# A Framework for State-Level Analysis of Duals: Interleaving Medicare & Medicaid Data

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### Context

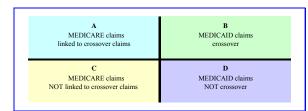
With growing interest among state and federal policy makers in the better coordination of Medicare (primary and acute care) and Medicaid (long-term care) services for those who are dually eligible (duals), important questions remain about how those services and costs are related. For example, to what extent and how do added costs for community supports under Medicaid help offset other resource use under both programs? Can those added costs be justified through the redistribution of existing resources? What are the implications of coordinated/integrated care programs for rate-setting – and for the quality of care?

This research is intended to establish an initial context, or framework, within which to examine these issues. It is the first stage of a two-year effort to look at how analysis of Medicare and Medicaid services – together – can help state Medicaid administrators, in particular, assess the implications for service use, costs, and quality as new programs designed to integrate care for duals are put in place.

## **The Hilltop Crossover Framework**

The term "crossover" refers to Medicaid claims for the portion of Medicare payments that state Medicaid programs cover on behalf of duals. Crossover payments reflect Medicare deductibles and co-payments.

The Hilltop framework is based on a two-by-two format to array summary data from claims by category of service to highlight the relationships between government programs and service use. As illustrated here, Medicare and Medicaid service use and costs are summarized to the left and right, respectively.



- · Section A reflects Medicare activity that can be directly linked to Medicaid crossover claims.
- Section B reflects Medicaid crossover claims and costs that cover Medicare deductibles and copayments. Crossover claims for which no specific Medicare claim can be found are also shown here.
- · Section C shows Medicare activity that is not reflected in Medicaid claims.
- Section D shows services and costs that are covered as direct Medicaid benefits, and not otherwise associated with Medicare payments. These are services that are only covered as a Medicaid benefit (such as long-term custodial care) as well as hospital costs incurred once the Medicare benefit is exhausted.

Medicare claims were linked to Medicaid crossover claims and eligibility files for all duals in Maryland for CY 2002-2006. All program claims were organized into stay- and claim-level analytical files that include reference to associations across programs and allow ready aggregation across service type and time for any defined sub-group (coverage status, demographic, diagnosis, etc.).

## **Population & Results**

#### Duals in MD: Selected Grouping Criteria (2006)

	Full Me	dicaid	Partial N	All 2006			
	Persons	% of col	Persons	% of col	I	Persons	% of c
Total	59,761	100%	22,343	100%		82,104	100
Medicaid Coverage Categories							
1: Family & Children, Foster, Pregnant	135	0.2%	0			135	0.
2: Aged, Blind, Disabled	39,467	66.0%	0			39,467	48.
3: Long Term Care	16,416	27.5%	0	0.0%		16,416	
4: Home & Community Based Services	3,479	5.8%	0	0.0%		3,479	4.
5: QMB	0	0.0%	14,402	64.5%		14,402	17.
6: SLMB/QI	0	0.0%	7,941	35.5%		7,941	9.
7: Spenddown	264	0.4%	0	0.0%		264	0.
Medicare Identity Categories							
A: Primary Claimant	33,757	56.5%	17,910			51,667	62.
B: Spouse	1,507	2.5%	481	2.2%		1,988	2.
C: Child	7,887	13.2%	385			8,272	10.
D: Widow(er) / Divorced	5,811	9.7%	3,429	15.3%		9,240	11.
M: No Deemed HIB	9,710	16.2%	20	0.1%		9,730	11.
O: Other	1,089	1.8%	118	0.5%		1,207	1.
Dual Status Code							
01: QMB only	88	0.1%	14,389			14,477	
02: QMB & Full Medicaid	51,187	85.7%	11	0.0%		51,198	62.
03: SLMB only	40	0.1%	5,632			5,672	6.
06: QI	18	0.0%	2,309	10.3%		2,327	
08: Other Full Dual	8,428	14.1%	2	0.0%		8,430	10.
Age Categories							
Less than 21	162	0.3%	2			164	0.
21 to 34	4,293	7.2%	567	2.5%		4,860	5.
35 to 49	9,440	15.8%	3,383			12,823	15.
50 to 64	8,606	14.4%	4,896			13,502	16.
65 to 74	13,118	22.0%	7,095			20,213	24.
75 to 84	14,526	24.3%	4,892			19,418	
84 & over	9,616	16.1%	1,508	6.7%		11,124	13.
Sex							
Female	38,869	65.0%	14,966	67.0%		53,835	65.
Male	20,892	35.0%	7,377	33.0%		28,269	34.
Race			1		ΙГ		_
Asian	4,300	7.2%	540		П	4,840	
Black	22,561	37.8%	9,297		П	31,858	
Caucasian	28,033	46.9%	11,543		П	39,576	
Hispanic	1,581	2.6%	389		П	1,970	
Other/Undetermined	3,286	5.5%	574	2.6%	ш	3,860	4.
Ever Disabled	I		1		П		
Yes	26,886	45.0%	11,276		П	38,162	
No	32,875	55.0%	11,067	49.5%	Ш	43,942	53.
Deceased During CY	I		1		П		
Yes	5,933	9.9%	971	4.3%	П	6,904	8.
No	53,828	90.1%	21,372	95.7%	Ш	75,200	91.
Medicare Group Health Plan Coverage							
Yes	5,852	9.8%	2,285	10.2%	П	8,137	9.
No	53.909	90.2%	20.058	89.8%		73.967	90.

