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Chronic Disease and Co-Morbidity Among Dual Eligibles: Implications for Patterns of Medicaid and Medicare Service Use and Spending

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EXECUTIVE SUMMARY

With the passage of health reform, new provisions are directed at improving the delivery and coordination of services for persons enrolled in both Medicaid and Medicare, otherwise known as dual eligibles. Dual eligibles constitute a costly segment of beneficiaries for both programs and include individuals with some of the most severely disabling chronic conditions. While the higher costs associated with services to dual eligibles is well-known, information on how spending distributes across these programs is less understood. This analysis uses linked Medicare and Medicaid data to provide a clearer picture of the chronic physical and mental conditions and multiple co-morbidities that create substantial needs for medical and long-term services among dual eligibles, and provides information about the financial contribution of both Medicare and Medicaid in meeting these needs.

Findings:

Co-morbidity among dual eligibles is common and more likely for older duals. Three in five dual eligibles have multiple chronic physical conditions and 20 percent have more than one mental/cognitive condition (Figure 1). In contrast, roughly half of all other Medicare beneficiaries have more than one chronic physical condition and only 5 percent have more than one mental/cognitive condition. Almost 2 in 5 dual eligibles have both a physical and mental disease or condition compared to only 17 percent of all other Medicare beneficiaries. Duals age 80 or older are more likely to have multiple chronic conditions compared to younger duals (Figure 2). Half of persons age 80 or older have both physical and mental/cognitive conditions, compared to about a third of younger dual eligibles. Co-morbidity of physical and mental health conditions increases care complexity and poses additional problems in coordination and access to needed services.

Figure 1

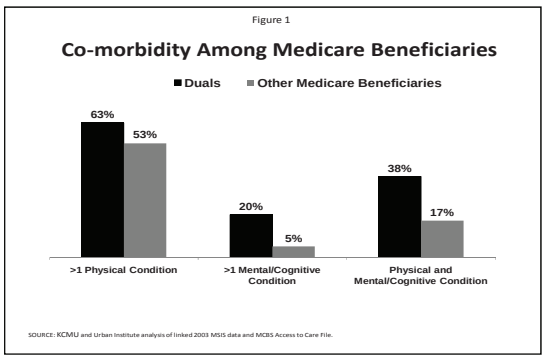
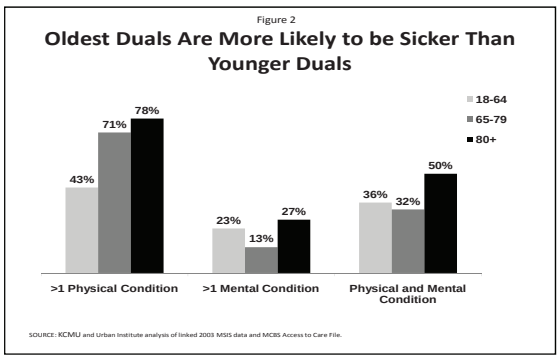


Figure 2



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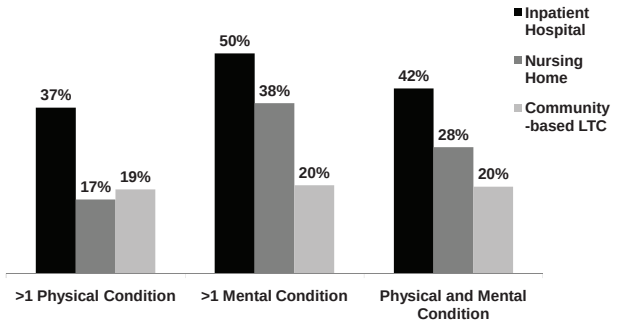
Significant co-morbidities among dual eligibles make service use high and care coordination across Medicare and Medicaid particularly challenging. Duals with chronic physical and mental/cognitive conditions rely on a wide range of Medicare and Medicaid services to meet their acute and long-term services and supports needs. Half of persons with multiple mental/cognitive conditions and close to two-fifths of those with multiple physical or both physical and mental/cognitive conditions were hospitalized during the year (Figure 3). Use of Medicaid nursing home and community-based services was also higher for duals with multiple chronic conditions. A high percentage of duals relied on Medicare physician/outpatient services and Medicaid prescription drug coverage. More than 75 percent of persons with multiple conditions relied on Medicaid to pay for Medicare deductibles and co-payments for physician and inpatient services.

Figure 3

Selected Medicaid and Medicare Service Use by Duals with Chronic Conditions

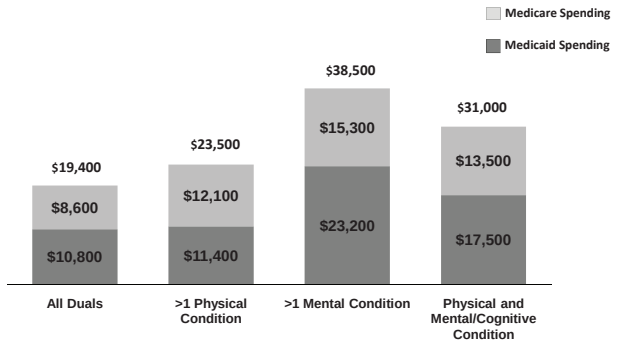


SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Medicare and Medicaid per capita spending is substantially higher for dual eligibles with multiple chronic conditions, particularly when mental/cognitive conditions are present. Annual mean per person spending for all dual eligibles was $19,400, with Medicaid covering slightly more than half (56%) of spending (Figure 4). Spending for persons with more than one mental/cognitive condition rose to $38,500, and reached $31,000 for those with both physical and mental/cognitive conditions. The proportion of costs covered by Medicaid was consistently above 50 percent (with the exception of persons with multiple physical conditions). Overall mean spending was similar for younger and older dual eligibles, although Medicaid covered a slightly higher proportion of spending for younger duals.

