual eligibles, part of the solution lies in figuring out who should have the lead responsibility for managing care. It is difficult to see how both programs can jointly bear management and operational responsibility; the lead role needs to be with either the federal government or the states or with a partnership in which each stands to gain. There seem to be at least three options:

1) States could develop their own managed care plans or chronic care management models for chronically ill or disabled patients. They would get a Medicare capitated payment for Medicare acute care services. States could keep a share of the savings from lowering Medicare acute care costs. The problem with this model is that most of the savings are likely to be Medicare-financed acute care services. If states were responsible for operating these programs, Medicare would receive only some of the savings from reductions in the acute care. In a sense, Medicare would be contracting out the management of care of Medicare patients and paying states essentially a "fee" for this management. This could be a viable model only if the "fee" were low enough and the savings large enough; in other words, the amount retained by a state should not be greater than if Medicare contracted elsewhere.

2) A second approach could build upon and greatly strengthen Medicare's Special Needs Plans (SNPs) for dual eligibles. SNPs are now required to contract with states; states could contract with the same SNPs to manage some or all Medicaid services. This would mean states contracting with SNPs for Medicare cost sharing, Medicaid acute care services, and possibly long-term care services as well. Medicare could also develop chronic care management models independently of the SNP programs. States would receive most of the savings from lower long-term care costs, with Medicare getting the remainder. The problem with this model is in developing the capacity to manage long-term care as well as acute services; new and broader care management programs would be needed.

3) Medicare could develop chronic care management programs or use SNPs to manage just acute care services. This would mean enrolling individuals living at home, at assisted living facilities, or in nursing homes in primary care medical homes. There would be no effort by Medicare to control the cost of Medicaid long-term care services. This would avoid the need for coordination across programs but would pose some risk for states that Medicare would shift costs to states. States would benefit from lower acute care spending. States could continue to develop programs to reduce long-term care spending on their own.

Our view is that some combination of options (2) and (3) is most appropriate, with perhaps some opportunity for option (1) in some states—those with exceptional programs. The reason the federal government and Medicare should take the lead is that they have by far the most money at stake and, as we show later, will gain the overwhelming share of the savings if programs are successful. A heavy reliance on option (1) seems unlikely to be successful because the financial incentives do not align with responsibilities; that is, states have a relatively limited financial stake.

Medicare will also clearly need to take the lead for chronically ill beneficiaries who are not eligible for Medicaid. And the federal government has a strong interest in the success of state Medicaid programs for chronically ill or disabled beneficiaries who are not eligible for Medicare, since federal funds finance more than half the costs of Medicaid. Thus, there is a need for a new federal-state partnership and mix of responsibilities with a strategic focus on the potential to improve care as well as reduce costs by stimulating and supporting more improved health care delivery systems.

Policy Options

Looking across successful interventions and payment policy choices or tools currently available to Medicare and Medicaid, several options offer the potential for supporting the spread of innovative care arrangements and more effective chronic care management. The policies start with a Medicare initiative and spread to Medicaid for non-dual populations, as well as include private insurers after exchanges open in 2014. Rather than a series of separate options, we envision this as a set of coordinated policies that could be tailored and matched to different provider arrangements and teams.

- For dual eligibles and other chronically ill Medicare beneficiaries, Medicare would introduce new payment options for chronic care management programs. The option would pay providers an amount equal to about 2 percent of the expected costs of medical services. This would be about $30 per patient per month for patients with five or more chronic conditions and about $60 for those long-term care users who are dual eligibles. Medicaid would do the same for the non-dual disabled. Payments would be higher for those with institutional and noninstitutional long-term care needs and lower for others. These extra payments would support care teams; e-mail, phone, and face-to-face time with patients; coordination of care; and

information systems. In addition, there would be opportunities for bonuses based on meeting or surpassing performance targets related to avoidable utilization (i.e., emergency room use and ambulatory-care sensitive hospitalizations).