### Total Medicare & Medicaid Payments, Duals w/Full Medicaid (2006)

	Medicare		Me	edicaid	Total							
	Users	Payments (000s)	Users	Payments (000s)	Users	Users as % of Total (53,909)	Payments (000s)	\$s as % of Total	\$s Per User	\$s PMPM Per Dual		
Total	51,021	\$740,219	50,844	\$1,185,252	51,601	95.7%	\$1,925,470	100%	\$37,315	\$3,113		
Hospital Inpatient	16,214	\$375,394	13,822	\$56,588	16,399	30.4%	\$431,982	22.4%	\$26,342	\$698		
NF & ICF/MR	5,763	\$65,513	12,930	\$580,854	14,238	26.4%	\$646,368	33.6%	\$45,397	\$1,045		
HH & Oth Community	3,526	\$12,431	13,004	\$416,080	14,943	27.7%	\$428,511	22.3%	\$28,676	\$693		
Hospice	1,540	\$13,789	763	\$9,764	1,554	2.9%	\$23,553	1.2%	\$15,156	\$38		
Phys., Outpat., & DME	50,962	\$273,091	49,314	\$121,966		94.9%	\$395,057	20.5%	\$7,720	\$639		

Note: Includes duals who were continuously-enrolled under both Medicare and Medicaid during the calendar year (from January 1 until death and had full Medicaid benefits. Excludes OMBs/SLMBs/Ols with only partial Medicaid benefits and duals with group health plan coverage

