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Best Bets for Reducing Medicare Costs for Dual Eligible Beneficiaries: Assessing the Evidence

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EXECUTIVE SUMMARY

In response to concerns about the federal deficit and the national debt, some policymakers and researchers have put forward strategies to reduce the growth in Medicare and Medicaid spending by improving the coordination of care for those who are dually eligible for Medicare and Medicaid (known as “dual eligible” beneficiaries). More specifically, some have suggested that large savings can be achieved by improving the coordination of care either by enrolling dual eligible beneficiaries into managed care plans or by paying care coordination programs to integrate and coordinate Medicare and Medicaid services from providers who are reimbursed by Medicare and Medicaid on a fee-for-service (FFS) basis, with estimated savings of up to \$20 billion per year.¹ The Centers for Medicare and Medicaid Services (CMS) is undertaking several initiatives designed to improve the coordination of care for the dual-eligible population in an effort to improve the quality of patient care and reduce spending over time. Several recent debt reduction efforts, including the National Commission on Fiscal Responsibility and Reform and the Domenici/Rivlin Task Force, have recommended proposals to rein in spending for the dual-eligible population, among other options to constrain the growth in federal spending.²

Policymakers are interested in finding ways to improve the delivery of care and reduce spending for beneficiaries because these beneficiaries are among the sickest, frailest and highest cost segments of the Medicare and Medicaid programs. Dual-eligible beneficiaries comprise 21 percent of the Medicare population, but 31 percent of total Medicare costs, and 15 percent of the Medicaid population, accounting for 39 percent of total Medicaid costs (Jacobson et al. 2012; Young et al. 2012). As a group, they are similar in the sense that they tend to have low incomes and modest assets, but otherwise, they are quite heterogeneous, with a wide range of health problems and needs, requiring care from multiple types of providers in a wide range of settings. Most, 61 percent, are seniors ages 65 and older who are entitled to Medicare by virtue of their age, and receive Medicaid

¹ For example, see America’s Health Insurance Plans (AHIP). “Working Paper: A Preliminary Comparison of Utilization Measures Among Diabetes and Heart Disease Patients in Eight Regional Medicare Advantage Plans and Medicare Fee-for-Service in the Same Service Areas.” September 2009. See also UnitedHealth, Center for Health Reform and Modernization. “US Deficit Reduction: The Medicare and Medicaid Modernization Opportunity.” Working paper. October 2010. Also see The Lewin Group. “Increasing Use of the Capitated Model for Dual Eligibles: Cost Savings Estimates and Public Policy Opportunities.” November 2008. Additional information about these studies and an analysis of the methodology used to derive savings projections are available from the authors of this report.

² The National Commission on Fiscal Responsibility and Reform, chaired by Erskine Bowles and former Senator Alan Simpson, recommended giving Medicaid full responsibility for providing health coverage to dual eligibles, with Medicare continuing to pay its share of the costs, and requiring that dual eligibles be enrolled in Medicaid managed care programs. The Commission estimates federal savings of \$1 billion in 2015, and \$12 billion for 2015 through 2020. The Debt Reduction Task Force, chaired by Dr. Alice Rivlin and former Senator Peter Domenici, recommended eliminating barriers for states to enroll dual eligibles in full-risk Medicaid managed care plans, with federal savings estimated at \$5 billion from 2012 through 2018.

as a supplement; the remaining 39 percent are adults under the age 65 who are covered by Medicare because of a permanent disability that qualifies them for Social Security Disability Insurance (SSDI) payments. Dual-eligible beneficiaries have significantly higher rates of serious health conditions, physical impairments, and cognitive limitations than others on Medicare. These problems lead to higher rates of hospitalizations and emergency room use than experienced by other Medicare beneficiaries, along with a greater need for long-term services and supports (LTSS). More than one-third of the dual-eligible population requires a nursing home level of care, about half of whom receive this care in a nursing home, and the other half receive Medicaid-covered personal assistance services in their home.

With growing interest in efforts to improve care and reduce spending for the dual-eligible population, this paper reviews the literature to assess the evidence on past efforts that were designed to achieve savings through improved care management and coordination for dual eligible beneficiaries. The paper begins with an overview of the dual-eligible population. We then examine nine studies that evaluate existing interventions and pilots targeting dual-eligible beneficiaries, and then review results from another nine studies that evaluate care management programs for high-risk Medicare beneficiaries. Although these care management programs targeting high-risk beneficiaries are not restricted to dual-eligible beneficiaries, evidence obtained from them may be applicable for achieving savings for dual eligibles with similar risk profiles.

Of note, this paper does not speculate about the potential of initiatives just getting underway to achieve savings for dual eligibles. CMS has established a new Medicare-Medicaid Coordination Office, which is dedicated to working with agencies, states and stakeholders to align and coordinate benefits for dual eligibles, and to develop new care models for dual eligibles and improve the way dual eligibles receive health care. CMS is pursuing a varied approach to both improve the quality of care and achieve savings for the dual-eligible population, including, for example, a pilot initiative that will allow states to test capitated, managed care or FFS-based care coordination approaches and other projects to reduce avoidable hospitalizations among dual eligible beneficiaries living in nursing facilities. Further, this study does not assess the evidence for potential savings to Medicaid, through reduced need for nursing home admissions or other means. Instead, this study takes a hard look at the evidence from the literature and various programs and demonstrations to assess the feasibility of achieving large savings to inform ongoing efforts at the federal and state level that focus on the dual-eligible population.

The Evidence Suggests That Large Savings Could be Difficult to Achieve

A review of nine reports and studies that evaluate interventions that mainly target the dual-eligible population, both capitated managed care and FFS care coordination approaches, identified several programs that were successful in reducing hospitalizations; however, only two interventions may have reduced net costs to Medicare or Medicaid.

- Several of the capitated plans evaluated, including the Program of All-Inclusive Care for the Elderly (PACE), Minnesota Senior Health Options, the Wisconsin Partnership Program, and Evercare, reduced hospitalizations but did not show evidence of savings because the capitated payments were set higher than the amount Medicare would have spent for the dual eligibles under the traditional FFS program.
- Two capitated managed care plans, the Commonwealth Care Alliance's Disability Care Program and the SCAN Health Plan, appear to have reduced hospitalizations *and* spending (Medicaid spending, for the Disability Care Program; Medicare spending, for SCAN), although both may have limited generalizability. The SCAN Health Plan findings were based solely on the plan's experience in an 11-county area in southern California with very high Medicare FFS costs, and the Disability Care Program is relatively small and focuses on under-65 beneficiaries who are confined to wheelchairs, rather than a broader population.

- The characteristics of these plans and the populations they served varied widely, with some serving only individuals with substantial long term care needs, such as people with quadriplegia (Disability Care Program), in nursing homes (Evercare), or needing constant supervision (PACE), while the others served people with a wider range of needs for long term care services. The programs tailored their interventions to the population they served, and PACE, Disability Care Program and Evercare provided more intensive interventions to their restricted, qualifying populations than the other programs.

Our review of nine studies of FFS-based care coordination interventions that target high-risk Medicare beneficiaries (not limited to dual eligibles) also produced mixed results. Taken together, the studies suggest some potential to reduce the need for expensive services, while confirming the challenges involved in achieving savings.

- Some interventions did not significantly reduce the hospitalization rates. Others were successful in reducing hospitalization rates, but not costs. A few programs, however, were successful in reducing hospitalization rates and net costs. The Massachusetts General Hospital and Physicians Organization Care Management Program, which provided care coordination for high-risk beneficiaries, was the only one of six programs that had consistently lower expenditures than the comparison group during the first three years of the Medicare High-Cost Care Management demonstration. The Medicare Care Coordination Demonstration Project reduced hospitalizations for a subset of high risk patients in four of the 11 sites, and achieved net savings in one of the four sites for this high risk group for the whole 6-year follow-up period, and in another site for the 3 years following a major redesign of its intervention.
- One of the studies identified key program features that were present in successful programs: frequent in-person contact with patients, strong working relationships between coordinators and patients' physicians, strong patient education programs using motivational interviewing or other behavior change tools, medication management programs, transitional care interventions, and coordinators who acted as communication hubs. Program effects were found to be concentrated in the subset of patients at high risk of near-term hospitalization.

Modest Medicare Cost Savings, Along with Improvements in Care, May Be Achievable for Dually Eligible Beneficiaries, Using Different Models for Different Subgroups.

The evidence from all of the reviewed studies confirms the importance of establishing well-targeted interventions for specific subsets of the dually eligible population in order to reduce unnecessary hospitalizations and potentially achieve savings. Segmenting the dual-eligible population by the type of care needed and the setting in which it is delivered yields subgroups of dual eligibles for whom a particular type of intervention has been relatively successful, suggesting that savings are more likely with this sort of targeting. Nonetheless, there remains substantial heterogeneity even within these subgroups; thus, the proposed interventions will still need to be tailored to the individual's needs.

