

**medicaid**  
and the **uninsured**

April 2012

**The Diversity of Dual Eligible Beneficiaries:  
An Examination of Services and Spending for People  
Eligible for Both Medicaid and Medicare**

Nationwide, 9 million individuals are dually eligible for both Medicaid and Medicare services. These “dual eligibles” are low-income seniors and individuals with disabilities who rely on Medicare for coverage of acute care medical services (such as hospital, physician, prescription drugs, and post-acute care) and on Medicaid for financial assistance with Medicare’s premiums and cost sharing. Most dual eligibles also rely on Medicaid to provide coverage for services not included in Medicare, particularly long-term care. Dual eligibles have long been of interest to policymakers due to their relatively high health care needs and correspondingly high cost: Although dual eligibles represent only 21 percent of the Medicare population and 15 percent of the Medicaid population, they account for nearly 36 percent of total Medicare spending and 39 percent of total Medicaid spending.<sup>1</sup>

Policymakers are exploring strategies to better coordinate and integrate care for dual eligibles and align financing for this population.<sup>2</sup> Finding realistic, effective strategies is challenging for many reasons. Medicare and Medicaid are two different, very large public health insurance programs that operate separately and sometimes work at cross-purposes. Medicare is a federal program while Medicaid is a joint federal-state program that differs across states. Further, there is great diversity among dual eligibles in their health care needs. Some dual eligibles have relatively limited needs whereas others are among the nation’s most vulnerable individuals with complex health conditions and high medical and long-term care costs.

Despite their considerable policy importance, limited work has been done that examines combined Medicaid and Medicare service use and spending patterns for dual eligibles. In this brief, we update a previous study<sup>3</sup> and present findings based on analysis of linked 2007 Medicare and Medicaid data. Specifically, we examine characteristics, health status, utilization, and spending for dual eligibles compared to the non-dual Medicare population.<sup>4</sup>

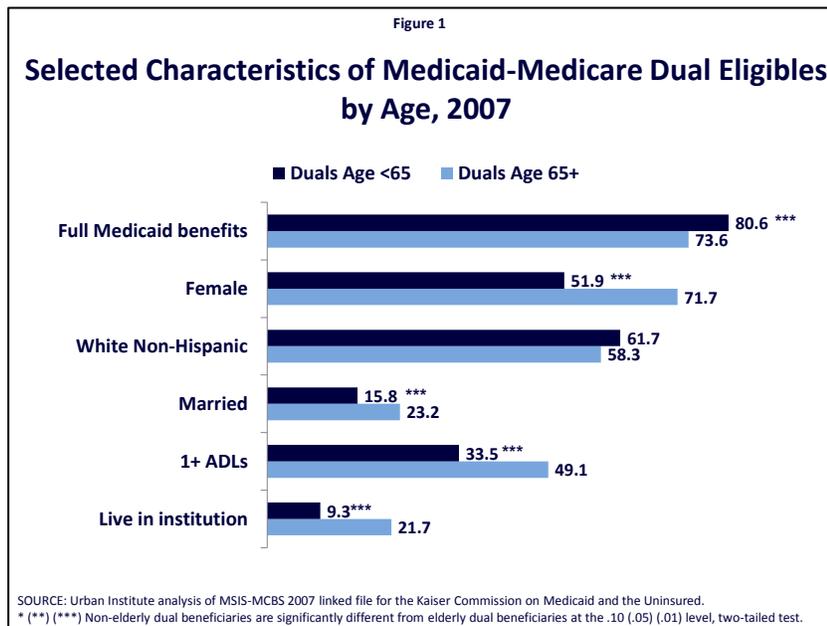
**DUAL ELIGIBLES ARE A DIVERSE POPULATION**

There is considerable diversity within the dual eligible population. First, there are different eligibility pathways through which a Medicare beneficiary may become eligible for Medicaid, depending on the person’s income and assets.<sup>5</sup> Most dual eligibles (76.3 percent or about 6.8 million individuals) are “full

dual eligibles” and are eligible for all Medicaid benefits that provide “wrap-around coverage” to Medicare (Table 1). This wrap-around coverage includes some very significant categories of benefits for dual eligibles that Medicare does not cover, such as long-term care. The extent of this wrap-around coverage depends upon what services are provided by the state Medicaid program where a dual eligible lives. In addition to receiving all Medicaid benefits, Medicaid also pays Medicare cost sharing for full dual eligibles. The balance of dual eligibles (22.5 percent or about 2.0 million individuals) is comprised of so-called “partial dual eligibles.” Sometimes referred to as Medicare Savings Plan or MSP dual eligibles, partial dual eligibles are not eligible for full Medicaid benefits and only receive help with Medicare cost sharing from Medicaid.

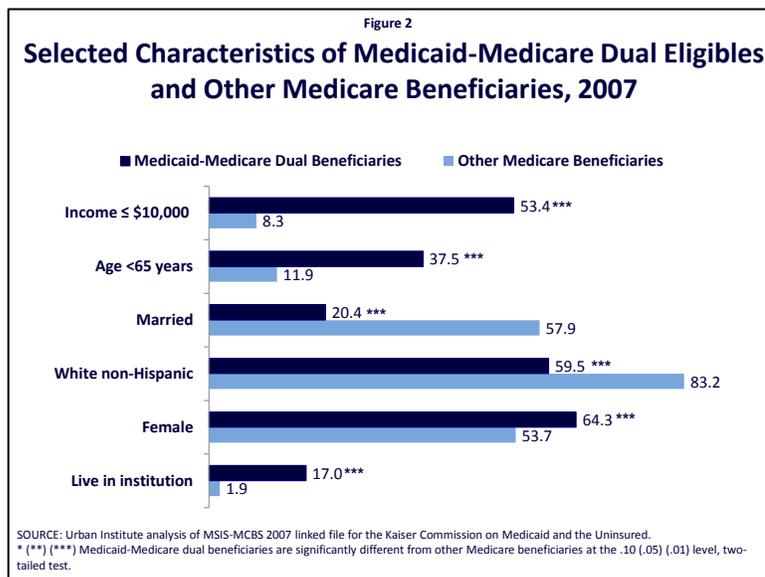
Dual eligibles also vary on other dimensions. There is wide variation in functional status among dual eligibles. A quarter (25.1 percent) report limitations in three or more activities of daily living (ADLs), but the bulk (56.7 percent) report no such limitations. Similarly, many dual eligibles have serious chronic health conditions (e.g., diabetes, mental illness and heart disease), but nearly a third (31.9 percent) had no health conditions among the ones we examined (data not shown).<sup>6</sup> Though a sizable minority (17.0 percent) of dual eligibles lives in institutions, most (79.2 percent) live in the community; another 3.8 percent spend time in both the community and in institutions.