- Dually eligible beneficiaries and other chronically ill Medicare beneficiaries living at home would be encouraged to designate a primary care practice to manage their chronic illness or disabilities. They could receive enhanced personal care services and perhaps other benefits as an incentive to designate a chronic care medical home. Medicaid programs would be allowed to vary the scope of services depending on whether or not the beneficiary designated a primary care team with the capacity to serve as a "health home." Similarly, Medicare premiums could be reduced for non-duals to encourage participation. The goal would be to have two-thirds of dual-eligible beneficiaries living in the community and at least half of the other high-risk chronically ill associated with a medical home practice. Enrollment would be targeted to beneficiaries most likely to benefit from improved care and care management, avoiding the most seriously ill as well as the healthiest.

- For dually eligible beneficiaries residing in a nursing home, assisted living facility, or other institution, Medicare would assign a nurse practitioner as the case manager, with responsibilities for working in cooperation with the resident's primary care physicians and the institution's medical director. The nurse practitioner's role, similar to their functions in the Evercare model, would be to provide more intensive primary care services in the institution to reduce the reliance on unnecessary emergency room visits and avoidable hospitalizations. Rather than having to enroll the resident in a separate special needs plan, traditional Medicare would arrange for the enhanced primary care services directly—dually eligible institutionalized beneficiaries could receive the supplemental services without having to enroll in Medicare Advantage. The goal would be to have two-thirds of all institutionalized dual-eligible residents assigned to a nurse practitioner. The nurses and teams would work closely with primary care and other physicians providing care beyond long-term care.

- If Medicare had the principal responsibility for managing acute care services, Medicaid's role would be to efficiently manage community-based long-term care services and to reduce institutionalization. To support this, states could be given an enhanced match for personal care and home health services. This would align with new ACA provisions for an enhanced match for Medicaid health home coordination.

- In addition to receiving normal lump-sum monthly payments, chronic care management teams would receive a higher monthly payment for providing primary care services to low-income patients with complex medical conditions that require additional time and resources. These disparity adjustments have been used in other countries. One of the conditions of receiving a fixed monthly payment would be to ensure around-the-clock availability of access to the primary care medical home.

- Chronic care management models would also be developed for rural areas. These may be more difficult and require greater incentives for both patients and physicians (or other qualified primary care professionals, consistent with state law). A practical approach would be to build on the North Carolina and Vermont approaches to establishing community care networks in local communities to provide medical home supports that primary care clinicians cannot provide directly in their own practices.[29] In essence, this approach would create "virtual" medical homes in which physician practices would be expected to provide enhanced access and be responsible for medical problems, while the community-based professionals—nurses, social workers, educators, and others—would provide care coordination, patient self-management education, and other services complementary to clinician-provided medical care. Separate payments would be made to each.

- Larger employers would be encouraged, though not required, to adopt similar models. To the extent that these models demonstrate savings for Medicare and Medicaid, it is expected that substantial shares of private insurers would adopt similar models with the same kinds of incentives for their enrollees with five or more chronic conditions. These models would also be available to small firms through insurance plans offered in exchanges.

- For residents of nursing homes as well as facilities for developmentally disabled or the mentally ill, whether they are dual eligibles or non-duals, bundled payments to hospitals would hold hospitals accountable for post-acute nursing home care and for readmissions within 30 days. For longer-term nursing home patients, Medicare would provide enhanced payments for homes meeting high standards of care with lower rates of hospitalizations for preventable conditions. State Medicaid programs would be required to adhere to the same standards, with financial penalties for homes with a history of frequent admissions and poor care. Long-term care patients, whether they receive institutional or noninstitutional long-term care services, would generally be enrolled in chronic care management programs, which would receive monthly payments for care management. They would also benefit from meeting savings targets through reduced utilization, specialist care, prescription drugs, emergency room visits, and hospitalizations.

The cost estimates assume the combined set of coordinated policies would accelerate the spread of care systems with the capacity to provide improved care management for the chronically ill and disabled. This includes Medicare taking the lead by promoting primary care teams and care management and partnering with states to align incentives for beneficiaries and the two programs.

Cost Savings Estimates

To illustrate the potential cost savings if the policies succeed in spreading innovative care systems, we examined total, federal, and state spending over the next decade. In the estimates we provide below, we assume that policies would be phased in beginning in 2013 and fully implemented by 2016. We assume the chronic care management model with financial incentives would reach large percentages of dual eligibles and Medicaid-only disabled populations that are long-term care users. These estimates assume new care models would enroll smaller percentages of the dual eligibles who are not long-term care users as well as the Medicare and privately insured chronically ill. Specifically, we assume that two-thirds of long-term care users, half of chronically ill Medicare and non-dual disabled Medicaid populations who are not long-term care users, and one-quarter of the privately insured in large and small firms would eventually be enrolled in chronic care management models. We assume less than full participation both because it would be a voluntary program and because the programs would target those most likely to benefit.

