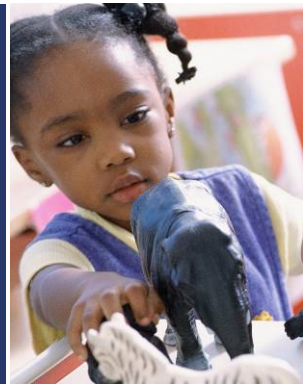
The LEWIN GROUP®



HEALTH CARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING - **WITH REAL-WORLD PERSPECTIVE**.

Missouri Medicaid Report on High-Cost Beneficiaries

March 31, 2010

Final Version - 4/30/2010

Content Overview

Sections of Analysis

- **Intro and Executive Summary**
- **Overall Health Cost Distributions**
- **Detailed Assessment, High-Cost Non-Duals**
- **Other Beneficiary Subgroup Analyses**
- **Top 1,000 Costliest Beneficiaries**
- **High-Volume Provider Reports**

Executive Summary

- Our approach to examining high-cost individuals in the MO HealthNet program was to evaluate them from two different perspectives:
  - Those individuals whose claims history demonstrated unusually high use of certain services, specifically pharmacy, inpatient hospital and emergency room (ER)
  - Those individuals whose overall claims history demonstrated unusually high overall spending levels (e.g., greater than $25,000/%50,000 and $100,000)
- Such analyses are useful in identifying participants who should be evaluated for care management interventions
  - Such claims-level reviews are not sufficient for final determination of participation in a care management program because many of these individuals may be appropriately using necessary health care services
- Our analysis focused on claims from CY 2008, with additional claims information from prior years to identify spending and use trends

Executive Summary (continued)

- 58,000 MO HealthNet beneficiaries reached the $25,000 cost level during CY2008; these persons represented 5.4% of all beneficiaries and incurred a majority (52.5%) of total program costs.
  - 60% of these persons also had costs of $25,000+ during CY2007
- Medicare/Medicaid dual eligibles represented just over half of this $25,000+ subgroup
  - Nursing home services were the key driver in high-cost dual eligibles' spending, followed by MRDD services
- This report focuses most heavily on those beneficiaries with costs above $25,000 who are not dual eligibles
  - Many of these persons' expenditure levels and health status are highly amenable to being favorably impacted by coordinated care interventions
  - 85% of this subgroup had evidence of at least one mental health condition; substantial interplay of physical and behavioral health challenges occurs

Executive Summary (continued)

- Three subgroups of non-duals have been identified through analysis as good candidates for intervention based on utilization
  - Persons with multiple inpatient admissions (e.g., 5,061 persons had at least 3 admissions during CY2008)
  - Persons with large number of emergency room visits (e.g., 3,453 persons had at least 10 ER visits during CY2008)
  - Persons with seemingly highly aberrant prescription drug usage (n = 3,399)
- Recommended intervention model, located in Final Report, is designed to create a Missouri-specific, evidence-based outreach approach
  - Interact with most high-cost/utilization beneficiaries first, moving "down the curve" as resources permit
  - Adopt "step therapy" outreach approach that first attempts low-cost interventions and flexibly adjusts intervention model based on its effectiveness with each targeted beneficiary
  - Computerize outreach activities and provide strong ongoing analytics regarding beneficiaries' outreach, usage and cost patterns to build evidence-based system that optimizes care coordination efforts

Technical Comments on Report's Data Tables

- Costs were tabulated for each year and each beneficiary in two ways:
  - Unadjusted figures reflect summation of "amounts paid" on claims file
  - To more accurately reflect the total cost incurred in the MO HealthNet program, "amounts paid" were adjusted for both inpatient hospital care and pharmacy claims
    - Inpatient hospital claim costs were multiplied by a factor of 2.72 to account for supplemental payments made outside of the claims file
    - Pharmacy claim amounts were reduced by 32% to 36%, depending on the year, to account for manufacturer rebates
  - While these adjustment factors were uniformly applied to all beneficiaries, the actual claims adjustments appropriate for a given individual depend on the hospitals used and mix of medications taken
- Cost distribution tables were created inclusive of all service categories, then reproduced excluding nursing home expenditures to limit the costs to those considered "impactable" outside of long-term care reform (which is the subject of a separate report)