- For dual eligibles with full Medicaid benefits who are receiving LTSS in the community (19 percent of full duals), successful programs such as the Disability Care Program or PACE will generate net Medicare savings if their capitation rate is below local Medicare FFS costs, but they will be viable only if they can retain their effectiveness and cover their own costs at this lower capitation rate.
- For dual eligibles residing in nursing homes (17 percent), programs such as Evercare appear to have the strongest evidence of being able to reduce hospitalizations and control costs.
- For dual eligibles who live in the community and have multiple and/or severe chronic conditions, but do not need LTSS (about one-quarter of dual eligibles with full Medicaid benefits), FFS-based care coordination programs that are targeted to those who are at high risk of hospitalization and evince features of programs

that are associated with reduced hospitalizations (e.g., routine in-person care coordinator interactions with beneficiaries) may provide the best opportunity to generate net savings. Examples of such programs include the four found to reduce hospitalizations in the Medicare Care Coordination Demonstration Project, the GRACE program, and the Massachusetts General High-Cost Care Management Demonstration program.

- Finally, dual-eligible beneficiaries in relatively good health who have at most one chronic condition and do not need LTSS (about 38 percent of all full-benefit duals) may benefit from programs that help coordinate coverage across the Medicare and Medicaid programs, although there is little reason to suspect that such programs will achieve savings for their care.

Policy Implications

A careful review of the evidence thus far suggests that generating modest net Medicare savings and better outcomes for dually eligible beneficiaries is possible, but will require tailoring, targeting, and monitoring. Taken together, these studies provide strong evidence that care management might be effective at reducing costs for some subgroups of dual eligibles, such as those with severe chronic illnesses or at high risk for hospitalization. However, the estimates of potential net savings from these interventions are typically modest.

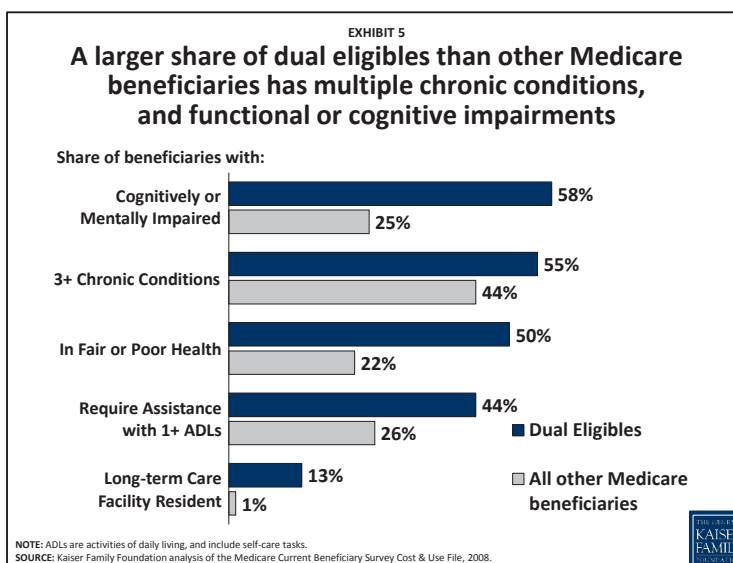
Smaller-scale care management programs, whether capitated managed care plans or FFS-based care coordination programs, with well-established local patient and provider relationships, may be better attuned to the needs of the individual dually eligible beneficiary and better able to generate net savings. Further, regardless of whether a capitated managed care or FFS-based care coordination approach is implemented, it is unclear if plans or care management providers will be willing to participate in the program (except in the geographic areas with the highest Medicare costs), if capitation payments or monthly care coordination fees from Medicare and Medicaid are set low enough to yield net Medicare savings. Additionally, to ensure real savings, a reliable, robust risk adjuster must be used to set these premiums or fees and minimize gaming behavior.

Over the next few years, the new pilot programs for dual-eligible beneficiaries should provide more specific information on whether care management providers are able to build successfully on proven interventions to generate savings for Medicare. In states implementing capitated managed care solutions, it will be instructive to see how capitation rates are set and how the programs are targeted. Once the pilots are up and running, it will be important to assess the extent to which qualified managed care plans are willing to participate if the rates are set at a level that will generate savings to Medicare, relative to FFS costs, and track whether enrollees have adequate access to high quality care. In states implementing FFS-based care management options, similar considerations will determine whether Medicare savings are ultimately achieved. For Medicare to achieve savings under the FFS-based care management approach, the following conditions must be met: payment rates for the services would need to be less than expected savings in Medicare Part A and Part B; care coordination providers would need to be willing and able to implement effective interventions at the lower rates; programs would need to focus on dual-eligible beneficiaries who are at high risk of hospitalizations and other high-cost Medicare covered services; and programs would need to find successful strategies to coordinate the more complex care needs of dual-eligible beneficiaries. It will be critical to develop strong research designs to learn from these programs, identify quickly the features that distinguish those programs that are successful from those that are not, and understand how the interventions and their successes vary with the characteristics of this diverse population. There is much to be gained by real improvements in the financing and delivery of care for this diverse and relatively high-need population.

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INTRODUCTION

Approximately nine million Americans are currently dually eligible for Medicare and Medicaid benefits, and of this group, roughly 7 million are eligible for full benefits under both programs. For these beneficiaries, Medicare provides basic health care services, including prescription drugs, while Medicaid fills in the gaps, helping to pay Medicare's premiums and cost-sharing requirements and services not covered by Medicare, such as nursing home and community-based long-term care. Although the dual-eligible population represents 21 percent of the Medicare population and 15 percent of the Medicaid population, it accounts for 31 percent of total Medicare expenditures and 39 percent of Medicaid expenditures (Jacobson et al. 2012; Young et al. 2012). Dual-eligible beneficiaries account for a relatively large amount of spending under both programs because they are more likely than other Medicare beneficiaries to have significant needs. Nearly 60 percent of all dual-eligible beneficiaries have a mental or cognitive problem, 55 percent have three or more chronic conditions, and 50 percent rate their health status as fair or poor. As a result of these conditions, dual eligibles often require extensive medical care, including frequent hospitalizations, emergency room (ER) visits, and long-term services and supports (LTSS).



Beneficiaries who are counted among the dual-eligible population live on modest incomes and limited resources, but are otherwise quite diverse in terms of needs and circumstances. The dual-eligible population includes, for example: frail, elderly duals residing in nursing homes; seniors and younger adults with disabilities who live in the community but require daily or weekly personal care assistance to live independently; beneficiaries with complex medical conditions that require substantial medical attention from multiple specialists, but do not need LTSS; young, adult duals with quadriplegia but otherwise quite healthy; war veterans or others with severe mental illness; middle-aged adults with heart failure, diabetes, and several other chronic conditions but no cognitive problems; and dual eligibles with chronic diseases as well as Alzheimer's or dementia. The diversity within the dual-eligible population poses significant challenges in designing programs to coordinate services across providers, and across both Medicare and Medicaid, particularly without funding to support coordinating activities.

Dual eligible beneficiaries receive services covered under both the Medicare and Medicaid programs – programs that developed independently with different eligibility pathways, benefits, appeals and grievance procedures. These differences can make it difficult for providers to coordinate services across the two programs, and create incentives for cost-shifting between programs. Because dual-eligible beneficiaries have significant, sometimes complex, needs and frailties, and often require a wide range of services, they are especially susceptible to receiving poorly coordinated care. Medicare and Medicaid fee-for-service (FFS) payments offer minimal financial incentives to encourage providers to coordinate care and few if any financial or organizational mechanisms to support coordination of care across the two programs. Many dual eligibles receive a variety of services—behavioral health and LTSS as well as medical care—from different providers, who have little financial incentive to communicate or coordinate care. Some dual-eligible beneficiaries suffer preventable conditions and complications that result in expensive hospitalizations and emergency room visits, and in some instances,

lead to poorer health outcomes. In 2005, 26 percent of the 2.7 million hospitalizations among dual eligibles, representing \$5.6 billion in expenditures, were considered potentially preventable (CMS, 2011).

With concerns about less than optimal care coordination, and evidence of costly and preventable hospitalizations and emergency room use, some suggest that shifting dual eligibles into care management programs, either capitated managed care programs or care coordination programs operating within the FFS sector, could result in better service coordination and generate large Medicare savings.

Policymakers have shown increasing interest in using care management programs to reduce health care expenditures and improve the quality of care for dual eligibles. The Centers for Medicare & Medicaid Services (CMS) recently opened the Medicare-Medicaid Coordination Office, which is dedicated to working with agencies, states and stakeholders to align and coordinate benefits for dual eligibles, and to develop new care models for dual eligibles and improve the way dual eligibles receive health care. Twenty-six states have submitted proposals to CMS to test new care management models for dual eligibles that aim to improve the coordination of the Medicare and Medicaid programs and/or achieve savings for Medicare and Medicaid. Several states project large Medicaid savings from enrolling their dually eligible beneficiaries in care management programs. The Medicare Payment Advisory Commission (MedPAC) recently examined payment methodologies for the Program of all Inclusive Care for the Elderly (PACE) and special needs plans for dual eligibles (D-SNPs), which will further add to the literature on dual eligibles. Both houses of Congress recently held hearings to better understand the dually eligible population and how to improve care (U.S. House of Representatives 2011; U.S. Senate 2011).