## Crossover Framework: Selected Measures of Medicare & Medicaid Payments, Duals w/Full Medicaid (2006)

			1	Medicare						1	Medicaid				
															Recipient
		Users as %				\$s PMPM	\$s as %		Users as %				\$s PMPM	\$s as %	Payments (000s)
	Users	of Total (53,909)	Payments (000s)	\$s as % Mcare	\$s Per User	Per Dual	Mcare + MCaid	Users	of Total (53,909)	Payments (000s)	\$s as % MCaid	\$s Per User	Per Dual	MCare + MCaid	for Institutional LTC
Total	51,021	94.6%	\$740,219	100%	\$14,508	\$1,197	38.4%	50,844	94.3%	\$1,185,252	100%	\$23,312	\$1,917	61.6%	\$106,845
Hospital Inpatient	16,214	30.1%	\$375,394	50.7%	\$23,152	\$607	19.5%	13,822	25.6%	\$56,588	4.8%	\$4,094	\$92	2.9%	\$2,428
NF & ICF/MR	5,763	10.7%	\$65,513	8.9%	\$11,368	\$106	3.4%	12,930	24.0%	\$580,854	49.0%	\$44,923	\$939	30.2%	\$104,417
HH & Oth Community	3,526	6.5%	\$12,431	1.7%	\$3,526	\$20	0.6%	13,004	24.1%	\$416,080	35.1%	\$31,996	\$673	21.6%	
Hospice	1,540	2.9%	\$13,789	1.9%	\$8,954	\$22	0.7%	763	1.4%	\$9,764	0.8%	\$12,796	\$16	0.5%	-
Phys., Outpat., & DME	50,962	94.5%	\$273,091	36.9%	\$5,359	\$442	14.2%	49,314	91.5%	\$121,966	10.3%	\$2,473	\$197	6.3%	
Linked to crossover claims	48,824	90.6%	\$464,312	62.7%	\$9,510	\$751	24.1%	49,072	91.0%	\$87,866	7.4%	\$1,791	\$142	4.6%	\$2,428
Hospital Inpatient	13,613	25.3%	\$214,919	29.0%	\$15,788	\$348	11.2%	13,698	25.4%	\$20,699	1.7%	\$1,511	\$33	1.1%	\$51
Medicare claim found	13,613	25.3%	\$214,919	29.0%	\$15,788	\$348	11.2%	13,593	25.2%	\$20,460	1.7%	\$1,505	\$33	1.1%	\$50
No Medicare claim found	-	-	-	-	-	-	-	221	0.4%	\$239	0.0%	\$1,082	\$0	0.0%	\$1
NF & ICF/MR	2,599	4.8%	\$33,775	4.6%	\$12,995	\$55	1.8%	2,621	4.9%	\$1,283	0.1%	\$489	\$2	0.1%	\$2,377
Medicare claim found	2,599	4.8%	\$33,775	4.6%	\$12,995	\$55	1.8%	2,573	4.8%	\$1,175	0.1%	\$457	\$2	0.1%	\$2,247
No Medicare claim found	-	-	-	-	-	-	-	274	0.5%	\$108	0.0%	\$395	\$0	0.0%	\$130
HH & Oth Community	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hospice	-	-		-	-	-	-	-	-		-	-	-	-	
Phys., Outpat., & DME	48,760	90.4%	\$215,618	29.1%	\$4,422	\$349	11.2%	49,013	90.9%	\$65,885	5.6%	\$1,344	\$107	3.4%	
Medicare claim found	48,760	90.4%	\$215,618	29.1%	\$4,422	\$349	11.2%	48,758	90.4%	\$61,086	5.2%	\$1,253	\$99	3.2%	-
No Medicare claim found	-	-		-	-	-	-	19,192	35.6%	\$4,799	0.4%	\$250	\$8	0.2%	-
L															
NO crossover claims	46,809	86.8%	\$275,907	37.3%	\$5,894	\$446	14.3%	30,731	57.0%	\$1,097,385	92.6%	\$35,709	\$1,774	57.0%	\$104,417
NO crossover claims  Hospital Inpatient	<b>46,809</b> 7,367	86.8% 13.7%	\$275,907 \$160,475	37.3% 21.7%	\$5,894 \$21,783	\$446 \$259	14.3% 8.3%	30,731 240	57.0% 0.4%	\$1,097,385 \$35,889		\$35,709 \$149,537	\$1,774 \$58	57.0% 1.9%	\$104,417 \$884
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Hospital Inpatient	7,367	13.7%	\$160,475	21.7%	\$21,783	\$259	8.3%	240	0.4%	\$35,889	3.0%	\$149,537	\$58	1.9%	
Hospital Inpatient  Medicare claim found	7,367 7,367	13.7% 13.7%	\$160,475 \$160,475	21.7%	\$21,783 \$21,783	\$259 \$259	8.3% 8.3%	240	0.4%	\$35,889	3.0%	\$149,537	\$58	1.9%	\$884