Technical Comments on Report's Data Tables (continued)

- All costs shown in this report are the Medicaid program's expenditures
  - For persons who receive Medicaid coverage through capitated health plans, the costs captured in this report are the capitation payments made by the Medicaid program plus those fee-for-service payments made for carve-out services and during months of non-managed care enrollment
  - Many managed care enrollees incur high costs within their health plans: such costs were not tabulated in this report
- Separate tables are presented for the overall MO HealthNet population, for Medicare/Medicaid dual eligibles, and for non-dual eligibles

Sections of Analysis

- Intro and Executive Summary
- **Overall Health Cost Distributions**
- Detailed Assessment, High-Cost Non-Duals
- Other Beneficiary Subgroup Analyses
- Top 1,000 Costliest Beneficiaries
- High-Volume Provider Reports

Overall Beneficiary Cost Distribution

- More than 50,000 persons had costs above $25,000 during CY2008
  - These persons represented about 5% of beneficiaries but accounted for roughly 50% of Medicaid expenditures
  - The claims adjustment tabulations increased the number of beneficiaries reaching $25,000 by 5,000 persons or 9%, and increased the expenditures incurred by this subgroup by more than $700 million or 28%
- Almost 90% of beneficiaries did not reach $10,000 in costs
- The 6,182 persons reaching the $100,000 cost level comprise just 0.6% of all beneficiaries but incurred 17% of adjusted Medicaid expenditures

	All Medicaid Beneficiaries				Expenditures			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	960,157	952,380	89.0%	88.3%	$1,987,649,178	$1,951,224,865	35.4%	30.8%
$10,000 to $24,999	65,202	67,982	6.0%	6.3%	$1,021,924,696	$1,058,538,697	18.2%	16.7%
$25,000 to $49,999	38,483	39,065	3.6%	3.6%	$1,348,324,260	$1,373,114,650	24.0%	21.7%
$50,000 to $99,999	10,905	12,619	1.0%	1.2%	$744,500,283	$872,215,255	13.3%	13.8%
> $100,000	3,481	6,182	0.3%	0.6%	$510,042,443	$1,074,690,375	9.1%	17.0%
Total	**1,078,228**	**1,078,228**	**100.0%**	**100.0%**	**$5,612,440,860**	**$6,329,783,842**	**100.0%**	**100.0%**
Subtotal, > $25,000	52,869	57,866	4.9%	5.4%	$2,602,866,986	$3,320,020,280	46.4%	52.5%

Overall Cost Distribution, Excluding Nursing Home Expenditures

- Once nursing home costs are removed, roughly 35,000 persons had costs above $25,000 during CY2008
  - This subgroup represented about 3% of beneficiaries but accounted for roughly 40% of non-nursing home Medicaid expenditures
  - The overall costs of persons with $25,000 plus in total adjusted claims costs was $3.3 billion; once nursing home costs are disregarded the total adjusted costs in this subgroup were $2.4 billion (28% lower)
- The nursing home exclusion had a more modest impact on claims cost volume among persons reaching the $100,000 level
  - Adjusted costs in this cohort were $925 million excluding nursing home spending, 14% below the $1.075 billion in costs incurred including nursing home spending.