Figure 4

Total Medicaid and Medicare Spending Per Dual Eligible by Chronic Condition

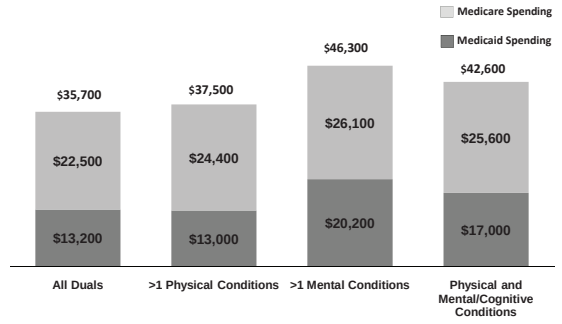


SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Duals with multiple chronic conditions rely more heavily on Medicare for hospital services and turn to Medicaid to provide long-term services and supports. Mean spending was $35,700 for duals with at least one hospital stay, and exceeded $40,000 for those with multiple mental/cognitive conditions, or both physical and mental/cognitive conditions (Figure 5). Medicaid's proportion of spending was lower in these individuals – 37 percent for all dual eligibles with a hospital stay. By contrast, Medicaid covered a much higher proportion of expenditures for dual eligibles using home and community-based services or institutional care (67% and 77% respectively) (Figure 6). Mean expenditures were highest for duals using institutional care.

Figure 5

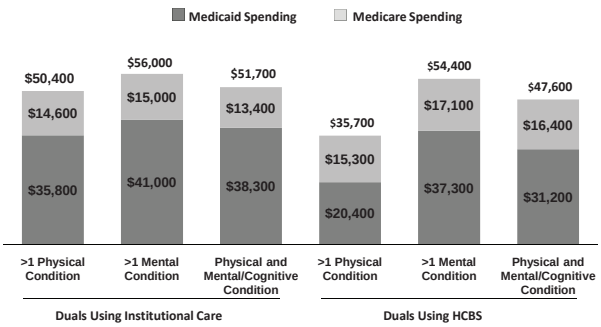
Total Medicaid and Medicare Spending Per Dual Eligible with a Hospital Stay



SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Figure 6

Total Medicaid and Medicare Spending Per Dual Eligible Using Long-Term Care



SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Discussion and Policy Implications

This analysis highlights the significant co-morbidity among dual eligibles which create substantial needs for comprehensive medical and supportive services and make care coordination across Medicaid and Medicare a challenge. Duals with multiple chronic conditions rely heavily on Medicare physician and hospital services and turn to Medicaid to meet their long-term care needs. Institutional service use is highest among older duals with multiple mental/cognitive conditions, and Medicaid community-based long-term services are now used by close to 20 percent of dual eligibles. With the passage of health reform and new provisions directed at improving the delivery of services and care coordination for this population (for example, through expanded home and community-based services in Medicaid, a new medical homes grant program and a new office dedicated to the duals within CMS) the duals will continue to be a focus of state and federal policy in the years ahead.

For this study, we relied on two data sources: the 2003 Medicare Current Beneficiary Survey (MCBS) and the 2003 Medicaid Statistical Information System (MSIS) Summary file. By linking these two data sources we derived a sample of 3,295 individuals enrolled in both Medicaid and Medicare in 2003.

INTRODUCTION

Persons enrolled in both Medicaid and Medicare, otherwise known as dual eligibles, constitute a large and costly segment of beneficiaries for both programs. At approximately 8.8 million low-income seniors and persons with disabilities, dual eligibles account for only 18 percent of Medicaid enrollment, but 46 percent of Medicaid spending[1] and just 20 percent of Medicare enrollment, but 28 percent of Medicare expenditures.[2] Their high health care costs and broad-ranging needs have made dual eligibles a focus of state and federal policy attention in recent years. As of January 1, 2006, prescription drug coverage for duals shifted from Medicaid to Medicare as part of Medicare Part D implementation,[3] but required that states make a substantial payment to offset the federal government's new financial responsibility for this population. Also under the Medicare Modernization Act of 2003, a new type of plan – the Medicare Advantage Special Needs Plan (SNP) – was authorized which was targeted to dual eligibles (and two other special-needs populations) with the objective of better coordinating Medicare and Medicaid benefits.[4]

While the higher costs associated with services to dual eligibles in both the Medicare and Medicaid programs is well-known, information on how spending distributes across these programs is meager, except in the aggregate. The large role played by Medicaid in paying for long-term care, nursing home care in particular, is clear for example. But how the resources of these two programs come together to pay for services to dual eligibles with various needs is not well understood. Furthermore, a more fine-grained understanding of the chronic medical conditions and mental/cognitive impairments that create needs for services that span the acute and long-term support service spectrum is lacking.

One major impediment has been the lack of integrated Medicare and Medicaid data. This study uses a unique linkage of Medicare and Medicaid data to provide a national picture of service use and spending under these two programs for dual eligibles with chronic physical and mental conditions and multiple co-morbidities. This approach provides significant new information about the continuum of care needs of dual eligibles and the financial contribution of both Medicare and Medicaid in meeting these needs.

STUDY DATA AND METHODS

Data. This study used data from the Medicare Current Beneficiary Survey Access to Care (MCBS AC) file (Calendar Year 2003) linked to the Medicaid Statistical Information System (MSIS) (Fiscal Year 2003). The MCBS Access to Care sample is nationally representative of Medicare beneficiaries who were enrolled for all of 2003 (persons who died or were newly enrolled during the year are excluded). By identifying all individuals in the MCBS who were also in the MSIS, we developed a nationally representative sample of dual eligibles.