There is considerable age difference among dual eligibles. About one-third of the group is disabled and under age 65, but two-thirds are over age 65 (Table 1). Dual eligibles who are under age 65 differ from those age 65 and up (Figure 1). For example, elderly dual eligibles are more likely than non-elderly dual eligibles to qualify as MSP or partial (versus full) dual eligibles, more likely to be female, and more likely to be married (versus single, widowed or divorced). Elderly dual eligibles are also more likely to have a functional limitation and, correspondingly, more likely to reside in an institutional setting.

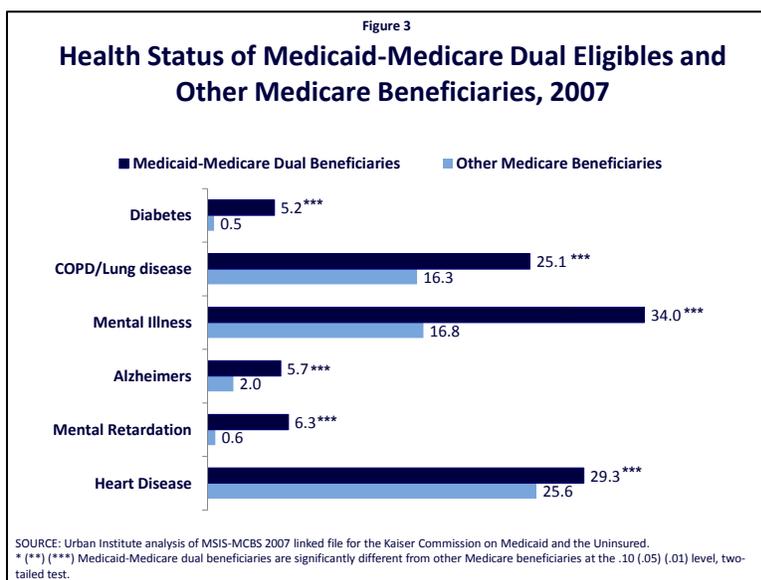


## DUAL ELIGIBLES ARE DISTINCT FROM OTHER MEDICARE BENEFICIARIES

Apart from being a diverse group in and of itself, dual eligibles as a group differ from other Medicare beneficiaries (Figure 2). For example, dual eligibles are poorer. More than half (53.4 percent) have incomes less than \$10,000 whereas only 8.3 percent of other Medicare beneficiaries have incomes at this level. Dual eligibles are younger: 37.5 percent of dual eligibles are under age 65 versus 11.9 percent for other Medicare beneficiaries. They are also less likely to be married and to be of a race/ethnicity other than White non-Hispanic. Finally, and importantly, dual eligibles are much more likely to be living in an institution—one out of every six dual eligibles lives in an institution whereas only one out of 50 other Medicare beneficiaries reside in an institution. This comparatively high rate of institutionalization among dual eligibles has important implications on their health care spending.

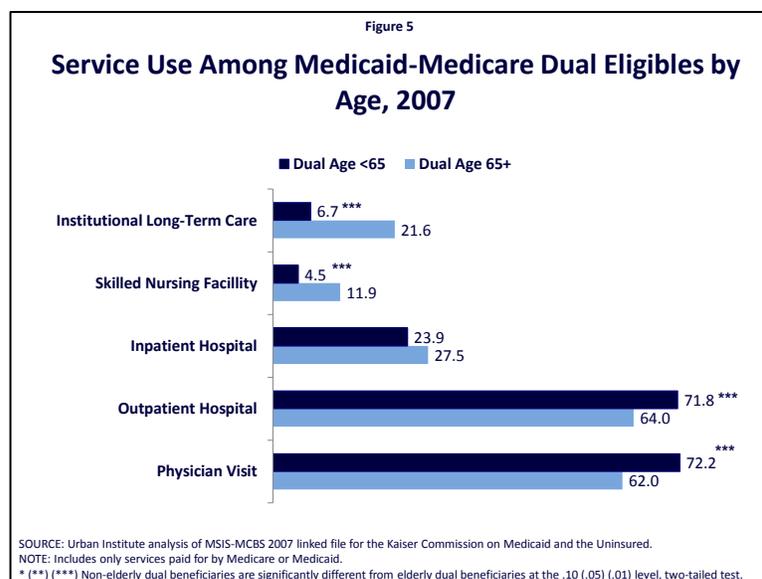
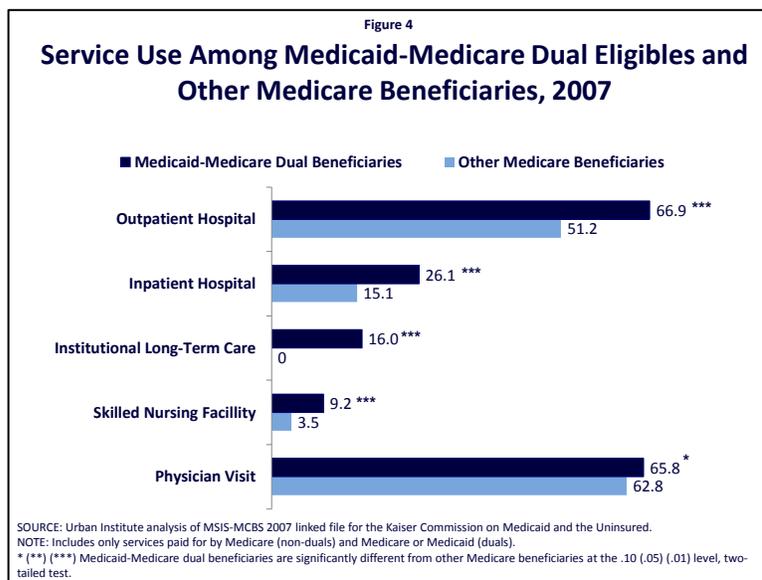


Dual eligibles are also in poorer health. As shown in Figure 3, compared to other Medicare beneficiaries, dual eligibles are much more likely to be diagnosed with diabetes (5.2 percent versus 0.5 percent), COPD/lung disease (25.1 percent versus 16.3 percent), mental illness (34.0 percent versus 16.8 percent) and Alzheimer’s (5.7 percent versus 2.0 percent), among others. Dual eligibles also have a lower functional status. For example, more than a quarter of dual eligibles (25.1 percent) are limited in three or more activities of daily living (ADLs) whereas only 6.3 percent of other Medicare beneficiaries fall into this category (Table 1).