Based on the successful models described above and assuming a robust implementation effort, we estimate that chronic care management programs could save 8 percent on the institutionalized populations who enroll. Netting out 3 percent for the management fee/payment, higher primary care fees, and lower premiums, savings would be 5 percent on this population compared to projected spending levels. We estimate savings of an additional 2 percent for dual eligibles from better coordination between Medicare and Medicaid and elimination of incentives to shift costs between the two programs. For non-duals and the privately insured, we simply assume savings, net of management and incentives, of 5 percent. Although evidence is considerably variable, mounting evidence from relatively new models that incorporate teams across a continuum of care indicates that chronic care management can achieve savings in this range as initiatives mature.

Table 2: Chronic Care Management Savings (In billions, savings phased in over 2014–2016)

	2014	2015	2016	2017	2018	2019
Duals – Any Long-term Care Spending	$4.89	$10.38	$16.51	$17.52	$18.59	$19.73
Duals – No Long-term Care Spending	$0.86	$1.83	$2.92	$3.11	$3.31	$3.52
Non-duals (Disabled) – Any Long-term Care Spending	$0.83	$1.76	$2.79	$2.96	$3.14	$3.33
Non-duals (Disabled) – No Long-term Care Spending	$0.61	$1.29	$2.05	$2.17	$2.30	$2.44
Medicare (5+ Chronic Conditions)	$1.45	$3.13	$4.96	$5.28	$5.64	$6.04
Privately Insured (Small and Large Firms)	$0.34	$0.73	$1.15	$1.20	$1.25	$1.33
Baseline Spending Chronic Care Populations	$790.42	$842.13	$891.11	$944.80	$1,002.74	$1,066.15
Post-reform Spending Chronic Care Populations	$781.44	$823.02	$860.73	$912.56	$968.50	$1,029.77
Total Change in Spending	($8.98)	($19.11)	($30.38)	($32.24)	($34.24)	($36.39)
Change in spending as a % of Baseline Chronic Care Population Spending	-1.14%	-2.27%	-3.41%	-3.41%	-3.41%	-3.41%
Change in spending as a % of Total Personal Health Care Spending	-0.33%	-0.65%	-0.96%	-0.95%	-0.95%	-0.94%

	2020	2021	2022	2023	Total (2014-2023)
Duals – Any Long-term Care Spending	$20.94	$22.22	$23.59	$25.04	$179.42
Duals – No Long-term Care Spending	$3.75	$3.99	$4.25	$4.52	$32.05
Non-duals (Disabled) – Any Long-term Care Spending	$3.53	$3.74	$3.96	$4.20	$30.22
Non-duals (Disabled) – No Long-term Care Spending	$2.59	$2.74	$2.91	$3.08	$22.18
Medicare (5+ Chronic Conditions)	$6.46	$6.91	$7.40	$7.92	$55.19
Privately Insured (Small and Large Firms)	$1.41	$1.50	$1.59	$1.69	$12.19
Baseline Spending Chronic Care Populations	$1,133.63	$1,205.43	$1,281.83	$1,363.14	$10,521.38
Post-reform Spending Chronic Care Populations	$1,094.96	$1,164.33	$1,238.14	$1,316.70	$10,190.12
Total Change in Spending	($38.67)	($41.10)	($43.69)	($46.44)	($331.26)
Change in spending as a % of Baseline Chronic Care Population Spending	-3.41%	-3.41%	-3.41%	-3.41%	-3.15%
Change in spending as a % of Total Personal Health Care Spending	-0.94%	-0.93%	-0.92%	-0.92%	-0.87%

Source: Authors' calculations based on assumptions described in text.

Savings of course could also be lower. For example, it may be difficult to replicate the successful programs on a broad scale, and in many programs the savings could be less and the costs of the intervention higher; this is particularly true if programs are not well targeted. The estimates below should be regarded as the likely upper bound, with a lower bound being no net savings.