The Centers for Medicare and Medicaid Services provided a crosswalk between the unique individual identifiers in each dataset. Of the 16,003 individuals in the 2003 MCBS file, 3,667 were found in the MSIS. We excluded from analysis 48 cases that were linked in the crosswalk but did not match on either birth date (allowing a 31 day difference) or gender across the administrative files. Some recipients have records in more than one state in the MSIS, and in

these cases we totaled spending across states into one record. In addition, we excluded all cases from Maryland, where 2003 data on Medicaid spending was unavailable in the MSIS (n=28), persons in Medicare Managed Care for calendar year 2003 for whom Medicare claims were unavailable (n=227), and persons under 18 years of age (n = 5). The final analytic sample of dual eligibles available for analysis was 3,295.

All Medicare service use and expenditures are drawn from claims data linked to the MCBS sample. The MSIS contains records for all Medicaid beneficiaries enrolled during Fiscal Year 2003 and was the source for Medicaid spending and services for dual eligibles. Each file provides annual spending and service use although the time frames are not perfectly aligned. Medicare data reflects calendar year 2003, while MSIS data reflects fiscal year 2003 (October 1, 2002, through September 30, 2003).

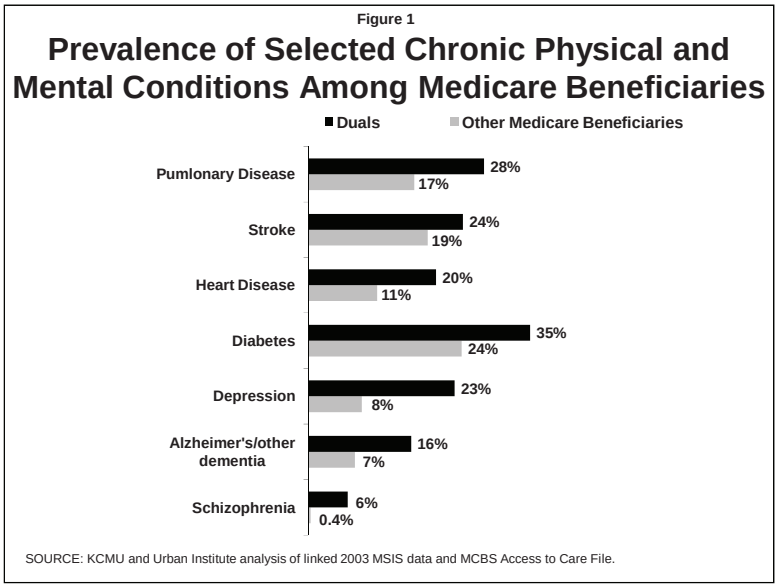
Information on individual characteristics, including age and race/ethnicity, is from the MCBS. Variables reflecting physical and mental/cognitive chronic health conditions were constructed using ICD-9 codes from both Medicare and Medicaid claims, and from MCBS interview data. ICD-9 codes were assigned to eighteen condition groups based on approaches used in CMS's Chronic Condition Warehouse and previous research. In addition, MCBS data on selected conditions (diabetes, stroke, Alzheimer disease, osteoarthritis or rheumatoid arthritis, or Parkinson's disease) self-reported by persons who were in the community, or recorded in facility record data for persons in institutional settings, also were considered as indicators of presence of diseases/conditions. (A table showing assignment of ICD-9 codes and interview reports to condition groups is available on request from the authors). Thirteen of these condition groups reflect chronic physical conditions and five reflect chronic mental/cognitive conditions. The groupings are not mutually exclusive so individuals with multiple conditions will be represented in more than one. To show the impact of multiple physical or multiple mental/cognitive conditions, and the impact of both physical and mental/cognitive conditions, variables reflecting co-morbidity also were created from the specific condition indicators.

Analysis. Data are weighted to provide estimates that are nationally representative of dual eligibles. Cell estimates based on fewer than 30 cases are not shown (required by CMS for reasons of confidentiality; estimates based on fewer than 30 cases also do not meet standard criteria for statistical precision). Tests of significance in Tables 1 and 2 comparing condition prevalence between dual eligibles and other Medicare beneficiaries are based on the adjusted Wald F test.

FINDINGS

Prevalence of physical and mental/cognitive conditions. With few exceptions, prevalence of chronic physical and mental/cognitive diseases and conditions is significantly higher among dual eligibles compared to all other Medicare beneficiaries (Table 1 and Figure 1). This holds for major physical conditions including pulmonary and heart disease (congestive heart failure and other), stroke, and diabetes. Rarer conditions such as multiple sclerosis, Parkinson's disease, cerebral palsy, and end-stage renal disease also are more prevalent among dual eligibles than other Medicare beneficiaries. Only osteoporosis and arthritis are equally common across these groups.

Figure 1



SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Cognitive conditions including Alzheimer's disease and other dementias, and those considered intellectual disabilities (resulting from mental retardation), are significantly more prevalent among dual eligibles, as are serious mental illnesses such as depression, schizophrenia, and affective and other serious disorders. In all, 43.8 percent of dual eligibles have at least one mental/cognitive condition compared to 18.5 percent of all other Medicare beneficiaries.

Prevalence of conditions varies by age among dual eligibles in expected ways. Stroke, heart disease, arthritis, and Parkinson's and Alzheimer's disease are more prevalent among older dual eligibles. Over 90 percent of duals age 65 and older have at least one chronic physical condition. Serious mental disorders and intellectual disabilities are more prevalent among younger dual eligibles. About half of dual eligibles ages 18-64 and 80 or older have at least one mental/cognitive condition; the percentage is closer to one-third for those ages 65-79.