## DUAL ELIGIBLES USE MORE HEALTH CARE SERVICES COMPARED TO OTHER MEDICARE BENEFICIARIES AND COST MORE TO SERVE

Given their lower health status, dual eligibles have a higher level of service use in all of the categories examined compared to other Medicare beneficiaries (Figure 4).<sup>7</sup> These differences are particularly large for outpatient hospital services, inpatient hospital services and institutional long-term care. Among dual eligibles, there are significant utilization differences between elderly and non-elderly dual eligibles (Figure 5). Elderly dual eligibles are much more likely to use institutional long-term care and skilled nursing facilities compared to their younger counterparts, while non-elderly dual eligibles are more likely to use outpatient hospital and physician services than their elderly counterparts. For inpatient hospital care, however, we found no use difference between elderly and nonelderly dual eligibles.

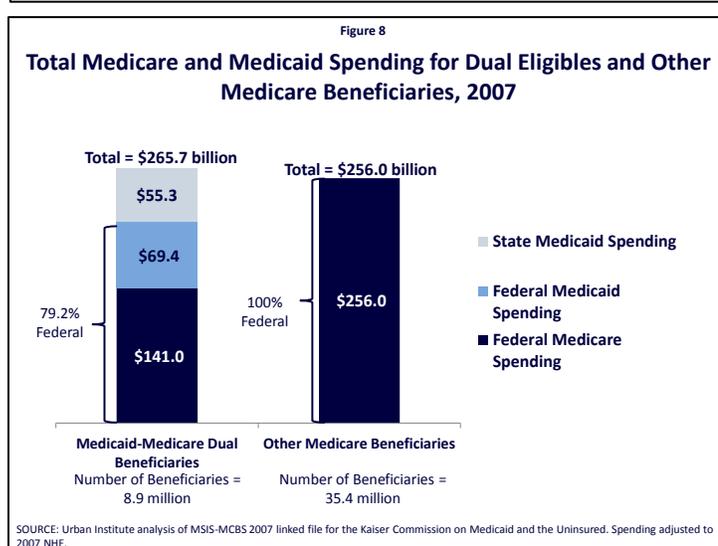
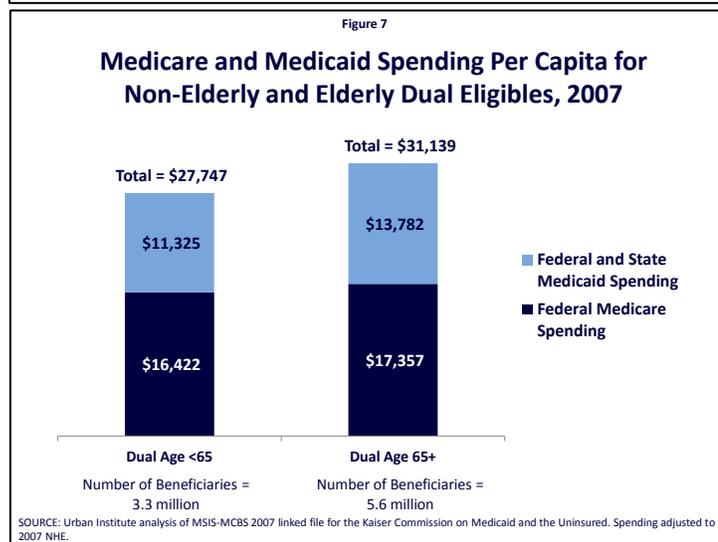
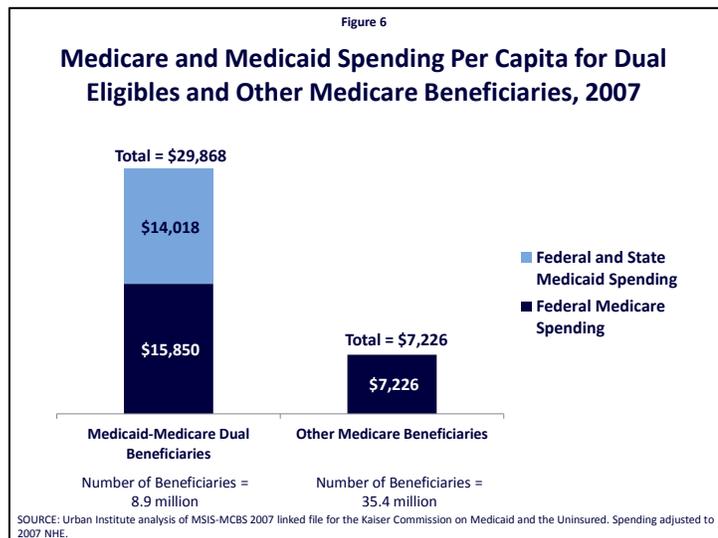


Corresponding to their higher service use, dual eligibles are more costly to care for (Figure 6). In 2007, Medicare alone spent \$15,850 per capita on dual eligibles, more than twice the per capita spending on other Medicare beneficiaries (\$7,226). Accounting for both federal and state Medicaid spending, total Medicaid per capita spending on dual eligibles is \$14,018, a bit lower than the per capita Medicare spending amount. Combined per capita Medicare and Medicaid spending for dual eligibles is \$29,868, more than four times per capita spending for other Medicare beneficiaries. Among dual eligibles, elderly are slightly more costly to care for than non-elderly dual eligibles. Combined Medicare and Medicaid spending per capita for the two groups were, respectively, \$31,139 and \$27,747 in 2007 (Figure 7).

In terms of total spending (Figure 8), Medicare and Medicaid spending for the 8.9 million dual eligibles totaled \$265.7 billion in 2007. For the 35.4 million other

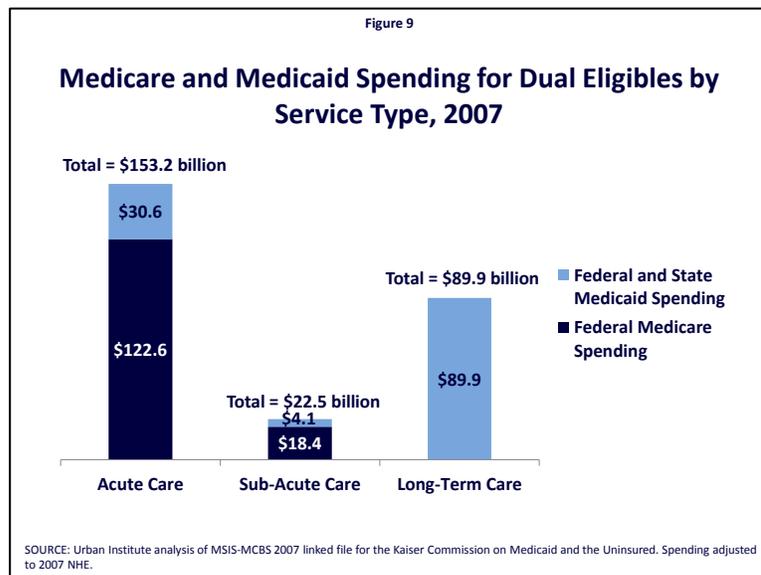
Medicare beneficiaries (a group about four times larger than the dual eligible group), Medicare spending totaled \$256.0 billion.