Hospital Inpatient  Medicare claim found  No Medicare claim found	7,367 7,367	13.7% 13.7%	\$160,475 \$160,475	21.7%	\$21,783 \$21,783	\$259 \$259	8.3% 8.3%	240	0.4%	\$35,889 - \$35,889	3.0%	\$149,537 - \$149,537	\$58 - \$58	1.9%	\$884 - \$884
Hospital Inpatient  Medicare claim found  No Medicare claim found  NF & ICF/MR	7,367 7,367 - 4,231	13.7% 13.7% - 7.8%	\$160,475 \$160,475 - \$31,738	21.7% 21.7% - 4.3%	\$21,783 \$21,783 - \$7,501	\$259 \$259 - \$51	8.3% 8.3% - 1.6%	240 - 240 12,345	0.4% - 0.4% 22.9%	\$35,889 - \$35,889 \$579,572	3.0% - 3.0% 48.9%	\$149,537 - \$149,537	\$58 - \$58 \$937	1.9% - 1.9% 30.1%	\$884 - \$884
Hospital Inpatient  Medicare claim found  No Medicare claim found  NF & ICF/MR  Medicare claim found	7,367 7,367 - 4,231 4,231	13.7% 13.7% - 7.8% 7.8%	\$160,475 \$160,475 - \$31,738 \$31,738	21.7% 21.7% - 4.3% 4.3%	\$21,783 \$21,783 - \$7,501 \$7,501	\$259 \$259	8.3% 8.3% - 1.6% 1.6%	240 - 240 12,345	0.4% - 0.4% 22.9%	\$35,889 - \$35,889 \$579,572	3.0% - 3.0% 48.9%	\$149,537 - \$149,537 \$46,948	\$58 - \$58 \$937	1.9% - 1.9% 30.1%	\$884 - \$884 \$103,533
Hospital Inpatient  Medicare claim found  No Medicare claim found  NF & ICF/MR  Medicare claim found  No Medicare claim found	7,367 7,367 - 4,231 4,231	13.7% 13.7% - 7.8% 7.8%	\$160,475 \$160,475 - \$31,738 \$31,738	21.7% 21.7% - 4.3% 4.3%	\$21,783 \$21,783 - \$7,501 \$7,501	\$259 \$259	8.3% 8.3% - 1.6% 1.6%	240 - 240 12,345 - 12,345 - 12,098 247	0.4% - 0.4% 22.9% - 22.9%	\$35,889 - \$35,889 \$579,572 - \$579,572	3.0% - 3.0% 48.9% - 48.9%	\$149,537 - \$149,537 \$46,948 - \$46,948	\$58 - \$58 \$937 - \$937	1.9% - 1.9% 30.1% - 30.1%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient  Medicare claim found  No Medicare claim found  NF & ICE/MR  Medicare claim found  No Medicare claim found  No Medicare claim found  No Medicare relaim found	7,367 7,367 - 4,231 4,231 - - 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3%	\$21,783 \$21,783 \$7,501 \$7,501	\$259 \$259	8.3% 8.3% - 1.6% - - - 0.6%	240 - 240 12,345 - 12,345 - 12,098 247 13,004	0.4% - 0.4% 22.9% - 22.9% 22.4%	\$35,889 \$35,889 \$579,572 - \$579,572 \$534,837 \$44,735 \$416,080	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.8% 35.1%	\$149,537 - \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996	\$58 \$58 \$937 - \$937 \$865	1.9% - 1.9% 30.1% - 30.1% - 27.8% 23.% 21.6%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Medicare claim found No Medicare claim found NF & ICE/MR Medicare claim found No Medicare claim found No Medicare claim found No maring Facility ICE/MR HH & Oth Community Medicare claim found	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8%	\$160,475 \$160,475 - \$31,738 \$31,738 -	21.7% 21.7% - 4.3% - -	\$21,783 \$21,783 \$7,501 \$7,501	\$259 \$259	8.3% 8.3% - 1.6% 1.6%	240 - 240 12,345 - 12,345 - 12,098 247 13,004	0.4% - 0.4% 22.9% - 22.9% - 22.9% 0.5% 24.1% -	\$35,889 \$35,889 \$579,572 - \$579,572 \$334,837 \$44,735 \$416,080	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.8% 35.1% -	\$149,537 - \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996	\$58 - \$58 \$937 - \$937 \$865 \$72 \$673	1.9% - 1.9% 30.1% - 30.1% - 27.8% 2.3% 21.6% -	\$884 - \$884 \$103,533 - \$103,533