Table 1. Prevalence of Chronic Physical and Mental/Cognitive Conditions Among Dual Eligibles by Age and Overall Compared to All Other Medicare Beneficiaries

Chronic Conditions	Dual Eligibles[1] 18-64	65-79	80+	All	All Other Medicare Beneficiaries[1]
Total (in thou)	2,415	2,698	1,468	6,581	26,336
Physical Conditions					
Pulmonary Disease	22.3	31.3	29.0	27.5*	16.6
Stroke	15.9	26.4	34.0	24.2*	18.7
Congestive Heart Failure	10.2	20.5	34.2	19.8*	10.8
Other Heart Disease	15.7	36.1	42.8	30.1*	28.0
Diabetes	27.1	41.4	35.0	34.7*	24.0
Hip/Pelvic Fracture	---	---	5.2	2.0*	1.4
Selected Cancers[2]	---	8.5	5.5	5.5*	9.0
Osteoporosis	4.6	12.1	21.3	11.4	11.2
Osteo- or Rheumatoid Arthritis	48.9	71.9	69.2	62.0	61.8
Multiple Sclerosis	2.2	---	---	1.3*	0.3
Parkinson's Disease	---	3.6	6.8	3.1*	1.6
Cerebral Palsy	2.4	---	---	1.0*	---
End Stage Renal Disease (ESRD)	2.4	---	---	1.0*	---
Total with any physical conditions	72.2	91.5	94.3	85.1	83.3
Mental/Cognitive Conditions					
Alzheimer's/other dementia	5.8	12.9	39.0	16.1*	7.3
Depression	27.6	17.4	25.3	22.9*	8.4
Intellectual disabilities[3]	6.7	---	---	3.1*	---
Schizophrenia	11.8	3.5	---	6.2*	0.4
Affective and other serious disorders	27.1	17.1	21.4	21.7*	8.3
Total with any mental/cognitive conditions	49.2	34.1	52.5	43.8*	18.4

SOURCE: Estimates based on weighted data from linked 2003 MSIS data and MCBS Access to Care File.
NOTES: Statistical significance denotes difference from All Other Medicare Beneficiaries using adjusted Wald F test.
* $p < 0.05$
--- Fewer than 30 cases unweighted.
[1]Excludes persons enrolled in Medicare Managed Care Organizations at any time during CY2003 because Medicare claims are not available (approximately 500,000 Dual eligibles and 4.7 million Other Medicare beneficiaries).
[2]Breast, colorectal, prostate, lung and endometrial.
[3] Mental retardation.

Comorbidity among dual eligibles. Recent studies have focused attention on the challenges to Medicare posed by the high prevalence of chronic conditions among beneficiaries.[5] Dual eligibles characteristically have multiple chronic conditions (Table 2). Among persons with any of the chronic physical conditions listed in Table 1, 62.5 percent have more than one condition (Figure 2). Among persons with any mental/cognitive condition, 19.7 percent have more than one. Furthermore, almost 2 of 5 dual eligibles (37.5%) have both physical and mental diseases or conditions. By contrast half of all other Medicare beneficiaries have more than one physical condition, just 5 percent have more than one mental/cognitive condition, and only 17 percent of all other Medicare beneficiaries have both physical and mental conditions (data not shown in table). Table 2 also shows that 8.6% of dual eligibles have conditions or diseases other than those specified in Table 1. Several studies have documented the implications of multiple co-morbidities for poor health outcomes such as risks of disability[6] and increased costs of care.[7,8] Recent research also shows that the physical health of persons with severe mental illness is often compromised.[9] Co-morbidity of physical and mental health conditions increases care complexity and poses additional problems in coordination and access to needed services.[10]

Figure 2

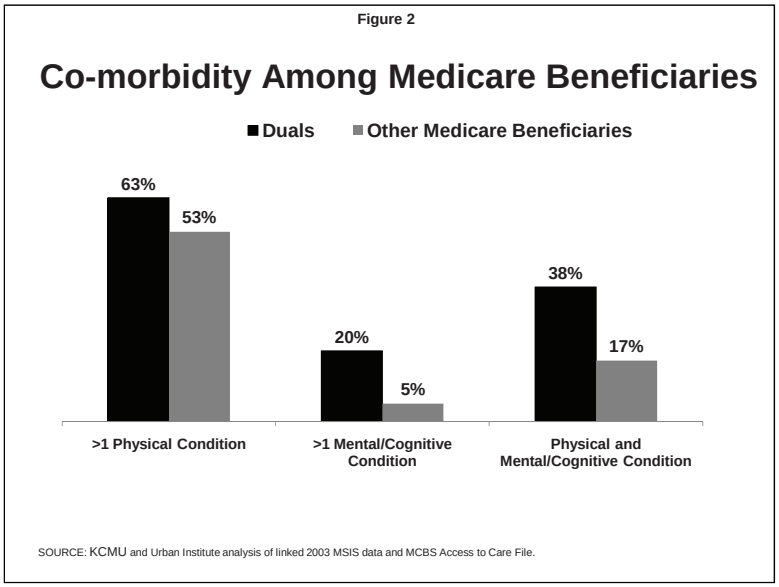


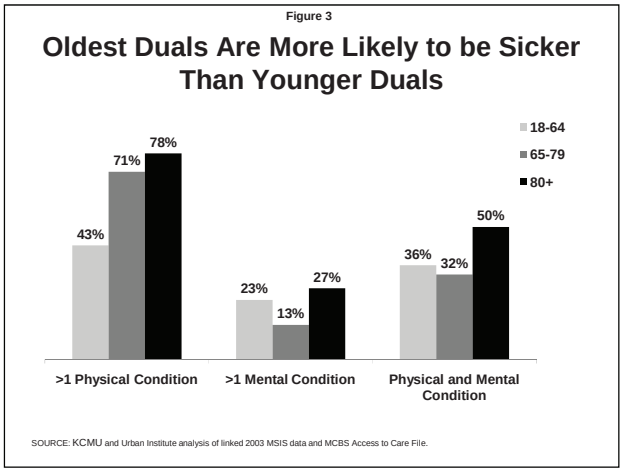
Table 2. Chronic Physical and Mental/Cognitive Conditions Among Dual Eligibles by Age, Gender and Race/Ethnicity