Medicare and Medicaid finance nearly equal shares of spending for dual eligibles: \$141.0 billion and \$124.7 billion, respectively. Nearly four out of every five dollars (79.2 percent) that Medicare and Medicaid spends caring for dual eligibles is paid for with federal funds: Collectively, in 2007 the federal government paid \$210.4 billion on dual eligibles—\$141.0 billion through Medicare and \$69.4 billion through federal Medicaid matching payments; state Medicaid spending for the dual eligibles totaled \$55.3 billion.



## MEDICAID AND MEDICARE'S SHARE OF SPENDING VARIES BY TYPE OF SERVICE

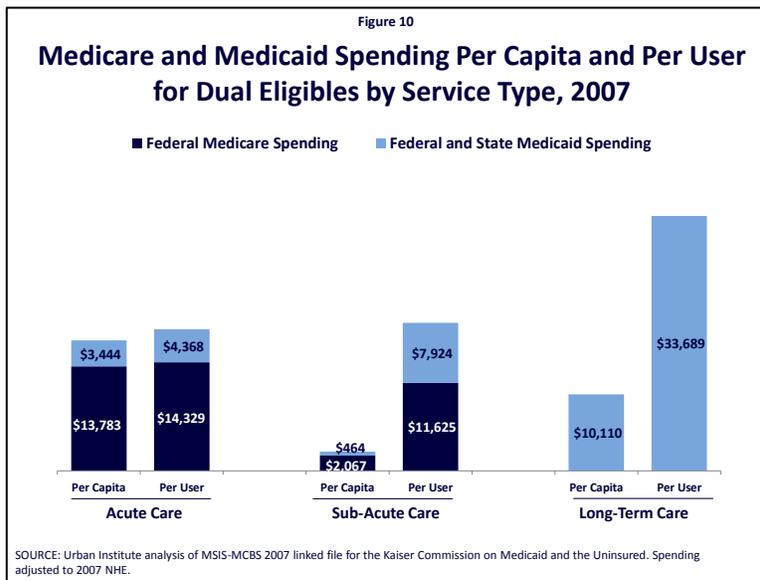
Although Medicaid and Medicare each finance about half of total public spending on dual eligibles, the distribution of spending by program varies considerably by type of service (Figure 9 and Table 2). Overall, Medicare paid the bulk (80.0 percent) of acute care services whereas Medicaid paid 20.0 percent. The share that Medicaid paid, however, ranged from a low of 2.8 percent for prescription drugs to a high of 79.6 percent for other acute care services, many of which are wrap-around services that Medicaid



provides (some at state option) such as dental, vision and case management (Table 2). For sub-acute care, Medicare again finances the vast majority (81.7 percent) of these services with Medicaid paying 18.3 percent. However, for home health care (a subset of sub-acute care and for which Medicare's coverage is limited), Medicaid paid 33.4 percent of these services. By contrast, Medicaid clearly dominates the financing of dual eligibles' long-term care, both institutional and community-based care. For these services, Medicaid finances 100 percent of the spending.

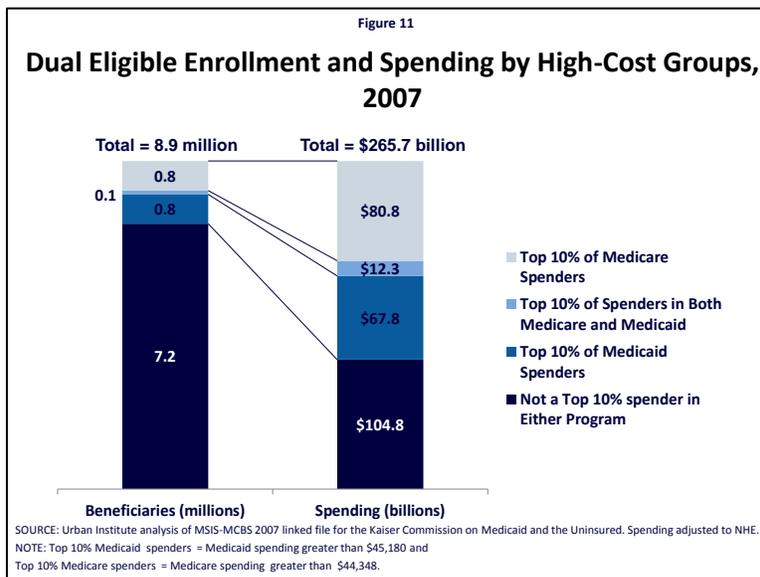
These findings are consistent with the design of Medicare and Medicaid: Medicare covers many acute care services and Medicaid provides wrap-around coverage for those services by paying Medicare cost sharing for dual eligibles. Full dual eligibles also receive all Medicaid benefits, which include some additional acute and sub-acute care services beyond what Medicare covers (e.g., home health) and long-term care services not covered by Medicare. Of the total amount that Medicare spent on services for dual eligibles, 87.0 percent was for acute care services, with the remainder spent on sub-acute care (Table 2). Of the total amount Medicaid spent on services for dual eligibles, 72.1 percent was for long-term care, with 24.6 percent spent on acute care and 3.3 percent spent on sub-acute services (Table 2).

Spending patterns differ when examining spending among just those who use services (versus all dual eligibles) (Figure 10 and Table 2). While per capita spending figures provide an estimate of program expenditures for the dual eligible population, per user spending figures provide an estimate of the cost of services for a dual who requires a particular type of care. Comparing spending for dual eligibles on per capita and per user basis, we find little difference between the two for acute care services (Figure 10). This reflects the fact that virtually all dual eligibles use acute care services, particularly ambulatory care and prescription drugs. For sub-acute and long-term care, however, we find a substantial difference between the per capita and per user estimates, reflecting the more limited use of these services (Figure 10). The most expensive service, by far, is institutional long-term care, which was \$42,410 per user (Table 2). While lower, per user costs for community-based long-term (\$21,242) are also high (Table 2).