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Hospital Inpatient Medicine claim found Medicine claim found NF & ICF/MR Medicine claim found No Medicine claim found No Medicine claim found Norsing Facility* HEADR* HH & OH Community Medicine claim found DO Waivers*	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3% - - - 1.7%	\$21,783 \$21,783 \$7,501 \$7,501	\$259 \$259	8.3% 8.3% - 1.6% - - - 0.6% -	240 - 240 12,345 - 12,345 - 12,098 247 13,004 - 5,605	0.4%	\$35,889 \$35,889 \$579,572 - \$579,572 \$534,837 \$44,735 \$416,080 \$276,477	3.0% - 3.0% 48.9% - 48.9% - 45.1% 35.1% - 35.1% 23.3%	\$149,537 \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996 - \$31,996	\$58 \$937 - \$937 \$865 \$72 \$673 -	1.9% - 1.9% 30.1% - 30.1% 27.8% 21.6% - 21.6% 14.4%	\$884 - \$884 \$103,533 - \$103,533
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Hospital Inpatient Medicine chim found Medicine chim found NF & ICFAMR Medicare chim found NF & ICFAMR Medicare chim found No Medicare chim found No Medicare chim found Norming Facility  MEDICAR  HI & Oth Community Medicare chim found DD Wairers  Med Dog Carle (to wairer)  Med Day Carle (to wairer)  Med Day Carle (to wairer)	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3% - - 1.7%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526	\$259 \$259	8.3% 8.3%	240 240 12,345 - 12,345 12,998 247 13,004 - 13,004 5,605 2,690 3,844	0.4%	\$35,889 \$35,889 \$579,572 \$579,572 \$534,837 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710	3.0% - 3.0% - 48.9% - 48.9% - 45.1% 3.5.1% - 35.1% - 23.3% 5.0% 4.0%	\$149,537 \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996 \$49,327 \$22,005 \$12,411	\$58 \$937 - \$937 \$865 \$72 \$673 - \$673 \$447 \$96	1.9% - 1.9% 30.196 - 30.196 27.8% 21.6% - 21.6% 14.4% 3.1% 2.5%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Medicine claim found No Medicine claim found NF & ICFYMR Medicine claim found Norsing Facility* Medicine claim found Nursing Facility* ILFAMR* HIL & Oth Community Medicine claim found No Medicine claim found No Medicine claim found DO Wairors* Older Adult Wairer* Med Day Care (so waiver)* Personal Care (so waiver)*	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3% - - 1.7%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526	\$259 \$259	8.3% 8.3% - 1.6% - - - 0.6% -	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 5,605 2,690 3,844 2,923	0.4%	\$35,889 \$35,889 \$579,572 \$579,572 \$579,572 \$544,735 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710 \$20,060	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.1% 35.1% - 35.1% 23.3% 5.0% 4.0% 1.7%	\$149,537 \$149,537 \$46,948 \$46,948 \$44,209 \$181,113 \$31,996 \$31,996 \$49,327 \$22,005 \$12,411 \$6,863	\$58 \$937 \$937 \$865 \$72 \$673 \$447 \$96 \$77 \$32	1.9% - 1.9% 30.196 - 30.196 27.8% 2.3% 21.6% - 21.6% 3.1% 2.5% 1.0%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Mediciare claim found No Mediciare claim