Demographics	%	Selected Physical Conditions:		Selected Mental/Cognitive Conditions:		Selected Physical and Mental/ Cognitive	Other conditions not specified[1]
		1	>1	1	>1		
Total	100.0%	22.6%	62.5%	24.1%	19.7%	37.5%	8.6%
N (in thou)	6,581	1,487	4,113	1,586	1,296	2,468	566
Age							
18-64[2]	36.7%	29.0	43.3	26.6	22.6	35.7	14.2
65-79	41.0%	20.3*	71.2*	21.1*	13.1*	32.2	6.5*
80+	22.3%	16.1*	78.2*	25.5	27.0*	50.3*	---
Gender							
Male[2]	37.0%	24.8	51.5	23.6	18.5	32.6	14.2
Female	63.0%	21.3*	69.1*	24.4	20.4	40.4*	5.3*
Race/ethnicity[3]							
White non-Hispanic[2]	60.6%	22.7	62.8	25.8	24.8	43.0	6.8
Black non-Hispanic	21.9%	24.6	60.9	22.4	13.1*	31.1*	10.2
Hispanic	11.1%	18.2	63.9	19.9	10.7*	26.2*	13.5*

SOURCE: Estimates based on weighted data from linked 2003 MSIS and MCBS Access to Care File.
NOTE: Statistical significance denotes difference from reference category using adjusted Wald F test. p<.05
--- Fewer than 30 cases unweighted.
[1] Individuals who have diseases or conditions other than those identified in Exhibit 1.
[2] Reference category.
[3] Excludes 6.4% of dual Eligibles who were of other racial groups or ethnicity.

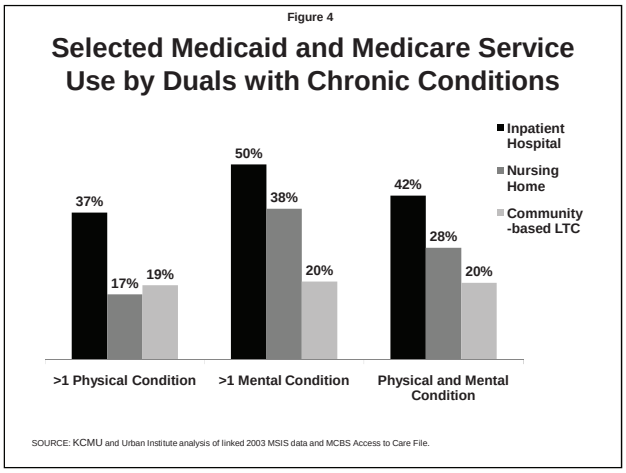
Comorbidity by Age, Gender, and Race/Ethnicity. Older beneficiaries were more likely to have multiple physical conditions, multiple mental/cognitive conditions, as well as both physical and mental/cognitive diseases (Figure 3). Half of persons age 80 or older had both physical and mental/cognitive conditions, compared to about a third of younger dual eligibles. Women were more likely to have multiple physical conditions and were more likely to have both physical and mental/cognitive conditions than men. White non-Hispanics were more likely than either Black non-Hispanics or Hispanics to have multiple mental/cognitive conditions and to have both physical and mental/cognitive conditions.

Figure 3



Medicare and Medicaid Service Use by Dual Eligibles with Chronic Conditions. Dual eligibles rely on services from both Medicare and Medicaid to meet their medical and supportive care needs. Over 90 percent of duals with at least one of the physical or mental/cognitive conditions in Table 1 used physician/outpatient services; virtually all of those with multiple chronic conditions used these Medicare-covered services (Table 3 and Figure 4). Use of inpatient care is substantially greater among those with multiple conditions, however. Almost half of persons with multiple mental/cognitive conditions (49.5%), and close to two-fifths of those with multiple physical (37.3%) or both physical and mental/cognitive (41.6%) conditions were hospitalized during the year. Medicare-covered post-acute care in Skilled Nursing Facilities or through Home Health Agencies was also higher among these groups.

Figure 4



High percentages of dual eligibles rely on prescription drugs as a component of their medical treatment, from 60 to 80 percent. Similarly, covering deductibles and co-payments to enable access to Medicare-covered inpatient and outpatient services is a critical function of Medicaid that enables use of these services by dual eligibles. More than 75 percent of persons with multiple conditions relied on Medicaid to pay for Medicare deductibles and co-pays.

Use of nursing home services was substantially higher for persons with multiple chronic conditions. Twice the percentage of persons used nursing home care if they had multiple physical conditions as opposed to only one (16.6% vs. 8.9%) or multiple mental/cognitive conditions as opposed to one (38.3% vs. 17.1%). Use of home and community-based services was close to 20 percent in the presence of multiple physical conditions or any mental/cognitive conditions regardless of whether individuals had one or more. Other Medicaid services such as dental care or medical transportation were also used by at least half of those with mental/cognitive conditions or multiple physical conditions.

Patterns of service use differed somewhat between younger and older dual eligibles. Older persons were somewhat more likely to be hospitalized in the presence of mental/cognitive conditions than younger eligibles (32.7% vs. 22.5% of those with 1 condition; 52.2% vs. 45.9% of those with multiple conditions). The nature of mental/cognitive conditions varies for these age groups, with Alzheimer's disease being more prevalent among older persons (see Table 1). Older dual eligibles also were substantially more likely to use post-acute care than were younger duals. Not surprisingly, older duals were much more likely to use nursing home care – 54.9 percent of those with multiple mental/cognitive conditions did so -- and more likely to use home and community-based services as well. Both groups relied heavily on Medicaid to pay for services not covered by Medicare and to pay deductibles and co-payments for physician and inpatient services.