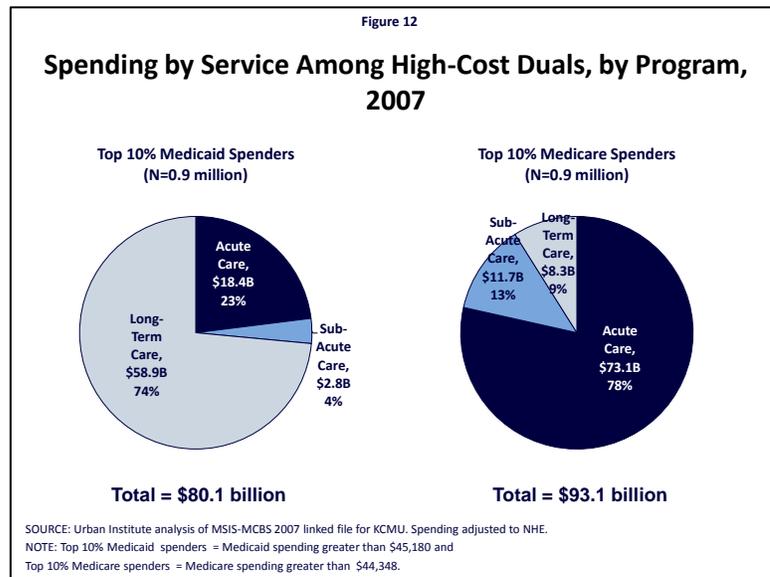


### WHO ARE THE HIGH-COST DUAL ELIGIBLE BENEFICIARIES?

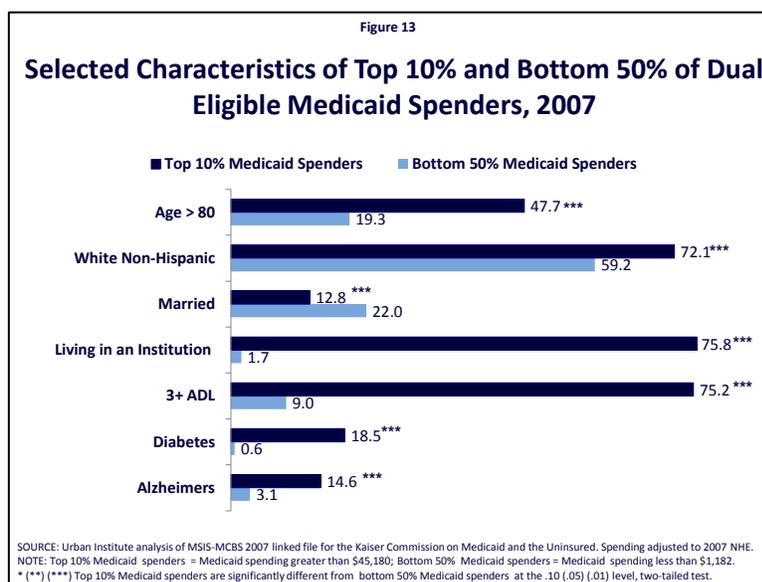
While on average dual eligibles are a high-cost group, there is considerable heterogeneity among them. As is the case for health spending generally, a relatively small portion of dual eligibles are responsible for the majority of the group’s total spending, with fewer than 20 percent of dual eligibles accounting for nearly 60 percent of combined Medicaid and Medicare spending for dual eligibles. Because of the split in the types of services covered by Medicare and Medicaid, what makes beneficiaries high-cost in one program does not necessarily make them high-cost in the other. Indeed, our analysis finds relatively small overlap in the highest spenders in the two programs (Figure 11). Looking at the top 10 percent of dual eligibles in terms of Medicaid spending—those with more than \$45,180 in Medicaid spending—fewer than 15 percent are also in the top 10 percent of dual eligibles in Medicare spending—those with Medicare spending greater than \$44,348. Only about 83,000 dual eligibles are in the highest 10 percent of the spending distribution in both Medicaid and Medicare.



Focusing on the approximately 900,000 dual eligibles who constitute the top 10 percent of Medicaid spenders (Figure 12; left pie), we find that 74 percent of their combined Medicare and Medicaid spending is for long-term care while just 23 percent is for acute care. Thus, the high costs for this group of dual eligibles are driven largely by spending on costly long-term care services, such as institutional care. In stark contrast, for the top 10 percent of Medicare spenders (Figure 12; right pie), 78 percent of their spending was for acute care services and less than 10 percent is for long-term care services. Thus the high costs for this group of dual eligibles are driven by intense use of acute care services such as inpatient hospital care.



An examination of the demographic and health characteristics of top spending dual eligibles for Medicaid to their lower-cost counterparts suggests several factors that distinguish the two groups (Figure 13). Compared to lower-cost Medicaid dual eligibles—that is, dual eligibles in the bottom half of the Medicaid spending distribution (or with Medicaid spending less than \$1,182)—top dual Medicaid spenders are more likely to be over age 80, white, non-Hispanic, and less likely to be married. Living in an institution and, closely related, having 3 or more ADL limitations come close to completely determining who a high-cost dual for Medicaid is. Finally, top spending Medicaid dual eligibles are substantially more likely than lower-cost Medicaid dual eligibles to have diabetes or Alzheimer’s disease.



## CONCLUSIONS

On average, dual eligibles are among the most costly beneficiaries in both Medicare and Medicaid. They are generally both sicker and poorer than other Medicare beneficiaries and, correspondingly, use more services and cost more per capita. Medicare and Medicaid share the cost of caring for dual eligibles, with Medicaid financing just under half of the spending on the group. Compared to previous years,<sup>8</sup> Medicaid's share of cost for dual eligibles has declined somewhat, largely due to the 2006 implementation of a prescription drug benefit in Medicare that shifted responsibility for this service from Medicaid to Medicare.

Consistent with previous work, we find considerable diversity among dual eligibles in their demographic and diagnostic profiles and patterns of service use. We also find that being a dual eligible is not synonymous with high-spending. Some dual eligibles have relatively low service needs and corresponding cost, and some dual eligibles are eligible only for a limited set of benefits from Medicaid (specifically, assistance with Medicare cost sharing). Other dual eligibles, however, have very substantial health care needs. Many with high needs rely heavily on Medicare for acute care services, while others with high needs rely heavily on Medicaid for long-term care services. Only a small number of dual eligibles—less than a million—are heavy users of both Medicare acute care and Medicaid long-term care services.