A number of studies have looked at the potential for care management programs to reduce expenditures for dual eligibles while maintaining or improving health outcomes for this particularly vulnerable population. Some of these studies evaluate care management programs that are already serving dual eligibles or other patients with chronic illnesses. A few other publications make large cost-saving projections, stating that taxpayer savings could reach hundreds of billions over the next decade, if certain approaches are adopted.

In this paper, we examine the literature to explore whether large Medicare savings are likely to be achieved by improving care management for dual eligibles. We do not address potential savings to Medicaid, through means such as reduced need for community-based LTSS or substitution of community-based LTSS for nursing home care. We begin by examining existing programs that have largely or exclusively targeted dual-eligible beneficiaries. We then turn to care management interventions that served high-risk Medicare beneficiary populations that include relatively few dual eligibles but nevertheless may provide insights for this purpose given the similarities with much of the dually eligible population.

MEDICARE SAVINGS PROJECTIONS FOR DUAL ELIGIBLES

In response to concerns about the federal deficit and the national debt, some policymakers and researchers have put forward strategies to reduce the growth in Medicare and Medicaid spending by improving the coordination of care for those who are dually eligible for Medicare and Medicaid. More specifically, some have suggested that large savings can be achieved by improving the coordination of care either by enrolling dual eligible beneficiaries into managed care plans or by paying care coordination programs to integrate and coordinate Medicare and Medicaid services from providers who are reimbursed by Medicare and Medicaid on a fee-for-service basis, with estimated savings of up to \$20 billion per year.³ The Centers for Medicare and

³ For example, see (1) America's Health Insurance Plans (AHIP). "Working Paper: A Preliminary Comparison of Utilization Measures Among Diabetes and Heart Disease Patients in Eight Regional Medicare Advantage Plans and Medicare Fee-for-Service in the Same Service Areas." September 2009.; (2) Kenneth Thorpe. "Estimated Federal Savings Associated with Care Coordination Models for

Medicaid Services (CMS) is undertaking several initiatives designed to improve the coordination of care for the dual-eligible population in an effort to improve the quality of patient care and reduce spending over time. Several recent debt reduction efforts, including the National Commission on Fiscal Responsibility and Reform and the Domenici/Rivlin Task Force, have recommended proposals to rein in spending for the dual-eligible population, among other options to constrain the growth in federal spending.⁴

In this first section, we review studies that focused on improving care for the dual-eligible population for evidence of potential savings. The following section reviews studies that focus more generally on high-need Medicare, again to assess the evidence for potential savings attributable to care coordination efforts. The paper concludes with a discussion of findings. Overall, we find some evidence to support the potential for modest Medicare savings, which should help to inform ongoing efforts to both improve care and reduce costs for this very vulnerable, high risk segment of the Medicare population.

EVALUATIONS OF INTERVENTIONS THAT LARGELY TARGET DUAL ELIGIBLES

In this section, we turn our attention to studies that evaluate existing or pilot interventions that purposefully target dual eligibles and other high-risk Medicare beneficiaries. These nine studies, unlike those studies projecting large national savings based on assumptions, analyze data based on the experiences of individual participants in implemented interventions to estimate the intervention's actual effects on costs. Many of these evaluations use rigorous methods, such as experimental designs or strong comparison group designs, to evaluate the effects of the program on spending, savings, and other outcomes. Many of these studies have also undergone a peer-review process. These studies therefore offer strong evidence that can be used to assess the likelihood of being able to reduce Medicare expenditures on dual eligibles without reducing the quality of care they receive.

There are seven care management programs that largely target dual eligibles for which there is some evidence of Medicare cost effects. These programs include PACE, earlier fully integrated programs for dual eligibles (Minnesota Senior Health Options program and the Wisconsin Partnership Program), two integrated programs for dual eligibles and non-dual eligibles with similar conditions (Disability Care Program operated by Commonwealth Care Alliance and the the Massachusetts Senior Care Option program), an integrated plan for Medicare beneficiaries with long-term conditions or disabilities (Evercare), a telephonic disease management intervention (LifeMasters), and the SCAN Health Plan managed care program. The nine studies (see Table 1) assessing these seven programs find little to no evidence of cost savings because the operational cost of the programs often were greater than the savings they achieved, and some studies suffer from poor methodology, which may either overestimate or underestimate the programs' effects.

Medicare-Medicaid Dual Eligibles." AHIP, September 2011; (3) UnitedHealth, Center for Health Reform and Modernization. "US Deficit Reduction: The Medicare and Medicaid Modernization Opportunity." Working paper. October 2010; and (4) The Lewin Group. "Increasing Use of the Capitated Model for Dual Eligibles: Cost Savings Estimates and Public Policy Opportunities." November 2008. Additional information about these studies and an analysis of the methodology they used to derive estimates of large-scale savings is available from the authors of this report.

⁴ The National Commission on Fiscal Responsibility and Reform, chaired by Erskin Bowles and former Senator Alan Simpson, recommended giving Medicaid full responsibility for providing health coverage to dual eligibles, with Medicare continuing to pay its share of the costs, and requiring that dual eligibles be enrolled in Medicaid managed care programs. The Commission estimates federal savings of \$1 billion in 2015, and \$12 billion for 2015 through 2020. The Debt Reduction Task Force, chaired by Dr. Alice Rivlin and former Senator Peter Domenici, recommended eliminating barriers for states to enroll dual eligibles in full-risk Medicaid managed care plans, with federal savings estimated at \$5 billion from 2012 through 2018.

Table 1. Evaluations of Interventions That Largely Target Dual Eligibles

Paper	Intervention/ Program Evaluated	Population	Study Methodology	Data	Finding
Avalere Health (2012) and Munevar and Drozd (2012)	Dual eligibles enrolled in SCAN Health Plan in 11 high cost southern California counties (managed care—Medicare only)	Dual eligibles beneficiaries living in the community	Quasi-experimental methods (propensity score matching)	2009–2010 SCAN and CMS claims data.	Hospitalizations 14 percent lower than FFS. Risk adjusted readmissions 25 percent below FFS. Medicare capitation rate below FFS cost, yielding savings.
Beauchamp et al. (2008)	PACE (managed care)	Frail Medicare (and Medicaid) beneficiaries living in the community or nursing homes	Quasi-experimental methods (propensity score matching)	Medicare claims and demographic data; Medicaid MSIS data	Program reduced hospitalizations by nearly 30 percent.
Esposito, et al. (2008); Stewart et al. (2010)	Lifemasters (FFS-based care coordination/ disease management)	Dual eligibles with congestive heart failure, diabetes, or coronary artery disease, in the community	Randomized controlled trial (RCT)	Medicare enrollment and January 2005–June 2006 claims data.	No effects on hospitalizations or Medicare expenditures. Net increase in costs.
Foster et al. (2007)	PACE (managed care)	Frail Medicare (and Medicaid) beneficiaries living in the community or nursing homes	Quasi-experimental methods (propensity score matching)	Medicare claims and demographic data; Medicaid MAX files; Medicare county rate books	Program did not affect mortality or reduce Medicare expenditures. Medicaid expenditures increased.
JEN Associates (2008)	SCO (managed care)	Dually eligible seniors in the community	Quasi-experimental methods (propensity score matching)	Medicare and Medicaid demographic and claims data; Minimum Data Set. Outcome and Assessment Information Set	Program participants less likely to enter a nursing home. No estimates of cost savings.

Paper	Intervention/ Program Evaluated	Population	Study Methodology	Data	Finding
Kane et al. (2002)	Evercare (managed care—Medicare only)	Long-stay nursing home patients	Quasi-experimental design	CMS administrative data; MDS. Other data sources	Lowered hospitalizations, increased acute services provided by nursing homes.
Kane and Honpak (2004)	MSHO and WPP (managed care)	WPP – seniors and nonelderly adults with disabilities living in the community MSHO – dually eligible seniors living in the community or nursing homes	Quasi-experimental methods	1998-2000 claims and encounter data; various data sources	Both reduced preventable hospital admissions. Neither program saved money compared to Medicare FFS.
Meyer (2011)	CCA (managed care)	Dually eligible seniors and nonelderly adults with disabilities in the community	Descriptive statistics	Internal CCA estimates	CCA lowered hospitalization rates and reduced expenditures.
UMass Medical School (2005)	DCP (managed care)	Nonelderly Medicaid beneficiaries with quadriplegia, in the community	Quasi-experimental methods (propensity score matching, five comparison groups)	Demographic and FY2002-2003 claims data from the Chronic Disease Payment System	For most comparisons, DCP had lower hospitalization rates and lower expenditures.