	All Medicaid Beneficiaries				Expenditures (Excluding Nursing Home Costs)			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	982,967	975,319	91.2%	90.5%	$2,023,672,527	$1,986,252,640	43.2%	36.8%
$10,000 to $24,999	63,683	66,155	5.9%	6.1%	$983,222,126	$1,014,314,200	21.0%	18.8%
$25,000 to $49,999	20,136	20,520	1.9%	1.9%	$682,501,184	$700,885,505	14.6%	13.0%
$50,000 to $99,999	8,885	11,067	0.8%	1.0%	$615,874,973	$774,969,103	13.1%	14.3%
> $100,000	2,554	5,164	0.2%	0.5%	$379,229,097	$925,421,442	8.1%	17.1%
Total	**1,078,225**	**1,078,225**	**100.0%**	**100.0%**	**$4,684,499,907**	**$5,401,842,890**	**100.0%**	**100.0%**
Subtotal, > $25,000	31,575	36,751	2.9%	3.4%	$1,677,605,254	$2,401,276,050	35.8%	44.5%

Prior Year Costs are a Good Predictor of the Ensuing Year's Costs

- As indicated in yellow cells below; beneficiaries' CY2008 costs tended to be in the same cost cohort (or an adjacent one) as during CY2007

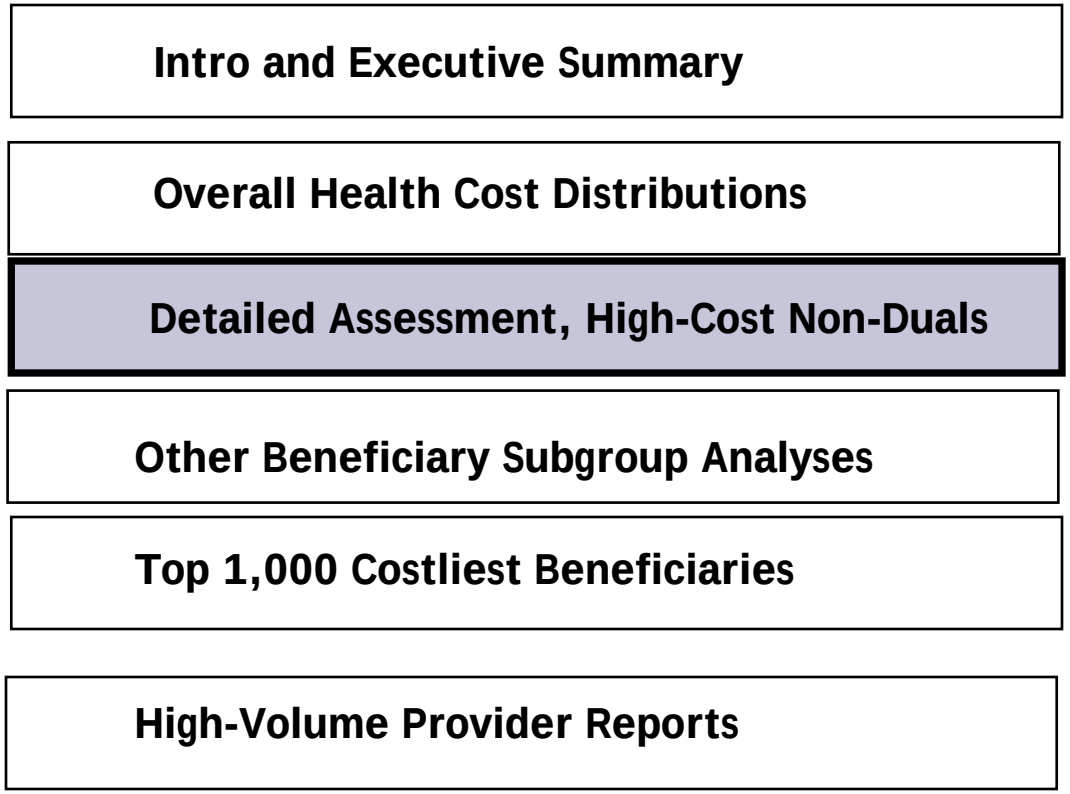
Distribution of High-Cost Persons by Both 2007 and 2008 Adjusted Claims Cost Cohorts							
	Costs During CY2007 (Adjusted)						
Costs During CY2008 (Adjusted)	$0 or Not Eligible During 2007	$1 to $10,000	$10,000 to $24,999	$25,000 to $49,999	$50,000 to $99,999	> $100,000	Total
Under $10,000	168,359	750,236	24,432	6,826	1,709	818	952,380
$10,000 to $24,999	11,941	25,987	22,916	5,531	1,117	490	67,982
$25,000 to $49,999	3,397	6,122	7,366	19,901	1,734	545	39,065
$50,000 to $99,999	1,560	1,631	1,191	2,262	5,138	837	12,619
> $100,000	1,093	701	368	496	1,098	2,426	6,182
Total	186,350	784,677	56,273	35,016	10,796	5,116	1,078,228
Subtotal, $25,000 +	6,050	8,454	8,925	22,659	7,970	3,808	57,866