The diversity in the dual eligible population is important to the development of effective strategies to finance their care and control costs. Importantly, the factors that make dual eligibles more expensive than other *Medicare* beneficiaries are not the same factors that make them expensive relative to other *Medicaid* beneficiaries. For Medicare, the reason for high costs among dual eligibles is the elevated need for acute care resulting from the increased prevalence of chronic disease associated with age, disability and poverty. But for Medicaid, the principal reason that dual eligibles tend to be expensive is that they are more likely than other dual beneficiaries to be users of institutional long-term care.

These results suggest that decision-makers should adopt a multi-pronged approach in developing approaches to improve care delivery and efficiency for dual eligibles. This is challenging in itself, and with the split in financing obligations between Medicare and Medicaid the challenge becomes that much greater. On one hand, the clear distinction in responsibilities could enable each program to focus on the services most relevant to its costs. On the other hand, if each program focuses only on its own high-cost users in its efforts to address coordination/integration, they will be missing most of the dual eligibles who are of importance to the other program. Further, uncoordinated policy action between the two programs could have offsetting effects: for example, Medicare efforts to address high costs for sub-acute care could lead to higher Medicaid spending for sub-acute or even long-term care. Recent initiatives to address fragmentation in care delivery for dual eligibles, including the Center for Medicare and Medicaid Innovation and the Medicare-Medicaid Coordination Office within the Centers for Medicare and Medicaid Services (CMS), aim to integrate benefits and align financing among both programs. These efforts hold potential to help the two programs work together to address cost and quality but need to recognize the diversity in the dual eligible population that may call for multiple approaches.

This brief was prepared by Teresa A. Coughlin, Timothy Waidmann, and Lokendra Phadera of The Urban Institute and Rachel Garfield and Barbara Lyons of the Kaiser Commission on Medicaid and the Uninsured. An accompanying article drawing on these findings appears in an April 18, 2012 *Health Affairs* Web Exclusive.

**Table 1**

**Selected Characteristics of Medicaid-Medicare Dual Eligibles and Other Medicare Beneficiaries, 2007**

	All Medicare Beneficiaries			Dual Eligibles			
	All (column %)	Dual (column %)	Non-dual (column %)	< 65 (column %)	65 + (column %)		
N	44,327,346	8,896,020	35,431,326	***	3,333,854	5,562,166	###
Dual Status							
Full Medicaid benefits	12.1	76.3	NA		80.6	73.6	###
Medicare Savings Plan	3.6	22.5	NA		18.7	24.8	###
Unknown	0.2	1.2	NA		0.7	1.5	##
Non-Dual	84.1	NA	100.0		NA	NA	
Functional Status							
No ADLs	77.8	56.7	81.8	***	66.5	50.9	###
1-2 ADL	12.9	18.1	11.9	***	20.4	16.8	#
3 + ADL	9.3	25.1	6.3	***	13.1	32.3	###
Living Arrangement							
Community	94.3	79.2	97.1	***	87.9	74.0	###
Institution	4.3	17.0	1.9	***	9.3	21.7	###
Both	1.4	3.8	1.0	***	2.8	4.3	#
Age							
< 65	16.0	37.5	11.9	***	100.0	NA	
65 and over	84.0	62.5	88.1	***	NA	100.0	
Gender							
Male	44.6	35.7	46.3	***	48.1	28.3	###
Female	55.4	64.3	53.7	***	51.9	71.7	###
Ethnicity							
White non-Hispanic	79.4	59.5	83.2	***	61.7	58.3	
Black non-Hispanic	9.2	18.6	7.4	***	22.3	16.4	###
Hispanic	6.5	13.1	5.3	***	9.6	15.2	###
Other	4.9	8.8	4.2	***	6.5	10.1	##
Family Structure							
Married	52.0	20.4	57.9	***	15.8	23.2	###
Single/Divorced/Separated/Widowed	47.6	79.4	41.6	***	83.8	76.8	###
Income							
\$10,000 or less	15.4	53.4	8.3	***	58.1	50.5	###
\$10,001 - 20,000	27.2	39.1	24.9	***	35.0	41.6	###
\$20,001 or more	57.4	7.5	66.8	***	6.9	7.9	

SOURCE: MSIS-MCBS 2007 linked file.

Weighted.

NOTE:

NA: Not applicable.

Totals may not sum to 100 percent due to rounding and exclusion of missing values.

\*(\*\*)(\*\*\*) Medicaid-Medicare Dual beneficiaries are significantly different from other Medicare beneficiaries at the .10 (.05) (.01) level, two-tailed test.

#(##)(###) Non-elderly dual beneficiaries are significantly different from elderly dual beneficiaries at the .10 (.05) (.01) level, two-tailed test.

**Table 2**  
**Service Use and Spending Patterns by Dual Eligibles, 2007**

	Per Capita Spending (\$)			Per User Spending (\$)			Total Spending (\$ millions)			Share Medicaid
	Combined	Medicare	Medicaid	Combined	Medicare	Medicaid	Combined	Medicare	Medicaid	
<b>Total Spending</b>	29,868	15,850	14,018	30,347	16,474	17,323	265,702	141,000	124,703	46.9%
<b>Acute Care</b>	17,227	13,783	3,444	17,504	14,329	4,368	153,252	122,615	30,637	20.0%
Inpatient Care	8,312	7,864	448	26,839	27,815	4,017	73,945	69,957	3,988	5.4%
Ambulatory Care	3,928	2,629	1,299	4,155	2,863	2,156	34,942	23,384	11,558	33.1%
Prescription Drugs	2,961	2,878	83	3,390	3,738	224	26,342	25,601	741	2.8%
Other Acute Care (includes capitation)	2,026	413	1,613	2,622	1,038	2,398	18,024	3,673	14,350	79.6%
<b>Sub-Acute Care</b>	2,531	2,067	464	11,763	11,625	7,924	22,514	18,385	4,129	18.3%
Skilled Nursing Facility	1,139	1,139	NA	12,686	12,686	NA	10,133	10,133	NA	0.0%
Home Health Care	1,392	928	464	8,561	7,584	7,924	12,381	8,252	4,129	33.4%
<b>Long-Term Care</b>	10,110	NA	10,110	33,689	NA	33,689	89,936	NA	89,936	100.0%
Institutional Care	6,789	NA	6,789	42,410	NA	42,410	60,393	NA	60,393	100.0%
Community-Based Care	3,321	NA	3,321	21,242	NA	21,242	29,543	NA	29,543	100.0%

Source: MSIS-MCBS 2007 linked file. Medicare spending adjusted to 2007 National Health Expenditure Accounts (NHE).