found No Mediciare claim found No Mediciare claim found Mediciare claim found Musing Facility ICFARE* HH & Oth Community Mediciare claim found No Mediciare claim found DO Wairvers* Mediciare claim found DO Wairvers* Mediciare claim found Link and Wairvers* Mediciare claim found Link and Wairvers* Mediciare found wairvers* Mediciare found wairvers* Mediciare found wairvers* Mediciare found wairvers* Link and Mediciare found wairvers*	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3% - - 1.7%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526	\$259 \$259	8.3% 8.3% - 1.6% 0.6% 0.6%	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 5,605 2,690 3,844 2,923 266	0.4%	\$35,889 \$579,572 \$579,572 \$579,572 \$34,837 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710 \$20,060 \$9,396	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.1% - 35.1% - 35.1% - 1.7% 0.8%	\$149,537 \$149,537 \$46,948 \$46,948 \$44,209 \$181,113 \$31,996 \$49,327 \$22,005 \$12,411 \$6,863 \$35,322	\$58 \$937 \$937 \$865 \$72 \$673 \$447 \$96 \$77 \$32 \$15	1.9% - 1.9% 30.1% - 30.1% 27.8% 2.3% 21.6% - 21.6% 14.4% 3.1% 2.5% 1.0% 0.5%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Medicine claim found Medicine claim found NF & ICF/MR Medicine claim found NF & ICF/MR Medicine claim found No Medicine claim found No Medicine claim found No Medicine claim found No Medicine claim found DD Waivers Older Adult Waiver Med Day Care (no waiver) Personal Care (no waiver) Living at Home Waiver Cane Migua (no waiver)	7,367 7,367 - 4,231 4,231 - - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - - - - - -	\$160,475 \$160,475 - \$31,738 \$31,738 - - - \$12,431	21.7% 21.7% - 4.3% 4.3% - - 1.7%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526	\$259 \$259	8.3% 8.3%	240 - 240 12,345 - 12,345 - 12,345 - 13,004 - 13,004 - 13,004 - 2,690 3,844 2,923 266 1,111	0.4%	\$35,889 \$35,889 \$579,572 \$579,572 \$334,837 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710 \$20,069 \$9,396 \$285	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.8% 35.1% - 35.1% - 35.1% - 0.0%	\$149,537 - \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996 \$49,327 \$2,005 \$12,411 \$6,863 \$35,322 \$256	\$58 \$937 - \$937 \$865 \$72 \$673 \$447 \$96 \$777 \$322 \$15	1.9% - 1.9% 30.1% - 30.1% 27.8% 2.3% 21.6% - 21.6% - 21.6% 14.4% 3.19% 2.5% 1.0% 0.5% 0.0%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Medicine claim found NP & ICEYAIR Medicine claim found NP & ICEYAIR Medicine claim found Nursing Facility ICEYAIR HIR & OH Community Medicine claim found No Medicine claim found No Medicine claim found No Medicine claim found DO Waires' Older Adult Waires' Med Day Care (no waires') Lining at Home Waires' Cane Magnat (no wairer)' Cane Magnat (no wairer)' Other '* Other'	7,367 7,367 - 4,231 4,231 - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - 6.5% 6.5%	\$160,475 \$160,475 \$31,738 \$31,738 \$31,738 \$12,431 \$12,431	21.7% 21.7% 4.3% 4.3% 1.7%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526	\$259 \$259	8.3%	