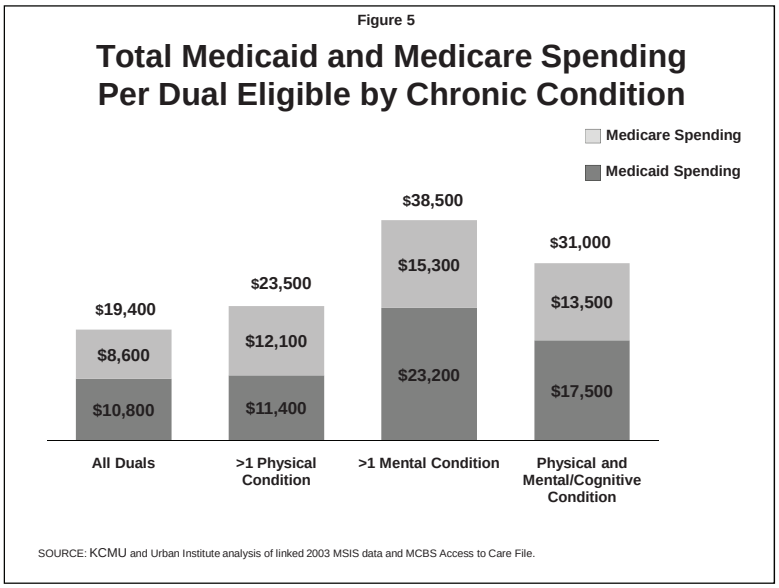
Table 3. Medicare and Medicaid Service Use by Dual Eligibles With Chronic Conditions by Age

Age and types of services	% Using Service Among Those With: Physical Conditions: 1	Physical Conditions: >1	Mental/Cognitive Conditions: 1	Mental/Cognitive Conditions: >1	Physical and Mental/ Cognitive
	% using service:				
All (N in thou)	1,487	4,113	1,586	1,296	2,468
Medicare					
Physician/Outpatient	91.6	98.9	98.8	99.8	99.5
Inpatient Hospital	11.7	37.3	28.6	49.5	41.6
Post-acute (HHA/SNF)	4.6	24.7	19.6	27.1	26.3
Medicaid					
Prescription Drugs[1]	61.4	74.9	74.4	82.7	78.9
Nursing Home	8.9	16.6	17.1	38.3	28.4
Community-based LTC[2]	9.3	18.9	18.6	19.8	19.5
Other Medicaid services[3]	33.6	52.6	52.1	62.6	57.4
Medicare Deductibles/co-pays[4]	71.1	76.4	77.5	83.1	79.3
18-64 (N in thou)	700	1,046	642	546	862
Medicare					
Physician/Outpatient	90.6	97.1	97.7	99.4	99.0
Inpatient Hospital	15.5	38.2	22.5	45.9	39.0
Post-acute (HHA/SNF)	---	14.5	---	11.3	11.1
Medicaid					
Prescription Drugs[1]	65.8	77.9	73.7	86.7	80.6
Nursing Home	6.5	---	---	15.5	10.7
Community-based LTC[2]	11.7	14.2	15.1	16.8	14.6
Other Medicaid services[3]	43.2	56.8	49.1	71.8	59.8
Medicare Deductibles/co-pays[4]	82.2	85.0	84.1	91.3	87.8
65 or older (N in thou)	787	3.067	944	750	1,606
Medicare					
Physician/Outpatient	92.6	99.5	99.6	100.0	99.7
Inpatient Hospital	---	37.0	32.7	52.2	43.0
Post-acute (HHA/SNF)	---	28.2	28.6	38.6	34.4
Medicaid					
Prescription Drugs[1]	57.5	73.8	74.9	79.9	78.1
Nursing Home	11.0	20.3	24.7	54.9	37.9
Community-based LTC[2]	---	20.5	20.9	22.0	22.1
Other Medicaid services[3]	25.1	51.2	54.1	55.8	56.1
Medicare Deductibles/co-pays[4]	61.1	73.5	73.1	77.1	74.7

SOURCE: Estimates based on weighted data from linked 2003 MSIS and MCBS Access to Care File.
--- Fewer than 30 cases unweighted. [1]Data are prior to Part D and the shift of drug coverage for dual eligibles to Medicare. [2] Long-term care (LTC) services including Home and Community-based waiver services, personal care services and Home Health services not covered by Medicare. [3]Services covered by Medicaid but not Medicare including: dental, targeted and primary care case management, prosthetics and eye glasses, medical transportation, etc. [4] Use of Medicaid to pay for deductibles and co-payments for services covered by Medicare.

Medicare and Medicaid Spending by Dual Eligibles with Chronic Conditions. As expected mean annual per person spending was substantially higher for dual eligibles with multiple physical or mental/cognitive conditions, or both (Table 4 and Figure 5). Annual mean per person spending for all dual eligibles was $19,400, with Medicaid covering slightly more than half (55.7%). (All estimates in this table include prescription drug expenditures under Medicaid since data are from 2003. Overall 11.6 percent of all expenditures for dual eligibles went for drugs; data not shown). Spending was lowest for persons with one physical condition ($12,800) but doubled for those with more than one physical condition. Spending for persons with more than one mental/cognitive condition rose to $38,500, and reached $31,000 for those with both physical and mental/cognitive conditions. The proportion of costs covered by Medicaid was consistently above 50 percent (with the exception of persons with multiple physical conditions).