Note: Programs listed as managed care are capitated for both Medicare and Medicaid services, unless otherwise noted.

Although PACE is often cited as an effective intervention, the most recent evaluations of it suggest that it decreases hospitalizations but does not decrease Medicare expenditures for seniors with significant long-term care (LTC) needs. PACE was established as a permanent program under the Balanced Budget Act of 1997 and gives participating programs a capitated payment in return for bearing the Medicare and LTSS costs for enrolled dually eligible seniors living in the community who meet their state’s level-of-need criteria for institutional care (typically, impairment on two or more activities of daily living). PACE’s 82 programs, which operate in 29 states and typically have fewer than 500 enrollees each, provide team-based care and care coordination in adult day care settings. Beauchamp et al. (2008) and Foster et al. (2007) both evaluate PACE for CMS using a comparison group composed of matched Medicaid beneficiaries who were receiving home and community-based services and regression analysis to control for remaining pre-existing differences. Beauchamp et al. (2008) found that the program reduced hospitalizations by nearly 30 percent, but a companion study by Foster et al. (2007) found that the Medicare capitation rate yielded total expenditures under PACE that were very similar to what enrollees would have incurred had they been in Medicare FFS (Medicaid costs were substantially higher under PACE than what enrollees would have cost had they remained in Medicaid FFS). PACE-eligible seniors represent a costly subset of dual eligibles, and the program appears to effectively integrate acute care and long-term community supports. Yet the evaluation suggests that the established capitation rates for both Medicare and Medicaid have been set too high for this intensive program to generate net cost savings.

Kane and Homyak (2004) evaluated two early managed care plans that were responsible for the full range of acute and long-term support services for dual eligibles—Minnesota Senior Health Options (MSHO) and Wisconsin Partnership Program (WPP). MSHO is a managed care program offered currently throughout Minnesota and WPP was an adaptation of PACE initially at three urban sites and one rural site.⁵ At the time of the evaluation, both programs covered all Medicare and Medicaid services. MSHO and WPP reduced preventable hospitalizations by 23 percent, but did not reduce overall hospital admissions or emergency room visits. The analysis also found that MSHO’s capitated payments were higher than the combination of what Medicare costs would have been under FFS and capitated payments for Minnesota’s Prepaid Medical Assistance Program.⁶ Similarly, for WPP, expenditures for enrollees were higher than those for elderly enrollees in the comparison group. On the other hand, expenditures were lower than those for younger dual eligibles in the comparison group. No formal follow-up studies have been conducted on more recent data to assess whether the same conclusions apply to the current versions of these programs.

The Commonwealth Care Alliance (CCA) plan, which bears full risk for all Medicare and Medicaid benefits, has been in operation for more than 20 years in the Boston metropolitan area. The plan operates two programs: the Disability Care Program (DCP), which provides services to about 400 disabled individuals with functional quadriplegia, and Senior Care Options (SCO), a D-SNP that provides services to 3,700 seniors, 70 percent of whom are eligible for nursing home placement. Meyer (2011) reports unpublished CCA data showing that the DCP monthly cost per enrollee in 2008 was \$3,601, which was lower than the \$5,210 Medicaid FFS spent for a purportedly similar population. According to Meyer (2011), in 2007, the number of hospital days for SCO beneficiaries was 45 percent lower than that of a comparison group of dual eligibles. However, for neither estimate is information publicly available that allows us to assess the credibility of the comparison strategy or the estimates of cost savings and lower hospitalization rates. A 2005 University of Massachusetts Medical School report used claims data to compare health care utilization and expenditures for non-dually eligible DCP enrollees to that of five matched comparison groups. Baseline equivalency data suggest, however, that the comparison

⁵ Wisconsin’s Family Care and Partnership Program is the successor to WPP and currently operates in the state.

⁶ The MSHO program is still in existence; however, the related program that was focused on individuals with disabilities was discontinued when the payment formula was revised by dropping the survey-based frailty adjustment. The plan (and others) felt that the Hierarchical Chronic Conditions risk adjuster that was substituted for this adjuster failed to adjust adequately for the higher cost incurred for beneficiaries with cognitive impairments and behavioral health problems.

groups were composed of individuals with a different mix of diagnoses than DCP enrollees and therefore potentially very different health care needs. The study compares utilization rates for various health care services between the treatment group and each of the comparison groups and finds significantly lower hospitalization and preventable hospitalization rates for the treatment group in each of the five comparisons. Medicare plus Medicaid expenditures for the treatment group are high (\$3,186 per member per month), but 10 to 21 percent lower than those for four of the five comparison groups and comparable to (only 5 percent greater than) those for the fifth comparison group, which was composed of wheelchair users. However, the study's utilization and expenditure analysis does not control for diagnosis or any other factors that could be different between the treatment and comparison groups.⁷

The capitated Evercare model for elderly Medicare beneficiaries living in nursing homes was found to be successful at reducing the hospitalization rate for its enrollees. In addition to their standard Medicare services, Evercare enrollees receive other services from nurse practitioners. These nurse practitioners routinely monitor the enrollees' health and work to integrate and coordinate care. Kane et al. (2002) include findings from their evaluation of five American Evercare programs, which were capitated and responsible for all Medicare-covered services. The evaluation, which uses a quasi-experimental design, found that the hospitalization rate for Evercare enrollees was half that of a comparison group of Medicare FFS enrollees in nursing homes matched on date of admission. While the lower hospitalization rate was offset somewhat by increases in acute care services provided by the nursing homes, the study estimated that the reduced hospitalizations saved nearly \$2,000 per enrollee annually for Evercare. Evercare did not save money for the Medicare program compared to Medicare FFS, however, because the capitation payments to Evercare were too high. This model thus may have potential for saving money for the 17 percent of dual eligibles with full Medicaid coverage who are in nursing homes, if it can maintain its effectiveness at lower payment rates.⁸ However, because the study did not assess or control for differences between the two study groups, we have limited confidence in the hospitalization savings estimate.⁹

LifeMasters was a large-scale disease management program in Florida that was limited to dual eligibles with specific chronic illnesses. The LifeMasters program was the first CMS disease management/care coordination demonstration to be population-based, meaning that program savings were computed for all Medicare FFS dual eligibles who resided in the targeted Florida counties and met the eligibility criteria (treated for congestive heart failure, coronary artery disease, or diabetes over the previous year, and not receiving LTC or hospice care), rather than being limited to beneficiaries who chose to enroll in the study. Furthermore, the plan was at full financial risk for its fees; failure to hold total Medicare costs, including the monthly disease management fees, for the treatment group below the costs for the control group would result in a full or partial refunding of the fees paid, whereas any net savings would be split between LifeMasters and CMS. The roughly 52,000 eligible beneficiaries were randomly assigned to the treatment group, which was offered the program, or the control group, which was not. The telephonic intervention included patient assessment, care planning, nurse and patient-self monitoring, education, care coordination, and service arrangement. An evaluation by Esposito et al.

⁷ JEN Associates (2008) found that beneficiaries in the four Massachusetts SCO plans in 2004 were less likely than members of a FFS comparison group to enter a nursing home and were usually older at time of first nursing home utilization. The JEN study created its comparison group of FFS dual eligibles using propensity matching methods, but did not assess the baseline equivalency of the treatment and comparison groups. Thus, it is difficult to assess the credibility of the comparison. The study did not assess the effects on costs to Medicare or Medicaid; thus, it is not included in our review of the evidence.

⁸ This estimated proportion of duals in nursing homes is obtained from results generated from 2007 data by the Kaiser Commission on Medicaid and the Uninsured and the Urban Institute, contained in "Medicaid's Long-Term Care Users: Spending Patterns Across Institutional and Community-Based Settings," Washington, DC: Kaiser Family Foundation publication #7576-02, October 2011. According to this source, 1,206,800 dual eligibles with substantial long-term care use are predominantly institutional care users or use a mixture of institutional and long-term care. This represents about 17 percent of the roughly 7 million dual eligibles who have full Medicaid coverage (<http://www.kff.org/medicaid/upload/7576-02.pdf>).

⁹ Nonetheless, because of its perceived effectiveness, a number of states are including in their care integration demonstration proposals a component similar to Evercare for nursing home residents.

(2008) found that the program had no effects on hospitalizations or gross Medicare costs over the January 2005 to June 2006 study period, and therefore showed an increase in net costs, because there were no savings to cover the program fees charged (about \$100 per member per month). The findings were unchanged in a later analysis (Stewart, et al. 2010), even after the program was restricted to those enrollees for whom the program appeared to have the most promising results during the first three years of operation (i.e., those who resided in specific counties and had either congestive heart failure or both coronary artery disease and diabetes).