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 - 2,690 3,844 2,923 266 1,111 127	0.4% - 0.4% - 22.9% - 22.9% - 22.4% - 24.1% - 24.1% - 24.1% 5.0% 5.4% 6.2% 0.2%	\$35,889 \$35,889 \$579,572 \$579,572 \$334,837 \$416,080 \$216,080 \$27,477 \$39,193 \$47,710 \$20,060 \$39,396 \$22,885 \$22,885	3.0% - 3.0% 48.9% - 48.9% 45.1% 35.1% - 35.1% - 35.1% 0.0% 0.0% 0.2%	\$149,537 - \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996 - \$31,996 \$49,327 \$22,005 \$12,411 \$6,863 \$35,532 \$256 \$23,305	\$58 \$937 \$937 \$865 \$72 \$673 	1.9% - 1.9% 30.1% - 30.1% 27.8% 21.6% - 21.6% 4.4% 3.1% 2.5% 1.0% 0.5% 0.0%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Mediciace claim found Mediciace claim found NF & ICFAME Medicace claim found NF & ICFAME Medicace claim found No Medicace claim found No Medicace claim found Norsing Facility* ICFAME* HH & Oth Community Mediciace claim found DD Wairers* Other Adult Wairer* Med Day Care (no wairer)* Are Down Wairer (no wairer)* Leing at Home Wairer* Case Mgmt (no wairer)* Chees Adgust (no wairer)* Other Adgust (no wairer)* Other Adgust (no wairer)* Other Adgust (no wairer)* Hospite	7,367 7,367 - 4,231 4,231 - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - 6.5% 6.5%	\$160,475 \$160,475 \$31,738 \$31,738 \$12,431 \$12,431 \$12,431	21.7% 21.7% 4.3% 4.3%	\$21,783 \$21,783 \$7,501 \$7,501 	\$259 \$259 \$31 \$31 \$31 \$20 \$20 \$20	8.3% 8.3% - 1.6% 0.6% 0.6%	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 5,605 2,690 3,844 2,923 266 1,111 127 763	0.4% - 0.4% - 22.9% - 22.9% - 22.4% 0.5% 24.1% - 24.1% 5.0% 7.1% 5.0% 6.2% 0.2% 1.4%	\$35,889 \$35,889 \$579,572 \$579,572 \$534,837 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710 \$20,060 \$9,396 \$2,060 \$9,396 \$9,764	3.0% - 3.0% 48.9% - 48.9% 45.1% 35.1% - 35.1% - 35.1% 0.0% 0.0% 0.2% 0.8%	\$149,537 \$149,537 \$46,948 \$44,209 \$181,113 \$31,996 \$31,996 \$49,327 \$22,005 \$12,411 \$6,863 \$35,322 \$25,66 \$23,305 \$12,796	\$58 \$937 \$937 \$865 \$72 \$673 \$673 \$477 \$96 \$77 \$32 \$15 \$9	1.9% - 1.9% 30.1% - 30.1% 27.8% 2.1.6% - 21.6% - 21.6% 3.19 2.5% 6.0% 0.0% 0.2%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Medicine claim found Medicine claim found NF & ICF/MR Medicine claim found NF & ICF/MR Medicine claim found No Medicine claim found No Medicine claim found No Medicine claim found Davine found Medicine claim found DD Waivers Other Adult Vaiver Med Day Care (no waiver) Personal Care (no waiver) Living at Home Waiver Cate Migus (no waiver) Others Others Others  Cate Migus (no waiver) Others Others  Hospice Phys., Outpat., & DME	7,367 7,367 4,231 4,231 3,526 3,526	13.7% 13.7% 7.8% 7.8% 6.5% 6.5% 6.5% 6.5% 6.5% 86.0%	\$160,475 \$160,475 \$31,738 \$31,738 \$31,738 \$12,431 \$12,431 \$12,431 \$13,789 \$57,473	21.7% 21.7% 4.3% 4.3% 4.3% 1.7% 1.7% 1.7% 7.8%	\$21,783 \$21,783 \$7,501 \$7,501 \$3,526 \$3,526 \$3,526	\$259 \$259  \$51 \$51  \$20 \$20  	8.3% 8.3%	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 - 2,690 3,844 2,923 266 1,111 127	0.4% - 0.4% - 22.9% - 22.9% - 22.4% - 24.1% - 24.1% - 24.1% 5.0% 5.4% 6.2% 0.2%	