Results

To estimate the potential impact of chronic care management policies on costs, we first established baseline total spending on the disabled, those with multiple chronic conditions, and patients dually eligible for Medicare and Medicaid. (For details, see appendix A.) We then projected spending to 2023 using Centers for Medicare and Medicaid Services (CMS) and Congressional Budget Office (CBO) projected rates of growth.

As illustrated in table 2, the baseline projections indicate that total personal spending on the disabled and chronically ill would grow from an estimated $790.4 billion in 2014 to $1,363.1 billion by 2023—nearly doubling. Spending over the 10-year period would be more than $10.5 trillion. Assuming the combined policies would be phased in fairly rapidly, chronic care management could yield savings of about 0.9 percent of national health spending, or $331.3 billion over the 10-year period. We assume that the policy would be phased in, reaping only one-third of savings in 2014, two-thirds in 2015, and full savings thereafter. Clearly, if the set of policies took longer to fully implement, savings would be lower, though the reduction of close to 1 percent when fully phased in would still hold.

The bulk of the savings would come from reductions in spending on dual eligibles with institutional or noninstitutional long-term care spending. Over the 2014 to 2023 period, the policy would save $179.4 billion on this population (table 3). This would come in part from the efficiencies introduced by a chronic care management model for two-thirds of the institutionalized and noninstitutionalized dual-eligible population of long-term care users. Another $32.1 billion would be saved from enrolling half of the dual eligibles who are not long-term care users and saving 7 percent per enrollee. For the non-dual disabled with any long-term care spending, we would obtain another $30.2 billion in savings. This assumes 5 percent savings from the chronic care management program and that two-thirds of the non-dual disabled long-term care users would be enrolled in a chronic care management program. Enrolling half of the non-dual disabled with no long-term care spending and half of Medicare non-dual beneficiaries with five or more chronic conditions would yield savings of $22.2 billion and $55.2 billion, respectively. Enrolling one-quarter of the privately insured with five or more chronic conditions working in firms of all sizes would yield $12.2 billion in savings.

Overall, savings would amount to $331.3 billion over the 10-year period. Savings would be 3.2 percent of spending on the chronically ill and almost 1.0 percent of total national health spending. A rough estimate is that the federal government would reap 76 percent of the savings, or $252.4 billion over the 10-year period. The federal government not only saves on Medicare spending but also reaps approximately 57 percent of Medicaid savings. States would save another $48.4 billion (table 3).

Summary and Conclusion

Entitlement reform is now at the heart of the nation's debate over the federal deficit. The National Commission on Fiscal Responsibility and Reform (Bowles-Simpson) as well as the Debt Reduction Task Force (Rivlin-Domenici) called for, among other measures, reductions in Medicare and Medicaid spending. The initial response to the Obama 2012 budget has focused on the absence of attention to

Table 3: Savings to Federal and State Governments (in billions), 2014–2023

	Total	Federal	State	Private
Duals				
Any Long-term Care Spending	$179.4	$156.3	$23.1	--
No Long-term Care Spending	$32.1	$29.3	$2.8	--
Non-duals				
Any Long-term Care Spending	$30.2	$17.2	$13.0	--
No Long-term Care Spending	$22.2	$12.6	$9.5	
Chronically Ill				
Medicare	$55.2	$37.0	--	$18.2
Private	$12.2	--	--	$12.2
Total	**$331.3**	**$252.4**	**$48.4**	**$30.4**

Note: The distribution of savings between federal and state governments is based on the following assumptions: (1) 70 percent of the savings on dual long-term care beneficiaries is Medicare, the remainder is Medicaid, and 57 percent is federal share; (2) 80 percent of savings on dual beneficiaries with no long-term care is Medicare and the remainder is Medicaid, where 57 percent of Medicaid is federal; (3) savings on the non-duals is split where 57 percent is federal and 43 percent is state savings; (4) 67 percent of the Medicare chronically ill savings is federal, the remainder is private. These assumptions reflect the fact that most savings from successful chronic care management programs are on acute care services and that these services are paid for primarily by Medicare.