In a few areas where Medicare FFS costs are among the highest in the country (e.g., high cost counties in Florida and southern California), D-SNPs do appear to be generating Medicare savings relative to FFS. The SCAN plan, for example, receives capitation rates that are lower than FFS costs. A 2012 study by Avalere Health that evaluates the SCAN Health Plan's dually eligible population offers evidence that care management can improve outcomes and reduce costs for dual eligibles, at least in some areas. SCAN Health Plan is currently offering managed care plans in 11 Southern California counties and parts of Arizona. The Avalere study, which was commissioned by SCAN, used propensity score matching to create a risk-adjusted comparison group of dually eligible Medicare and Medicaid (MediCal) FFS beneficiaries. The comparison group was matched at baseline to dually eligible individuals who were already enrolled in SCAN. Unpublished study documents made available to us by Avalere, which supplement the published findings (Avalere, 2012 and Munevar and Drozd, 2012) show that the matched comparison group closely resembles the SCAN enrollees on most demographic characteristics and chronic conditions. One year after baseline, SCAN's dually eligible enrollees were hospitalized 14 percent less often than members of the FFS comparison group and readmitted 25 percent less often than members of the comparison group, after risk adjustment. Thus, the Avalere study concludes that had all California dual eligibles in FFS had (risk-adjusted) rates of hospitalizations and readmissions equal to what SCAN achieved for AHRQ's 12 Prevention Quality Indicator conditions, Medicare would have saved \$50 million per year. This is not the same as concluding that if these duals were all enrolled in SCAN that the same savings would accrue to Medicare, because SCAN has much higher administrative costs than FFS Medicare. Nonetheless, the finding that SCAN is able to reduce its enrollees' use of expensive hospitalizations relative to what they would have used in FFS in a high-cost market area is encouraging, and suggests that this effectiveness is what enables them to provide care for a capitation rate lower than FFS costs in this area.

Finally, though not a study that seeks to assess the effects of a specific intervention for dual eligibles on costs, Biles et al. (2012) examine Medicare Advantage D-SNPs and paint a discouraging picture of care management's own assessment of its ability to generate Medicare savings for that population. The study uses D-SNPs' own 2009 cost reports to show that their reported (and audited) costs for providing the basic Medicare benefits exceed average Medicare FFS expenditures for dual eligibles in the plans' market areas in three-fourths of the states.¹¹ In some states, the expenditure difference is extreme; for example, in Wisconsin, D-SNPs spend \$1,176 more per enrollee per year than the average Medicare FFS expenditures for similar beneficiaries.

In summary, several of these studies found that the programs achieved lower hospitalization rates but did not achieve net Medicare savings because the programs' operational costs were greater than the savings. Other studies had methodological limitations that may overestimate or underestimate the savings.

¹¹ In Florida, D-SNP costs are 79.8 percent of Medicare FFS. Ten percent of all D-SNP enrollees live in Florida, where the average Medicare costs are about 19 percent greater than the overall U.S. average.

EVALUATIONS OF INTERVENTIONS THAT TARGET HIGH-RISK MEDICARE BENEFICIARIES

As shown above, relatively few evaluated care management interventions largely or exclusively target dual eligibles and those that do provide little credible evidence of cost savings. Fortunately, several evaluations of care management programs targeting high-risk Medicare beneficiaries with chronic illnesses have implications for potential Medicare savings for dual eligibles, and these studies tend to be much stronger methodologically. Although not exactly the same, high-risk Medicare beneficiaries share several similarities with some of the more costly subgroups of dual eligibles. Consequently, programs that reduce costs for high-risk Medicare beneficiaries may also reduce costs for the dual eligibles who live in the community and are of similar health status.

The findings from these stronger studies targeting high-risk Medicare beneficiaries are quite mixed. Thus, to support an assessment not only of the possibility of achieving savings, but also of the likelihood of doing so, we have divided this evidence review into two sections—those showing no effects on hospitalizations or costs, and those showing favorable effects. All of these studies (see Table 2) are of FFS-based care coordination models; no studies of comparable quality were found for managed care interventions for this population.

Studies Showing Little or No Effects on Hospitalizations or Costs

Peikes et al. (2009) uses randomization at the patient level to evaluate 15 care coordination demonstration programs for Medicare beneficiaries with chronic illnesses. All 15 demonstration programs featured in the study used voluntary enrollment, targeted FFS Medicare beneficiaries with at least one chronic condition, and were paid a monthly fee by Medicare for the care coordination efforts. They bore no financial risk for enrollees' health care needs. Overall, 14 percent of enrollees in the demonstrations were dual eligibles, with proportions ranging from 0 to 28 percent. Nine of the programs excluded long-term nursing home residents. The intervention included patient education and monitoring. Over the 2002–2006 study period, only two programs reduced the hospitalization rate (by 17 and 19 percent). Three of the 15 programs reduced gross Medicare spending (from 9 to 14 percent), but none of them generated Medicare savings large enough to cover the intervention's cost.

Evaluations of the Guided Care model illustrate that even well-developed care integration programs for the chronically ill have difficulty improving health care outcomes or achieving cost savings. Guided Care was developed in 2001 by researchers at Johns Hopkins University and is centered on eight clinical processes to improve outcomes for chronically ill individuals who live in the community. An experimental design in which subgroups of physicians in practices with five or more physicians were randomly assigned to the treatment or control groups was used to evaluate the program. The study population included Medicare FFS, private health insurance, and TRICARE enrollees who were considered high-risk for health care utilization based on their Hierarchical Condition Categories (HCC) scores. Leff et al. (2009) evaluated the program eight months after implementation and reported a reduction in the hospitalization rate and a statistically insignificant, but favorable, estimate of cost savings. However, Boulton et al. (2011), who evaluated the program 20 months after implementation, did not find any effect on the hospitalization rate. Boulton et al. (2011) did not estimate cost savings, but net savings are virtually impossible to achieve without significant reductions in hospitalizations.

Table 2. Evaluations of Interventions That Target High-Risk (Mostly Non-Dually Eligible) Medicare Beneficiaries

Paper	Intervention/Program Evaluated	Population	Study Methodology	Data	Finding
Boult et al. (2011)	Guided Care model (coordinated care)	Medicare beneficiaries with high projected costs	Randomized controlled trial (RCT)	Claims data (various sources)	Follow-up to Leff et al. (2009). Found no effects on hospitalization.
Brown et al. (2012)	11 Care Coordination Demonstration programs: 6 year follow-up	Medicare beneficiaries with one or more chronic illnesses (criteria varied across programs)	RCT	Medicare claims	Reduced hospitalizations in 4 coordinated care sites for subgroup of high-risk patients. Only one program (HQP) reduced costs.
Counsell et al. (2007)	GRACE model (care coordination)	Patients predicted to be at high risk of hospitalization	RCT	Regional health information exchange; survey data.	Found reduction in hospitalizations for patients at high risk for hospitalization.
Counsell et al. (2009)	GRACE model (care coordination)	Patients at high risk of hospitalization	RCT	Regional health information exchange	Found similar costs between the treatment and control groups after two years. During the third year, costs were lower for high-risk patients.
Leff et al. (2009)	Guided Care model (coordinated care)	Medicare beneficiaries with chronic illnesses	RCT	Claims data (various sources)	Program appeared to reduce hospitalization rates. Possible evidence of cost savings.

Paper	Intervention/Program Evaluated	Population	Study Methodology	Data	Finding
McCall and Cromwell (2011)	Medicare Health Support program (care coordination/telephonic disease management)	Medicare beneficiaries with diabetes or heart failure	RCT (8 different pilot programs)	Medicare claims data	No program effects on hospital admissions, ER visits, or costs.
McCall et al. (2010)	Massachusetts General Hospital and Physicians Organization Care Management program (care coordination)	High cost Medicare beneficiaries	RCT	Data provided by ARC; Medicare enrollment and claims data; MDS	Program reduced expenditures by 12 percent during the first 3 years due to lower growth rates in hospitalizations and ER visits.
Nelson (2012); Bott et al. (2009)	34 care coordination/disease management and care coordination programs	Various; Medicare beneficiaries with chronic conditions	Mostly (31) RCTs	Various	Seven programs produced evidence of Medicare savings and 15 reported cost increases.
Peikes et al. (2012)	Washington University care coordination program, before and after mid-study redesign	Medicare beneficiaries primarily with congestive heart failure, coronary artery disease, and diabetes	RCT	Medicare claims	Reduced hospitals admissions, reduced net Medicare expenditures, including program fee.