Percentage Distribution of 2008 High-Cost Persons by their 2007 Cost Cohort							
	Costs During CY2007 (Adjusted)						
Costs During CY2008 (Adjusted)	$0 or Not Eligible During 2007	$1 to $10,000	$10,000 to $24,999	$25,000 to $49,999	$50,000 to $99,999	> $100,000	Total
Under $10,000	18%	79%	3%	1%	0%	0%	100%
$10,000 to $24,999	18%	38%	34%	8%	2%	1%	100%
$25,000 to $49,999	9%	16%	19%	51%	4%	1%	100%
$50,000 to $99,999	12%	13%	9%	18%	41%	7%	100%
> $100,000	18%	11%	6%	8%	18%	39%	100%
Total	17%	73%	5%	3%	1%	0%	100%
Subtotal, $25,000 +	10%	15%	15%	39%	14%	7%	100%

Significant Care Coordination Opportunities Exist for High-Cost Subgroups

- Several dynamics work in MO HealthNet's favor in making ever-improving impacts in its high-need, high-cost beneficiaries' clinical status and cost trajectory
- Most high-cost recipients have relatively stable Medicaid coverage
- Most high-cost recipients are not difficult to identify – a large portion of next year's highest-cost persons are this year's high-cost persons (and were last year's high-cost persons)
- A large proportion of Missouri's Medicaid population is concentrated in large urban areas
  - St. Louis and Kansas City are both among the nation's 30 most highly populated MSAs
  - Population density creates local-level care coordination opportunities that evolve beyond purely telephonic interactions

Sections of Analysis



Intervention in the High-Cost Non-Dual Population is More Likely to Yield MO HealthNet Savings than in the Dually-Eligible Population

- Opportunities for MO HealthNet cost savings for dual eligibles are largely related to long-term care services because acute care costs are covered under Medicare (LTC cost reduction options are explored in other reports)
  - We continue to encourage Missouri to explore demonstration programs or other care and coverage integration initiatives with CMS that would permit the State and CMS to mutually benefit from stronger care coordination programs targeted at acute care costs for Missouri's dual eligibles
- While comprising only half of all beneficiaries who reached $25,000 in costs, the non-dual eligibles (or "Medicaid only" beneficiaries) create the greatest care coordination and cost reduction opportunities.
- Improved care coordination and net cost savings can be achieved for the non-duals, however, without engaging in any innovative new partnerships or financing arrangements with CMS

10,000 Beneficiaries Have Been Identified as Clearly Warranting Outreach and Intervention Efforts to Assess and/or Modify Service Utilization

- Persons with unusually high pharmacy usage (n= 3,399, criteria shown on next slide)
- Persons with 3 or more inpatient medical/surgical/psychiatric admissions during 2008 (n = 5,061)
- Persons with 10+ ER visits during 2008 (n – 3,453)
- 8,363 persons qualified for one (and only one) of the above three groups; another 1,661 persons met the criteria for more than one of these groups
- Ensuing three slides convey additional detail on the number of persons using pharmacy, inpatient, and ER services in a manner that warrants assessment and, possibly, intervention

Unusually High Pharmacy Usage Indicates a Need for Assessment and Possible Intervention

- During 2008, 3,399 persons reached all of the following six usage thresholds:
  1. $5,000 or more in Rx claims (pre-rebate)
  2. 80 or more prescriptions
  3. 25 or more different NDCs
  4. 15 or more different Standard Therapeutic Classes
  5. 8 or more prescribers
  6. 4 or more different pharmacies used
- Total 2008 pharmacy claims costs for these beneficiaries (pre-rebate) were $59 million, an average of more than $17,000 per person
- Total unadjusted Medicaid costs for these beneficiaries during 2008 was $163 million, or $48,000 per person
  - These individuals accounted for 8% of total pharmacy spending.