Medicare and Medicaid as well as Social Security spending. Any serious effort to reduce the rate of growth in Medicare and Medicaid spending must address the problem of the high cost of health care for the chronically ill and disabled. This includes Medicare and Medicaid dual eligibles, but also the chronically ill Medicare beneficiaries and Medicaid disabled who are not dual eligibles. We estimate that the nation spent $634.7 billion in 2010 on the disabled and chronically ill, almost one-third of personal health spending in the United States, and that these costs will nearly double over the next 10 years if CBO and CMS actuaries projections are correct.

The evidence from many recent studies suggests that substantial savings are possible through more patient-centered, coordinated team care that has strong financial incentives and spans a continuum of care needs and engages patients and their families. Most of these savings would come from reduced hospitalizations or hospital readmissions, lower spending on drugs, reduced emergency room care, reduced use of specialized care, and fewer skilled nursing home days. Developing models to better manage the care of these populations would take a major effort on the part of the federal government through payment incentives that support and stimulate care systems that are more accountable for the outcomes and cost of care. To work well, such initiatives would have to be coordinated with Medicaid, with coherent efforts targeting similar goals. Private employers and chronically ill patients insured privately would also stand to gain as care systems evolved and spread. We estimate that considerable savings would be possible, on the order of over $300 billion over the 2014–2023 period or a reduction of almost 1 percent of national health spending over 10 years.

A major policy choice will be how much to rely on Medicare versus Medicaid to lead this effort. Clearly, Medicare or Medicaid would be responsible for those who participate in only one of the two programs. But about half of the spending on the chronically ill is on dual eligibles. In this paper we argue that Medicare should take the lead in developing primary care medical homes and expanding special needs programs for dual eligibles. Medicare has a greater fiscal stake—most of the savings would come from acute care, and Medicare pays for most acute care services for dual eligibles. Medicaid has some strong state-managed care programs for chronically ill and disabled populations, but that is not true in a large number of states. Medicare has the financial incentive to develop and sustain uniform and effective policies in all states. Successful Medicare policies will provide some savings to Medicaid programs, because Medicaid pays cost sharing for acute care services. Relying on care management models to reduce long-term care spending is a worthy goal but an ambitious undertaking. States should continue to develop models that reduce institutionalization and better coordinate community-based long-term care, but this should not delay efforts to develop medical home and patient-centered care management models that reduce acute care spending in both programs, but primarily Medicare.

Overall, we conclude that there is a rich opportunity for Medicare to lead in the effort to manage the care of dual eligibles and other chronically ill populations, though we recognize it is a formidable challenge. As the program that services the nation's elderly and disabled, Medicare is centrally positioned to take the lead responsibility for working with providers to develop chronic care management programs. The federal government accounts for the lion's share of the spending today and therefore stands to reap most of the savings from such programs. Partnerships with states will be essential to align incentives and support for care teams, especially for those in need of long-term care. Medicare can also join state Medicaid programs that have initiated exceptional programs, but should not depend on all programs being initiated by states or spread by states without Medicare oversight. Moving toward an approach that aligns the two programs with an eye toward total spending—not Medicare or Medicaid alone—has the potential for significant gains in care for very vulnerable populations and lowering the cost trajectory for both programs.

At the same time, it will be critical for Medicaid and states to lead in developing policies that improve care for chronically ill children and families and that reduce institutionalization by providing options in the community, including well-coordinated home and community long-term care support services. The ACA created a new Federal Coordinated Health Care Office to spur creative initiatives specifically focused on those dually eligible for Medicare and Medicaid. Fifteen states are scheduled to receive planning strategy grants to develop new ways to improve outcomes for these 9 million vulnerable beneficiaries.[30] Medicare, as the major payer for care of dual eligibles, needs to stake out a leadership role to ensure that these initiatives result in care system innovations with benefits that accrue to all Medicare and Medicaid chronically ill beneficiaries, as well as cost savings (primarily to the federal government).

In an era of innovation, the emerging evidence speaks to the potential of creative teams that provide patient-centered care to reduce annual costs while improving outcomes and care experiences. There is an opportunity to move forward to build on the array of new federal support for Medicaid and authority for Medicare to innovate that is part of the Affordable Care Act legislation. Combining policies with a strategic focus offers the opportunity to catalyze action. Strategic payment and information support that align incentives have the potential for rapid spread if Medicare is able to partner with care systems and state Medicaid initiatives. At the same time, the private sector stands to benefit to the extent that private insurers join with public payers to spur further innovation and improved local health care systems.

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