In addition to the Medicare Coordinated Care Demonstration study (Peikes et al. 2009) cited above, CMS has conducted several other demonstrations of disease management and care coordination for Medicare beneficiaries with chronic illnesses. Bott et al. (2009) and CBO (Nelson 2012) both summarize the same six CMS studies that, when combined, evaluated 34 disease management programs.¹² The programs, nearly all of which were primarily or exclusively telephonic interventions, were rigorously evaluated—31 of the programs were evaluated with experimental designs. Just seven of the programs produced evidence of Medicare savings and 15 reported cost increases. According to Bott et al. (2009): “Medicare cost savings among the disease management demonstrations have not been near the levels projected by participating disease management organizations.” Nelson (2012) concurs with Bott et al. (2009) and states that, while there was considerable variation, very few of the programs had effects on hospitalization rates or Medicare expenditures.

The Medicare Health Supports program, implemented by eight different pilot programs, was very similar to the LifeMasters program in that it involved a large-scale commercial, telephonic disease management intervention, with each program’s performance calculated on the full population of eligible beneficiaries and with the plans bearing risk for their fees. The demonstration targeted beneficiaries in FFS who had been treated for congestive heart failure or diabetes in the previous year and had an HCC score that indicated their FFS costs were predicted to be at least 35 percent above the Medicare average for all beneficiaries. The disease management model employed “health coaches to target beneficiaries at immediate high-risk for adverse events.” McCall and Cromwell (2011) use an experimental design to evaluate Medicare Health Supports and find that the program produced no Medicare cost savings.

Studies Showing Some Promising Results

In contrast to the care management programs discussed above, a small body of evidence has emerged in the past few years suggesting that if care management programs are designed, implemented, and targeted in particular ways, they can substantially reduce hospitalizations for high-risk Medicare beneficiaries. The seven independent programs evaluated in the four studies reviewed below, while not targeted specifically to dual eligibles, cover target populations similar to dual eligibles with chronic conditions. However, most of these programs served relatively few beneficiaries who required LTSS. Thus, the findings suggest that the favorable effects observed might be replicable among the sizable subgroup of dual eligibles who had chronic illnesses but did not require LTSS (about one-quarter of dual eligibles).

The *Geriatric Resources for Assessment and Care of Elders (GRACE)* model is a team-oriented approach that originally targeted low-income seniors in Medicare FFS who had chronic conditions and high Medicare costs (the program is now being implemented with dual eligibles). The GRACE care coordinator teams, composed of a nurse and a social worker, are employed by large physician practices. The teams, which have frequent contact with patients and their primary care physicians, assess patients’ functioning and needs and arrange for any required services, including LTC services and supports. For dually eligible enrollees, the team members also work with the patient’s Medicaid case manager. Counsell et al. (2007) and Counsell et al. (2009) compared outcomes for volunteer GRACE enrollees in the Indianapolis, Indiana area using physicians as the unit of random assignment. Counsell et al. (2007) found no overall effects on hospitalizations during the first two years, but did find significant reductions in hospitalizations during the second year for a subgroup of patients at high risk of hospitalization. GRACE did, however, lower the average number of emergency room visits two years after random assignment for the entire treatment group. Counsell et al. (2009) reports that the overall cost of GRACE was similar between the treatment and control groups at the second-year comparison. During the third year of the intervention, GRACE reduced costs for the high-risk group.

¹² Bott et al. (2009) also includes a seventh study that evaluates one program.

The **Massachusetts General Hospital and Physicians Organization Care Management** program, one of the six programs participating in CMS's Case Management for High-Cost Beneficiaries Demonstration, targets Medicare beneficiaries receiving FFS care from Massachusetts General Hospital who have high levels of disease severity and costs. Similar to the GRACE program, care coordinators are embedded in the practice. A community resource specialist helps patients to access transportation and housing services when needed. Unlike the GRACE model, the program is at some financial risk—if it does not generate sufficient savings in traditional Medicare expenditures to cover the monthly care coordination fees paid by Medicare, the fee is reduced. Net savings above 5 percent are shared with CMS. An evaluation of the program by McCall et al. (2010) found that the program had expenditures (including fees) that were 12 percent less than the comparison group during the first three years, due to lower growth rates in hospitalizations and emergency room use. It should be noted, however, that this program was the only one of the six programs participating in the high-cost case management demonstration to consistently generate savings; two others reduced costs for some years.

Finally, a **follow-up study of 11 Medicare Care Coordination Demonstration** programs that continued beyond the initially planned four-year demonstration period by Brown et al. (2012) found that, among a high-risk subgroup of Medicare FFS enrollees, four of the programs each had significant reductions in hospitalizations of about 15 per 100 patients (11 percent). The evaluation, which used a randomized design, also found gross Medicare cost savings of about \$123 per enrollee per month over the three-year (on average) follow-up period after enrollment during the 2002–2008 study period. However, for three of the programs, the significant reductions in Medicare costs did not generate net savings, but rather offset the care coordination premiums CMS paid to the plans. Thus, the program was essentially cost neutral and improved patient outcomes for these programs. The other program, Health Quality Partners, did significantly decrease Medicare expenditures, by an amount substantially exceeding the care coordination fee. In addition to these results, a recently completed study of one of the three cost-neutral programs, Washington University, found that it had substantially larger effects and generated sizable net savings (\$792 per beneficiary per year, overall; \$3432 per beneficiary per year for high risk subgroup) after shifting halfway through the program from a primarily telephonic intervention to an on-site location, with close connections to the physicians treating study patients and a redesigned intervention (Peikes et al. 2012). The overall favorable results on hospitalizations for this program were driven entirely by the large effects observed during the three years after the redesign, offsetting the absence of significant effects during the first three years of operation.

The study authors identify particular program features that were present in at least three of the four successful programs, but were missing from most or all of the unsuccessful programs. These key features were similar to those displayed by the GRACE and Massachusetts General programs (see box). Perhaps most importantly, the four successful programs were operated by four different types of organizations in different geographic settings: (1) an academic medical center serving a depressed center city area, (2) an integrated delivery system serving rural Iowa, (3) an urban home health and hospice provider, and (4) a quality improvement provider serving a suburban/exurban area in the northeast. This finding has promise for the generalizability and replicability of the findings.

Key Features of Effective Care Coordination Programs

- In addition to telephone contact, the nurse care coordinators had frequent in-person contact with patients
- Coordinators acted as communications hubs, which helped providers share information with one another and promoted timely patient treatment
- The coordinators and the programs had strong:
 - Relationships with patients' primary care physicians and had frequent opportunities to interact with them in person
 - Patient education programs and used motivational interviewing or readiness-to-change models to assist patients in overcoming barriers to better adherence to medication and self-care regimens
 - Medication management programs, and care managers had ready access to a pharmacist and the program's medical director
 - Transitional care interventions, which included learning about patients' hospitalizations before they were discharged and using a specific protocol dictating the timing and content of post-discharge contacts with the patient

SOURCE: Brown, et al. (2012)

DISCUSSION

As efforts to reduce the growth rate of federal health care expenditures to sustainable levels have intensified, considerable attention has been focused on achieving cost savings for “dual eligibles” – beneficiaries who are enrolled in both Medicare and Medicaid. Expenditures on dual eligibles represent a disproportionate share of Medicare and Medicaid costs. There is great interest and some potential for reducing expenditures on dual eligibles, while maintaining or improving the quality of patient care, by better coordinating the expensive and complex care that they receive. This study addressed the potential for reductions in Medicare costs.¹³

A careful review of the literature thus far raises questions about the potential to achieve large savings, without jeopardizing the quality of patient care, through capitated managed care programs or care coordination approaches in the FFS environment. At the same time, there is evidence to suggest more modest savings are achievable, if programs are highly targeted.

Thus far, there have been few programs designed specifically for dual eligibles, and studies evaluating these interventions have found little or no evidence of savings, or had methodological limitations. The PACE, MSHO, WPP, DCP, SCO, Evercare, and SCAN capitated managed care programs would have generated savings to Medicare if (and only if) their capitation rates had been set lower than the amount Medicare would have paid, had the enrollees been covered under the traditional FFS program. Several of these programs were successful in reducing hospitalizations. What we cannot assess from the evidence is whether these capitated plans would have had enough resources (and financial incentives) to achieve the observed reductions in hospitalizations if the capitation rate had been set low enough to generate Medicare savings. Nor do we know whether the plans would be financially viable at a fee level that would yield Medicare savings relative to what FFS expenditures would have been. Nonetheless, these models appear to provide the most promising approaches to care coordination, especially for the high-cost, high-risk subset of dual eligibles who need LTSS in the community.¹⁴

Thus far, there are a few studies of care management programs focused on high-risk Medicare beneficiaries that provide some guidance on the likely effects of care management for dual eligibles. These programs serve a population that, while containing few dual eligibles, includes beneficiaries with many of the same chronic conditions and health problems as dual eligibles, and therefore may contain lessons that are applicable to the dually eligible population. The evidence from these methodologically stronger studies is mixed, however, suggesting that savings are likely to be achieved only if programs include the features that the most successful of these programs shared and can achieve the same reductions in hospital use at a lower monthly fee.¹⁵

One important caveat to inferring potential savings for all dual eligibles from these FFS-based care management programs is that none of the programs with strong evidence of cost-savings served a population that required substantial amounts of LTSS; thus it is not possible to say how well these approaches would work for the 36

¹³ Our focus in this paper is on Medicare savings; however, additional savings for the federal and state governments could be achieved if the programs are able to reduce nursing home use, which could generate large Medicaid savings. States, whether through FFS or Medicaid managed long-term care programs, have moved toward greater use of LTSS and less use of nursing homes. However, evidence is mixed on how successful this has been, and even intensive case management interventions such as PACE have shown no effects on nursing home admissions. Dale and Brown (2006), in a randomized controlled trial, show that the Cash and Counseling program, allowing recipients of Medicaid home and community-based services to direct their own care reduced nursing home entry in Arkansas. This approach was implemented in FFS Medicaid.