Notes: Weighted.

NA: Not applicable.

*Medicare ambulatory services* include Medicare physician and outpatient services. Medicaid ambulatory services include clinic, mid-wife, nurse practitioner, other practitioner (chiropractors, podiatrists, psychologist, and optometrists), outpatient, and physician services.

*Medicare other acute services* includes hospice, durable medical equipment and capitation payments. Medicaid other acute services includes hospice, transportation, therapy (speech/language, occupations, physical), targeted case management, religious non-medical, rehabilitation, private-duty nursing, primary care case management, pre-paid health plans, lab/x-ray, HMO, dental, abortion and other services such as prosthetics and eyeglasses.

*Medicaid long-term institutional services* includes nursing facilities, intermediate care facilities for mentally retarded (ICF-MR), and IMD services. *Medicaid long-term community-based services* include personal care and home and community-based services (HCBS).

## APPENDIX

### Data

For this study, we relied on two data sources: 1) the 2007 Medicare Current Beneficiary Survey (MCBS) that has been adjusted to reflect National Health Expenditures and 2) the 2007 Medicaid Statistical Information System (MSIS) Summary File that has been adjusted to Medicaid spending as reported in the CMS-64.

The MCBS provides detailed information on spending by Medicare and Medicaid, as well as spending by other payment sources such as private insurance or beneficiary out-of-pocket spending. In this study, however, we focus on spending by public programs. As such, our analysis examines only spending for Medicare beneficiaries that is paid by Medicare, and for dual eligibles only spending paid by Medicare and by Medicaid. Limiting spending to what is paid for by Medicare and Medicaid explains why we find that other Medicare beneficiaries (non-dual eligibles) have no long-term care spending. If we included spending by other sources (e.g., out-of-pocket or private LTC insurance) other Medicare beneficiaries would show spending for LTC services, as well as higher spending on other services.

*MCBS.* The MCBS is a survey of a nationally representative sample of Medicare beneficiaries. It is conducted annually by the Centers for Medicare & Medicaid Services (CMS)<sup>9</sup> and collects a wealth of information, including expenditures and sources of payment for all services used by Medicare beneficiaries, as well as the types of health insurance coverage beneficiaries had over the course of the year.

For this analysis we used the 2007 MCBS Cost and Use (CU) file, which provides information on Medicare beneficiaries who were ever enrolled in the program during the calendar year. This includes those who died before the end of the year, as well as those who enrolled during the year. The CU file, which is a combination of MCBS survey and Medicare administrative data, contains information on several health care services used and their associated costs, as well as a wide variety of information on health status, social and demographic characteristics. It also includes information on prescription drugs and long term care (LTC) services. To account for the problem of underreporting of medical service use associated with personal interview surveys<sup>10</sup>, MCBS survey data are matched with more accurate administrative bill data, and missing or under/over-reported information are filled-in if not matched. For this study, we used several data elements from the 2007 CU file, including demographics, living arrangement, income, functional status, and Medicare spending.

While the MCBS collects information on Medicaid spending, as we will discuss below, we relied on the MSIS for Medicaid spending information. Although the MCBS contains self-reported data on Medicaid spending, it does not provide accurate spending information for home and community-based waiver programs, an important expenditure item for the dual population. For this reason we relied exclusively on MSIS for Medicaid spending information for the study.

In our analysis we found that the MCBS underestimated the national estimates of personal health care expenditures by Medicare. To address this problem, we matched our 2007 Medicare spending estimates to the 2007 National Health Expenditure (NHE) accounts by type of service. Specifically, we took the ratio between our estimate and NHE's record, in particular the Personal Health Care Expenditures

account, for each service and used it to inflate or deflate Medicare spending on that service by both dual eligibles and non-dual eligibles. Importantly, even with the adjustment to the NHE, our Medicare spending estimates do not include Medicare special payments such as hospital disproportionate share (DSH) or graduate medical education payments.

*MSIS.* For Medicaid information we relied on the 2007 Medicaid Statistical Information System (MSIS) Summary File, which covers the 2007 federal fiscal year—that is, October 1, 2006 to September 30, 2007. Under federal Medicaid law, all 50 states and the District of Columbia are required to submit Medicaid eligibility and claims data to the Centers for Medicare and Medicaid Services (CMS) on a quarterly basis. Once received by the CMS, the data are subject to quality assurance edits and validity checks. For each federal fiscal year, the MSIS Summary File contains individual level data with aggregate measures of Medicaid expenditures for 30 service categories, including ambulatory, acute and institutional services, for all persons who received Medicaid services nationwide. For complete Medicaid service expenditures, we matched the MSIS service expenditures to those reported in the CMS-64. The CMS-64 is considered a more accurate financial data source for Medicaid service spending than MSIS because states use CMS-64 data to receive their federal matching payments. By benchmarking to the CMS-64, our expenditure estimates include special payments made by Medicaid such as hospital DSH payments.<sup>11</sup>

Expenditures reported in MSIS include payments made to providers on behalf of dual eligibles for Medicare cost-sharing but they do not include payments to Medicare for premiums. To account for these payments, we calculate premiums paid by Medicaid to Medicare for each acute and sub-acute care services, reduce those amounts from their respective spending categories in Medicare, and add them to Medicaid spending categories. Also, for dual eligibles enrolled in managed care, MSIS only includes capitation payments. No information on spending by type of service is available for dual eligibles in capitated managed care. While a limitation, less than 12 percent of dual eligibles were in enrolled in capitated Medicaid managed care arrangements in 2009.<sup>12</sup>

In addition to expenditure data, the MSIS Summary File contains information on the personal characteristics of Medicaid beneficiaries such as date of birth, sex, and race/ethnicity, as well as state and county of residence. MSIS also includes eligibility information that specifies why an individual is enrolled in Medicaid. We know, for example, if dual individuals are enrolled because they are disabled or aged. To identify whether the beneficiary was a full-benefit dual or a Medicare Savings Plan beneficiary, we used the MSIS variable that describes a beneficiary's most recent or "last-best" monthly eligibility code.