\$35,889 \$35,889 \$579,572 \$579,572 \$334,837 \$416,080 \$216,080 \$27,477 \$39,193 \$47,710 \$20,060 \$39,396 \$22,885 \$22,885	3.0% - 3.0% 48.9% - 48.9% 45.1% 35.1% - 35.1% - 35.1% 0.0% 0.0% 0.2%	\$149,537 - \$149,537 \$46,948 - \$46,948 \$44,209 \$181,113 \$31,996 - \$31,996 \$49,327 \$22,005 \$12,411 \$6,863 \$35,532 \$256 \$23,305	\$58 \$937 \$937 \$865 \$72 \$673 	1.9% - 1.9% 30.1% - 30.1% 27.8% 21.6% - 21.6% 4.4% 3.1% 2.5% 1.0% 0.5% 0.0%	\$884 - \$884 \$103,533 - \$103,533
Hospital Inpatient Mediciace claim found Mediciace claim found NF & ICFAME Medicace claim found NF & ICFAME Medicace claim found No Medicace claim found No Medicace claim found Norsing Facility* ICFAME* HH & Oth Community Mediciace claim found DD Wairers* Other Adult Wairer* Med Day Care (no wairer)* Are Down Wairer (no wairer)* Leing at Home Wairer* Case Mgmt (no wairer)* Chees Adgust (no wairer)* Other Adgust (no wairer)* Other Adgust (no wairer)* Other Adgust (no wairer)* Hospite	7,367 7,367 - 4,231 4,231 - 3,526 3,526	13.7% 13.7% - 7.8% 7.8% - 6.5% 6.5%	\$160,475 \$160,475 \$31,738 \$31,738 \$12,431 \$12,431 \$12,431	21.7% 21.7% 4.3% 4.3%	\$21,783 \$21,783 \$7,501 \$7,501 	\$259 \$259 \$31 \$31 \$31 \$20 \$20 \$20	8.3% 8.3% - 1.6% 0.6% 0.6%	240 - 240 12,345 - 12,345 12,098 247 13,004 - 13,004 5,605 2,690 3,844 2,923 266 1,111 127 763	0.4% - 0.4% - 22.9% - 22.9% - 22.4% 0.5% 24.1% - 24.1% 5.0% 7.1% 5.0% 6.2% 0.2% 1.4%	\$35,889 \$35,889 \$579,572 \$579,572 \$534,837 \$44,735 \$416,080 \$276,477 \$59,193 \$47,710 \$20,060 \$9,396 \$2,060 \$9,396 \$9,764	3.0% - 3.0% 48.9% - 48.9% - 48.9% 3.8% 35.1% - 35.1% - 35.1% 0.8% 0.0% 0.8% 4.7%	\$149,537 \$149,537 \$46,948 \$44,209 \$181,113 \$31,996 \$31,996 \$49,327 \$22,005 \$12,411 \$6,863 \$35,322 \$25,66 \$23,305 \$12,796	\$58 \$937 \$937 \$865 \$72 \$673 \$673 \$477 \$96 \$77 \$32 \$15 \$9	1.9% - 1.9% 30.1% - 30.1% 27.8% 21.6% - 21.6% - 21.6% - 21.6% 0.5% 0.5% 0.5% 0.29%	\$884 \$103,533 \$103,633 \$101,642 \$1,891

Note: Duals continuously-enrolled from January 1 to year end or death. Excludes QMBs/SLMBs/QIs with partial Medicaid benefits and duals with group health plan coverage. [-] is value not applicable.

<sup>a</sup>Detail component of Medicare claims found/not found line. <sup>b</sup>Includes a small amount of Medicaid home health, other small waivers, and other activity.

- ◆ The impact of HCBS waiver participation on Medicare and other Medicaid institutional services
- ♦ Avoidable hospitalizations ♦ Patterns of post acute hospital care
- **Next Steps:** ◆ Medicare home health and Medicaid community supports ◆ Hospice and care in the last months of life
  - ◆ Medicare and Medicaid services in the presence of chronic conditions
  - ◆ Medicaid service use among Medicare Advantage group health plan enrollees

Integrating analysis of Medicare and Medicaid supports and services is an important aspect of emerging consideration of the full continuum of care that is needed to help shape health system reform efforts designed to focus beyond acute care alone - at both the state and federal levels.