¹⁴ These programs may also be effective for beneficiaries living in the community who do not need LTSS, and possibly for those who are in nursing homes. However, no results are available for these subgroups for these plans. The main point here is that the programs were able to reduce hospitalizations for groups of enrollees containing a large proportion of community-dwelling dual eligibles with complex needs for both LTSS and medical services.

¹⁵ See Komisar and Feder (2011) and Brown et al. (2012).

percent of dual eligibles who require these services.¹⁶ Thus, the tested FFS-based care coordination programs may not be as effective at reducing hospitalizations among that more complex (and expensive) subgroup of dual eligibles.

For dual eligibles who live in the community and have multiple and/or severe chronic conditions, but tend not to need LTSS (about one-quarter of full-benefit dual eligibles),¹⁷ the above models have proven potential to reduce hospitalizations and *perhaps* produce savings. Achieving these objectives will require the programs to replicate their effects on hospitalizations and be financially viable, after taking into account the costs associated with care coordination fees. Care coordination fees are roughly \$140–\$195 per enrollee per month – an estimate that is based on the experience of five of the coordinated care programs that reduced hospitalizations at some point during the 2002–2008 period, all of which received monthly fees of \$105 to \$145 per enrollee.¹⁸ Generating net savings at this cost is likely to require reductions of at least 15 hospitalizations per 100 enrollees — about the average observed for these plans.

Our findings suggest that efforts to coordinate care for dual eligibles may (or may not) produce modest savings. Even programs that reduce hospitalizations are not always successful in achieving savings due to the offsetting expense of care coordination fees and other associated expenses. These findings raise questions about proposals that assume large-scale savings for Medicare from enrolling dual eligibles in managed care or FFS care coordination programs.

The existing empirical evidence suggests several lessons for policymakers:

- Do not count on the large Medicare savings that some have been projected will result from either a managed care or coordinated care solution. For care coordination programs, do not expect any savings to occur in the first two years of implementation.
- Interventions that are highly-targeted (for example, programs that focus on beneficiaries at high risk of hospitalizations) are more likely to achieve savings than interventions that are designed for all dual-eligible beneficiaries.
- Programs that are relatively modest in size have the best track record. Virtually all of the programs with credible positive findings were modest in size. It appears that for dual eligibles, small organizations (whether capitated managed care like DCP or PACE or a FFS-based care coordination program like GRACE) are attuned to the needs of the individual enrollee. While larger entities may be able to achieve comparable or even better results, there is no verifiable evidence of this yet.
- In offering a program for dual eligibles that is required to achieve savings or not result in an increase in costs, few or no service providers may be willing to participate in a number of markets. While a sufficiently low premium can “guarantee” that putting all dual eligibles in managed care plans would save money, that is true only if plans are willing to participate. The premium level that would yield

¹⁶ About 17 percent of the 7 million dual eligibles with full Medicaid benefits used substantial institutional care in 2007; another 18 percent used substantial amounts of community-based long-term care services, and another 1 percent used both types of LTSS. See Table 7 at <http://www.kff.org/medicaid/upload/7576-02.pdf>.

¹⁷ The estimate that about one-quarter (26 percent) of full-benefit dual eligibles have multiple chronic conditions but are not using LTSS was derived from data cited in the previous footnote (36 percent of full-benefit dual eligibles received LTSS in 2007) together with the estimate produced by Mathematica (2010) for MedPAC’s 2010 report to Congress [http://www.medpac.gov/documents/jun10_entirereport.pdf] that 62 percent of full-benefit dual eligibles have two or more chronic conditions. We assume that all dual eligibles receiving LTSS have multiple chronic conditions; thus, about 26 percent (62–36=26) of dual eligibles have multiple chronic conditions, but are not receiving LTSS. The remaining 38 percent of duals receive no LTSS and have one or fewer chronic conditions.

¹⁸ Inflating the \$105–\$145 range of cost by 5 percent per year from the middle of this time period (2006) to 2012 yields the \$140–\$195 estimate.

Medicare savings relative to FFS is substantially below the rate currently paid to D-SNPs in most markets, and in most markets, SNPs report costs per beneficiary for basic Medicare services that exceed average FFS expenditures for similar beneficiaries. This combination suggests that a cost-saving premium might drive many plans out of the market in all but the metropolitan areas with the highest FFS costs. Similarly, a FFS-based care coordination premium that is less than the expected Medicare cost savings achievable through reductions in hospital and emergency room use would generate net savings, but may not be high enough to entice many sustained participants. Alternatively, the monthly fee may not provide sufficient revenue for the participating programs to finance the type of comprehensive intervention that is needed to achieve the substantial hospital reductions required to offset those fees.

Finally and most importantly given the significant medical needs and complex circumstances of so many dual-eligible beneficiaries, it will be essential to monitor and measure access to and quality of care, as efforts get underway to improve coordination and lower costs.

Over the next few years, the new pilot programs for dual eligibles that are just getting started should provide more specific information on whether managed care and FFS-based care coordination providers are able to build successfully on proven interventions to generate savings for Medicare. In states implementing managed care solutions, it will be instructive to see how capitation rates are set, how the programs are targeted, and once policies and payment rates are established, how many qualified managed care plans are willing to participate if the rates are set at a level that will generate savings relative to FFS costs. In states implementing FFS-based coordinated care options, similar considerations will determine whether savings are achieved, including the following: payment rates for the services would need to be less than the expected costs of providing care; care coordination providers would need to be willing and able to implement effective interventions at the lower rates; and the programs would need to be targeted to dual eligibles who are at high risk of incurring high Medicare expenditures, with effective strategies for coordinating the more complex care needs of dual eligibles. It will be critical to develop strong research designs to learn from these programs, and identify quickly the features that distinguish those programs that are successful from those that are not, and how the interventions and their successes vary with the characteristics of this diverse population. There is much to be gained by real improvements in the financing and delivery of care for dual-eligible beneficiaries.

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REFERENCES

- America's Health Insurance Plans (AHIP). "Working Paper: A Preliminary Comparison of Utilization Measures Among Diabetes and Heart Disease Patients in Eight Regional Medicare Advantage Plans and Medicare Fee-for-Service in the Same Service Areas." September 2009.
- Avalere Health. "Dual Eligible Population Analysis for SCAN Health Plan: Hospitalizations and Readmissions." March 2012.
- Beauchamp, Jody, Valerie Cheh, Robert Schmitz, Peter Kemper, and John Hall. "The Effect of the Program of All-Inclusive Care for the Elderly (PACE) on Quality: Final Report." Princeton, NJ: Mathematica Policy Research, February 12, 2008.
- Biles, Brian. "Analysis of MA and D-SNP Plan costs Relative to Traditional Medicare FFS Costs." Forthcoming. Bott, David M., Mary C. Kapp, Lorraine B. Johnson, and Linda M. Magno. "Disease Management for Chronically Ill Beneficiaries in Traditional Medicare." *Health Affairs*, vol. 28, no. 1, 2009, pp. 86–98.
- Boult, Chad, Lisa Reider, Bruce Leff, Kevin Frick, Cynthia Boyd, Jennifer Wolff, Katherine Frey, Lya Karm, Stephen Wegener, Tracy Mroz, and Daniel Scharfstein. "The Effect of Guided Care Teams on the Use of Health Services: Results from a Cluster-Randomized Controlled Trial." *Archives of Internal Medicine*, vol. 171, no. 5, March 14, 2011, pp. 460–466.
- Brown, Jason, Mark Duggan, Ilyana Kuziemko, and William Woolston. "How Does Risk Selection Respond to Risk Adjustment? Evidence from the Medicare Advantage Program." NBER Working Paper 16977. Cambridge, MA: National Bureau of Economic Research, April 2011.
- Brown, Randall S., Dolores G. Clement, Jerrold W. Hill, Sheldon M. Retchin, and Jeanette W. Bergeron. "Do Health Maintenance Organizations Work for Medicare?" *Health Care Financing Review*, fall 1993, pp. 7–23.
- Brown, Randall, Deborah Peikes, Greg Peterson, Jennifer Schore, and Carol Razafindrakato. "Six Features of Medicare Coordinated Care Demonstration Programs That Cut Hospital Admissions of High-Risk Patients." *Health Affairs*, vol. 31, no. 6, June 2012.
- Centers for Medicare and Medicaid Services (CMS). "Policy Insight Report: Dual Eligibles and Potentially Avoidable Hospitalizations." Center for Strategic Planning, Policy and Data Analysis Group. June 2011. Accessible at: http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/downloads/Segal_Policy_Insight_Report_Duals_PAH_June_2011.pdf. Also, see Segal, Misha. "Dual Eligible Beneficiaries and Potentially Avoidable Hospitalizations." Policy Insight Brief, Center for Strategic Planning, CMS, Sept 2011. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Insight-Briefs/downloads//PAHInsightBrief.pdf>
- Coleman, Eric A., Carla Parry, Sandra Chalmers, and Sung-Joon Min. "The Care Transitions Intervention: Results of a Randomized Controlled Trial." *Archives of Internal Medicine*, vol. 166, no. 17, 2006, pp. 1822–1828.
- Counsell, Steven R., Christopher M. Callahan, Daniel O. Clark, Wanzhu Tu, Amna B. Buttar, Timothy E. Stump, and Gretchen D. Ricketts. "Geriatric Care Management for Low-Income Seniors: A Randomized Controlled Trial." *Journal of the American Medical Association*, vol. 298, no. 22, 2007, pp. 2623–2633.
- Counsell, Steven R., Christopher M. Callahan, Wanzhu Tu, Timothy E. Stump, and Gregory W. Arling. "Cost Analysis of the Geriatric Resources for Assessment and Care of Elders Care Management Intervention." *Journal of the American Geriatrics Society*, vol. 57, no. 8, August 2009, pp. 1420–1426.