*Linking the MCBS with the MSIS.* Using the MCBS as the base file, we linked it to the MSIS to derive our sample of individuals enrolled in both Medicare and Medicaid in 2007. We used a crosswalk of unique identifiers in each of the two datasets that was provided to us by CMS. Specifically, we used the MCBS BaseID, the MSIS\_ID, gender, and date of birth (allowing a difference of 31 days), for the match. Due to unavailability of Medicaid spending data for US territories other than the 50 states and the District of Columbia, of the 11,995 Medicare beneficiaries in the 2007 MCBS CU file, 207 beneficiaries from Puerto Rico were excluded. The CMS crosswalk file included both full benefit dual eligibles and enrollees in Medicare Savings Programs, sometimes referred to as "partial dual eligibles."

After identifying potential dual eligibles, we excluded cases that did not match on the crosswalk variables in both the MCBS and MSIS. Further, some dual beneficiaries had Medicaid records in more than one state in the MSIS. In these cases, we combined a beneficiary's spending across states and

reported as a single record. The final number of dual eligibles from the linked MCBS-MSIS file we used in the analysis was 2,531.

As mentioned, the MCBS captures spending in a particular calendar year whereas MSIS captures spending in a federal fiscal year, which runs October 1 to September 30. Thus while we analyze 12 calendar months' worth of spending from each dataset, the timing of spending information between the programs is off by three months with some of the Medicaid spending being in the last quarter of 2006. While an admitted shortcoming, the study data still provide relative estimates of Medicare and Medicaid spending for dual beneficiaries over a given time period.

## **Methods**

Sub-acute and long-term care services are divided into institutional and community-based care. Institutional care is provided by nursing facilities, intermediate care facilities for the mentally retarded (ICF-MR) and institutions for mental disease (IMD). Because of the fundamental difference in the nature and duration of these benefits we separate the Medicare and Medicaid covered services in our calculations.<sup>13</sup> Community based care is divided into home health services, covered by both Medicaid and Medicare, personal care services (Medicaid only), and long-term care provided under Medicaid's home and community based service (HCBS) waiver programs.

All analyses presented are weighted using the MCBS cross-sectional weight.<sup>14</sup> While this weight is intended for use in cross-sectional statistics involving the total (combined) national sample, it also can be used for analyzing representative subgroups. Given the relatively high match rate between the MCBS and the MSIS, we feel the combined data file is a representative sample of the national dual eligible population.

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## **NOTES**

<sup>1</sup> Rousseau, D, L Clemans-Cope, E Lawton, J Langston, J Connolly, and J Howard. 2010 "Dual Eligibles: Medicaid Enrollment and Spending for Medicare Beneficiaries in 2007." Kaiser Commission on Medicaid and the Uninsured, Washington, D.C., December. Kaiser Family Foundation. 2011 "The Role of Medicare for People Dually Eligible for Medicare and Medicaid." Washington, DC, January.

<sup>2</sup> Kaiser Commission on Medicaid and the Uninsured, "Proposed Models to Integrate Medicare and Medicaid Benefits for Dual Eligibles: A Look at the 15 State Design Contracts Funded by CMS," Aug., 2011, available at <http://www.kff.org/Medicaid/8215.cfm>; Kaiser Commission on Medicaid and the Uninsured, "Financial Alignment Models for Dual Eligibles: An Update," Nov., 2011, available at <http://www.kff.org/medicaid/8260.cfm>

<sup>3</sup> Coughlin, TA, T Waidmann, and MO Watts. 2009. "Where Does the Burden Lie? Medicaid and Medicare Spending for Dual Eligible Beneficiaries." Kaiser Commission on Medicaid and the Uninsured, Washington, D.C., April.

<sup>4</sup> A detailed explanation of the data used in the analysis is provided in the Appendix.

<sup>5</sup> Kaiser Commission on Medicaid and Uninsured. 2010. "Dual Eligibles: Medicaid's Role for Low-Income Beneficiaries." Washington D.C., December.

<sup>6</sup> Health conditions examined were diabetes, heart disease, COPD/lung disease, mental illness, Alzheimer's, and mental retardation.

<sup>7</sup> Utilization measures only services paid for by Medicare or Medicaid. Health care services paid for private insurance or out of pocket by individuals are not included.

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<sup>8</sup> Coughlin, TA, T Waidmann, and MO Watts. 2009. "Where Does the Burden Lie? Medicaid and Medicare Spending for Dual Eligible Beneficiaries." Kaiser Commission on Medicaid and the Uninsured, Washington, D.C., April.

<sup>9</sup> For more information on the MCBS see [http://www.cms.gov/LimitedDataSets/11\\_MCBS.asp](http://www.cms.gov/LimitedDataSets/11_MCBS.asp).

<sup>10</sup> Survey respondents may forget some medical services used and might find it hard to recall those events during interviews, especially if the incidents are minor and for recall periods that are very long. Given the complex payment system the US health care system has, it might be even harder for the respondents to recall expenditures for medical services used. For more on the matching of MCBS survey data with Medicare claims see Eppig, Franklin J. and Brad Edwards. "Computer Matching of Medicare Current Beneficiary Survey Data with Medicare Claims." IN. Richard Warneck, ed. "Health Survey Research Methods: Conference Proceedings." DHHS Publication Number 96-1013. National Center for Health Statistics, U.S. Department of Health and Human Services, Hyattsville, MD. 1996.

<sup>11</sup> Thus, while Medicaid spending estimates are adjusted for special program payments, as mentioned, Medicare spending estimates are not, an admitted shortcoming.

<sup>12</sup> Centers for Medicare & Medicaid Services (CMS). 2009. "2009 Medicaid Managed Care Enrollment Report." Washington, D.C., June.

<sup>13</sup> Medicare does not cover long term care, but does pay for institutional and community based care after hospital stays. Institutional post-acute care is covered for a limited duration by the Medicaid skilled nursing facility benefit while community based care for home-bound individuals is covered by the Medicare home health benefit. Medicaid covers a wider range of long-term care services.

<sup>14</sup> Based on the number of dual eligibles identified in the MSIS, the MCBS cross-sectional weight underestimates number of dual eligibles and hence services use and spending by them. As a result, number of dual eligibles estimated is 26 percent less than the actual administrative records. Some of this difference can be made up by including so-called "ghost" records from the MCBS – donor records from other sample members intended to make the MCBS population and spending estimates match administrative totals. Tabulations of demographic characteristics and per capita spending among the dual-eligible "ghosts" finds them to be quite similar to the matched sample. Assuming that the missing/non-estimable dual eligibles have same characteristics and service use patterns as the non-missing/estimable dual eligibles, we inflate our estimates for total number of dual eligibles and their total spending by 26 percent.

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