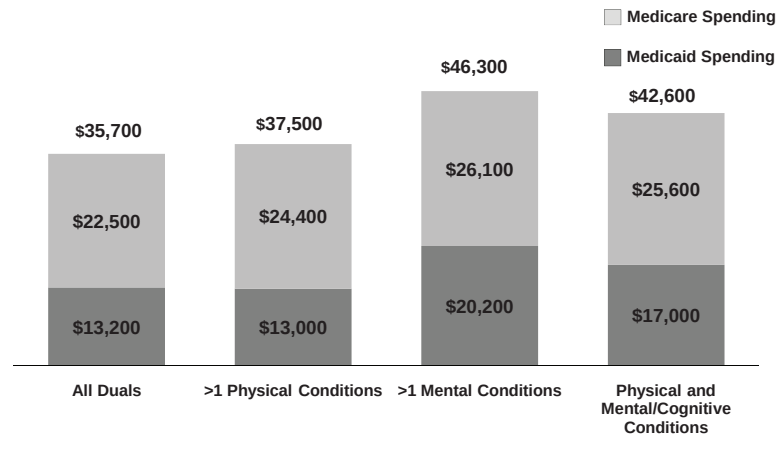
Figure 5



Overall mean spending was similar for younger and older dual eligibles, although Medicaid covered a slightly higher proportion of spending for younger duals. Spending differences by age were greatest for persons with one physical condition; younger persons averaged much higher spending than older individuals. Medicaid covered about ¾ of the costs for persons with one physical condition, for both younger and older duals however; a much higher proportion than for those with multiple physical conditions where higher use of inpatient care (covered by Medicare) decreased Medicaid's contribution. Spending also was higher for older than younger duals with mental/cognitive conditions or both physical and mental/cognitive conditions.

Spending levels and the relative contribution of Medicare and Medicaid to covering expenditures for dual eligibles varies by patterns of service use (Figure 6). Overall mean spending was $35,700 for persons with at least one hospital stay, and exceeded $40,000 for those with multiple mental/cognitive conditions, or both physical and mental/cognitive conditions. Medicaid's proportion of spending was lower in these individuals – 37 percent for all dual eligibles with a stay. Hospitalization remains the largest component of personal health care expenditures nationally (36.8% in 2005)[11] despite declining over the last decade.

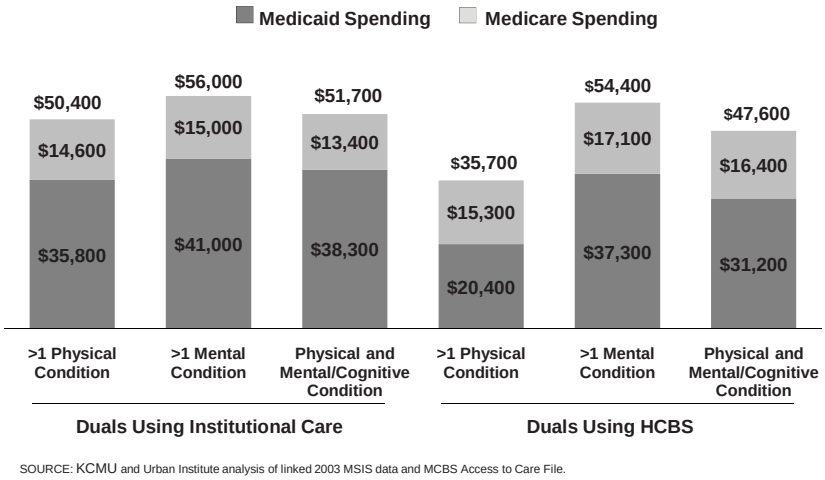
Figure 6



SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

By contrast, Medicaid covered a much higher proportion of expenditures for dual eligibles that used home and community-based services or institutional care (66.6% and 76.7% respectively) (Figure 7). Mean expenditures were highest for duals using institutional care. The proportion of mean expenditures covered by Medicaid for individuals in nursing homes or ICF-MR facilities ranged from about 70 percent to about 90 percent. The proportion covered by Medicaid for persons using Medicaid home and community-based waiver services, personal care or home health was somewhat lower. For persons with both physical and mental/cognitive conditions for example, Medicaid covered 65.6 percent of mean expenses for persons using home and community-based services, and 74.1 percent for those using institutional care.

Figure 7



SOURCE: KCMU and Urban Institute analysis of linked 2003 MSIS data and MCBS Access to Care File.

Mean annual per person spending for persons using long-term care (community or institutional) was also high for dual eligibles with only one physical condition (Table 4). This is due to the fact that the proportion of persons who use Medicaid community-based long-term services or institutional care and have only one physical condition, as opposed to more than one, is much smaller. Table 2 indicates that among all duals with physical conditions, 3 in 5 have more than one. Included within this group of individuals with only one, however, are persons with conditions such as cerebral palsy which result in high needs for community-based services (65% of persons with cerebral palsy used Medicaid community-based services) and institutional care.

Persons with multiple physical conditions were more likely to be hospitalized (Table 3) and as a result had a greater proportion of their costs covered by Medicare. Although persons with multiple mental/cognitive conditions also were more likely to be hospitalized, than persons with only one, these individuals also used more institutional and community-based services paid for by Medicaid. As a result Medicaid covered a larger share of overall expenses, especially for those age 65 or older. The proportion of expenses covered by Medicaid for persons with both physical and mental/cognitive conditions ranged from 39.9 percent for those with at least one hospital stay during the year to 74.1 percent for persons in institutional care.