- Dale, Stacy B., and Randall S. Brown. "Reducing Nursing Home Use through Consumer-Directed Care." *Medical Care*, vol. 44, no. 8, August 2006, pp. 760–767.
- Esposito, Dominick, Randall S. Brown, Arnold Y. Chen, Jennifer L. Schore, and Rachel Shapiro. "Impacts of a Disease Management Program for Dually Eligible Beneficiaries." *Health Care Financing Review*, vol. 30, no. 1, fall 2008, pp. 27–45.
- Foster, Leslie, Robert Schmitz, and Peter Kemper. "The Effects of PACE on Medicare and Medicaid Expenditures: Final Report." Princeton, NJ: Mathematica Policy Research, August 29, 2007.
- Government Accountability Office (GAO). "Medicare Advantage: Quality Bonus Payment Demonstration Undermined by High Estimated Costs and Design Shortcomings." March 21, 2012.
- Jacobson, Gretchen, Tricia Neuman, and Anthony Damico. "Medicare's Role for Dual Eligible Beneficiaries." Washington, DC: Kaiser Family Foundation, April 2012.
- JEN Associates. "MassHealth Senior Care Options Program Evaluation: Pre-SCO Enrollment Period CY2004 and Post-SCO Enrollment Period CY2005 Nursing Home Entry Rate and Frailty Level Comparisons." June 6, 2008.
- Kane, Robert L., and Patricia Homyak. "Multistate Evaluation of Dual Eligibles Demonstration: Final Report." University of Minnesota School of Public Health, August 2004.
- Kane, Robert L., Gail Keckhafer, and John Robst. "Evaluation of Evercare Demonstration Program: Final Report." University of Minnesota School of Public Health, May 2002.
- Komisar, Harriet K., and Judy Feder. "Transforming Care for Medicare Beneficiaries with Chronic Conditions and Long-Term Care Needs: Coordinating Care Across All Services." October 2011.
- Leff, Bruce, Lisa Reider, Kevin Frick, Daniel Scharfstein, Cynthia Boyd, Katherine Frey, Lya Karm, and Chad Boulton. "Guided Care and the Cost of Complex Healthcare: A Preliminary Report." *The American Journal of Managed Care*, vol. 15, no. 8, August 2009, pp. 555–559.
- Levitz, Jennifer. "State Seeks Help to Cut Cost of Chronically Ill." *Wall Street Journal*, October 27, 2011.
- The Lewin Group. "Bending the Health Care Cost Curve in New York State: Options for Saving Money and Improving Care." July 2010.
- The Lewin Group. "Increasing Use of the Capitated Model for Dual Eligibles: Cost Savings Estimates and Public Policy Opportunities." November 2008.
- Mathematica Policy Research. "Medicaid and Medicare Spending on Dual-Eligible Beneficiaries." Report prepared for MedPAC, 2010.
- McCall, Nancy, and Jerry Cromwell. "Results of the Medicare Health Support Disease-Management Pilot Program." *New England Journal of Medicine*, vol. 365, no. 18, 2011, pp. 1704–1712.
- McCall, Nancy, Jerry Cromwell, and Carol Urato. "Evaluation of Medicare Care Management for High Cost Beneficiaries Demonstration - Massachusetts General Hospital and Massachusetts General Physicians Organization: Final Report." Research Triangle Park, NC: RTI International, September 2010.
- Medicare Payment Advisory Commission (MedPAC). "Report to Congress: Medicare Payment Policy." March 2012.
- Meyer, Harris. "A New Care Paradigm Slashes Hospital Use and Nursing Home Stays for the Elderly and the Physically and Mentally Disabled." *Health Affairs*, vol. 30, no. 3, 2011, pp. 412–415.

- Munevar, Dianne, and Edward Drozd. "Analysis of SCAN Health Plan's Dual Eligible Population: Technical Specifications." Letter to Peter Begans, SVP Public and Government Affairs, SCAN Health Plan, March 30, 2012.
- Naylor, Mary D., Dorothy Brooten, Roberta Campbell, Greg Maislin, Kathleen McCauley, and J. Sanford Schwartz. "Transitional Care of Older Adults Hospitalized with Heart Failure: A Randomized, Controlled Trial." *Journal of the American Geriatrics Society*, vol. 52, 2004, pp. 675–684.
- Nelson, Lyle. "Working Paper: Lessons from Medicare's Demonstration Projects on Disease Management and Care Coordination." Congressional Budget Office, January 2012.
- Peikes, Deborah, Arnold Chen, Jennifer Schore, and Randall Brown. "Effects of Care Coordination on Hospitalization, Quality of Care, and Health Care Expenditures among Medicare Beneficiaries: 15 Randomized Trials." *Journal of the American Medical Association*, vol. 301, no. 6, February 11, 2009, pp. 603–618.
- Peikes, Deborah, George Peterson, Randall Brown, Sandy Graff, and John Lynch. "How Changes in Washington University's Medicare Coordinated Care Demonstration Pilot Ultimately Achieved Savings." *Health Affairs*, vol. 31, no.6, June 2012.
- Stewart, Kate A., Dominick Esposito, Jeffrey A. Holt, Mark Flick, and Anne Bloomenthal. "Evaluation of the LifeMasters Disease Management Demonstration Program for Dual Eligible Beneficiaries." Princeton, NJ: Mathematica Policy Research, July 21, 2010.
- Thorpe, Kenneth. "Estimated Federal Savings Associated with Care Coordination Models for Medicare-Medicaid Dual Eligibles." AHIP, September 2011.
- UnitedHealth, Center for Health Reform and Modernization. "US Deficit Reduction: The Medicare and Medicaid Modernization Opportunity." Working paper. October 2010.
- University of Massachusetts Medical School, Center for Health Policy & Research. "Rating Category IV: Members with Severe Physical Disabilities Phase II Evaluation: Claims Data Analysis." July 2005.
- Wennberg, David, Amy Marr, Lance Lang, Stephen O'Malley, and George Bennett. "A Randomized Trial of a Telephone Care-Management Strategy." *New England Journal of Medicine* vol. 363, 2010, pp. 1245–1255.
- The White House. "Fact Sheet: The President's Framework for Shared Prosperity and Shared Fiscal Responsibility." April 2011. Available at: [<http://www.whitehouse.gov/the-press-office/2011/04/13/fact-sheet-presidents-framework-shared-prosperity-and-shared-fiscal-resp>].
- Young, Katherine, Rachel Garfield, Marybeth Musumeci, Lisa Clemans-Cope, and Emily Lawton. "Medicaid's Role for Dual Eligible Beneficiaries." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, April 2012.
- U.S. House of Representatives, Committee on Energy and Commerce. "Hearing on Dual-Eligibles: Understanding this Vulnerable Population and How to Improve Care." June 2011. Available at [<http://democrats.energycommerce.house.gov/index.php?q=hearing/hearing-on-dual-eligibles-understanding-this-vulnerable-population-and-how-to-improve-care>].
- U.S. Senate, Committee on Finance. "Dually-Eligible Beneficiaries: Improving Care While Lowering Costs." September 2011. Available at: [<http://finance.senate.gov/hearings/hearing/?id=1e16d50e-5056-a032-523f-da1cd1bd91aa>].

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