Table 4. Annual Per Person Spending by Medicare and Medicaid for Dual Eligibles With Chronic Physical and Mental/Cognitive Conditions

	All Dual Eligibles	Physical Conditions: 1	Physical Conditions: >1	Mental/Cognitive Conditions: 1	Mental/Cognitive Conditions: >1	Physical and Mental/ Cognitive
	Annual per person spending					
All Dual Eligibles:						
Total	$19,400	$12,800	$23,500	$22,300	$38,500	$31,000
Medicare	8,600	3,200	12,100	9,400	15,300	13,500
Medicaid	10,800	9,600	11,400	12,900	23,200	17,500
% Medicaid	55.7%	75.0%	48.5%	57.8%	60.3%	56.4%
Ages 18-64						
Total	$19,000	$17,600	$22,600	$18,100	$36,400	$28,200
Medicare	7,800	4,100	13,500	6,000	14,900	12,400
Medicaid	11,200	13,500	9,100	12,100	21,500	15,800
% Medicaid	59.0%	76.7%	40.3%	66.8%	59.1%	56.0%
Ages 65 or older						
Total	$19,700	$8,500	$23,900	$25,100	$40,200	$32,600
Medicare	9,100	2,400	11,600	11,600	15,700	14,100
Medicaid	10,600	6,100	12,200	13,500	24,500	18,500
% Medicaid	53.8%	71.8%	51.0%	53.8%	60.9%	56.8%
Persons with hospital stay:						
Total	$35,700	$27,800	$37,500	$35,200	$46,300	$42,600
Medicare	22,500	13,400	24,400	22,600	26,100	25,600
Medicaid	13,200	14,400	13,000	12,600	20,200	17,000
% Medicaid	37.0%	51.8%	34.7%	35.8%	43.6%	39.9%
Persons using home and community-based services[1]:						
Total	$37,100	$47,000	$35,700	$40,600	$54,400	$47,600
Medicare	12,400	5,600	15,300	12,600	17,100	16,400
Medicaid	24,700	41,400	20,400	28,000	37,300	31,200
% Medicaid	66.6%	88.1%	57.1%	69.0%	68.6%	65.6%
Persons using institutional care[2]:						
Total	$51,000	$53,700	50,400	$44,500	$56,000	$51,700
Medicare	11,900	4,000	14,600	8,000	15,000	13,400
Medicaid	39,100	49,700	35,800	36,500	41,000	38,300
% Medicaid	76.7%	92.6%	71.0%	82.0%	73.2%	74.1%

SOURCE: Estimates based on weighted data from linked 2003 MSIS and MCBS Access to Care File.
NOTE: Dollars rounded to nearest $100.
[1]Based on Medicaid spending for home and community-based waiver services, personal care services, or home health services.
[2] Based on Medicaid spending for nursing facility or ICF-MR services.

DISCUSSION AND POLICY IMPLICATIONS

That dual eligibles in Medicare and Medicaid are high cost for both programs is well known. Not well understood, however, are the underlying reasons for their extensive health and supportive service needs and how Medicare and Medicaid each contribute to paying for services to meet these needs. The dual eligible population includes individuals with some of the most severely disabling chronic conditions. Persons with cerebral palsy and Parkinson's disease, for example, are represented among dual eligibles in much greater proportions than among all other Medicare beneficiaries. Four times as many persons with schizophrenia are found among the dual eligible population as among all other Medicare beneficiaries, a group which includes SSDI beneficiaries under age 65. Particularly striking are the high percentage of persons with mental or cognitive conditions among dual eligibles. Many of these individuals are found among the younger population – 11.8 percent of dual eligibles 18 to 64 years of age have schizophrenia and 6.7% have intellectual disabilities – for example. In all, half of younger dual eligibles have a mental or cognitive condition. Dual eligibles are also striking in their levels of co-morbid conditions -- 3 of 5 dual eligibles have multiple chronic physical conditions and about 2 of 5 have both a physical and mental or cognitive condition.

Chronic physical and mental conditions create substantial needs for medical care to manage the disease process. The disabling aspects of these conditions which interfere with a person's ability to undertake routine daily activities such as dressing and bathing, or preparing meals and taking medications, also result in needs for supportive services. By looking across this entire spectrum of services, the respective roles of Medicare and Medicaid become clearer. Virtually all dual eligibles are seeing physicians and high percentages (70-80% typically) use prescription medications. Hospitalization is much more likely for those with multiple conditions, at close to two-fifths of those with multiple physical conditions or physical and mental/cognitive conditions, and half of those with multiple mental/cognitive conditions. By contrast, only 18 percent of all persons over age 65 were hospitalized in 2003.[12] With recent research on the high rates and costs associated with rehospitalizations among Medicare beneficiaries,[13] examination of dual eligibles' hospitalization patterns warrants further attention.

Reliance on Medicaid to meet supportive service needs is also much greater for duals with multiple conditions. Institutional service use is highest among older duals with multiple mental/cognitive conditions. Community-based supportive services are now used by close to 20 percent of dual eligibles – with somewhat higher levels of use among older duals and those with multiple mental/cognitive conditions. Not surprisingly then, the proportion of expenses covered by Medicaid is substantially higher among individuals who need the supportive services (institutional or community-based, through waiver programs or the personal care option) that are part of the Medicaid benefit package.

Finally, Medicaid is also critical in covering a range of other sometimes less-noticed benefits, such as medical transportation, that are used by many recipients to see physicians. Along these same lines, coverage of Medicare deductibles and co-payments for physician and hospital services is an important supplemental function of Medicaid coverage that enables acute care service use by dual eligibles.

Coordinating Medicare and Medicaid funding is an acknowledged source of problems in access and quality of care for dual eligibles.[14] This analysis highlights the significant co-morbidity and high levels of both mental/cognitive and physical conditions among dual eligibles which also make care coordination particularly challenging. In addition to documenting the significant care needs of dual eligibles, this analysis shows that both programs contribute to meeting their needs for acute and supportive services.

With the passage of health reform and new provisions directed at improving the delivery and coordination of services for this population, the duals will continue to be a focus of state and federal policy in the years ahead. The new law: establishes a number of options that expand eligibility and services for dual eligibles in Medicaid home and community-based programs; reauthorizes Medicare Special Needs Plans (SNPs) through 2013 which are tailored to specific groups, including dual eligibles; creates a medical homes federal grant program to support care coordination and chronic disease management; and requires the Secretary to improve coordination of care for dual eligibles through a new office within the Center for Medicare and Medicaid Services.

ENDNOTES

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