Inpatient Admissions by Individual, 2006-2008

Total Med/Surg + Behavioral Admits, 2006 - 2008	Number of Persons	Number of Admits	Med/Surg $	Behavioral $	Total $, Med/Surg + Behavioral	# Persons With This Number of Admits or More	Number of Admits Above This Level	Percentage of Admits Above This Level	Estimated $ Above This Level	Probability Persons Reaching This Level Will Have At Least One More Admit	Probability Persons Reaching This Level Will Have At Least Three More Admits
1	57,283	57,283	$187,439,446	$69,604,545	$257,043,991	99,504	122,864	55.3%	$699,447,341	42%	14%
2	19,053	38,106	$159,688,739	$58,690,247	$218,378,985	42,221	80,643	36.3%	$459,089,171	55%	23%
3	8,758	26,274	$114,863,192	$45,479,532	$160,342,724	23,168	57,475	25.8%	$327,197,030	62%	29%
4	4,752	19,008	$85,526,280	$32,608,732	$118,135,012	14,410	43,065	19.4%	$245,162,942	67%	35%
5	2,826	14,130	$63,964,220	$27,085,649	$91,049,869	9,658	33,407	15.0%	$190,181,317	71%	39%
6	1,807	10,842	$49,349,487	$21,906,896	$71,256,383	6,832	26,575	12.0%	$151,287,709	74%	43%
7	1,213	8,491	$39,291,791	$16,269,514	$55,561,305	5,025	21,550	9.7%	$122,681,096	76%	46%
8	860	6,880	$31,953,086	$12,660,802	$44,613,888	3,812	17,738	8.0%	$100,979,920	77%	48%
9	640	5,760	$28,602,382	$9,496,318	$38,098,700	2,952	14,786	6.6%	$84,174,603	78%	50%
10	483	4,830	$21,527,603	$9,189,137	$30,716,739	2,312	12,474	5.6%	$71,012,714	79%	52%
11	350	3,850	$17,924,242	$7,068,772	$24,993,014	1,829	10,645	4.8%	$60,600,477	81%	54%
12	286	3,432	$16,187,269	$7,044,257	$23,231,526	1,479	9,166	4.1%	$52,180,739	81%	56%
13	203	2,639	$11,637,961	$4,873,478	$16,511,440	1,193	7,973	3.6%	$45,389,159	83%	59%
14	160	2,240	$9,936,086	$4,164,795	$14,100,881	990	6,983	3.1%	$39,753,229	84%	61%
15	125	1,875	$7,745,019	$3,282,887	$11,027,906	830	6,153	2.8%	$35,028,157	85%	63%
16	97	1,552	$8,390,910	$2,193,568	$10,584,478	705	5,448	2.4%	$31,014,692	86%	64%
17	82	1,394	$5,217,586	$2,159,722	$7,377,308	608	4,840	2.2%	$27,553,434	87%	64%
18	73	1,314	$4,301,828	$2,278,911	$6,580,739	526	4,314	1.9%	$24,558,991	86%	63%
19	63	1,197	$4,819,503	$1,881,820	$6,701,323	453	3,861	1.7%	$21,980,126	86%	65%
20	57	1,140	$4,508,951	$1,757,584	$6,266,535	390	3,471	1.6%	$19,759,911	85%	66%
21+	333	10,131	$38,552,298	$14,784,470	$53,336,767	333	3,138	1.4%	17,864,189	89%	67%
Total	99,504	222,368	$911,427,879	$354,481,634	$1,265,909,513						

- 9, 658 Missouri Medicaid beneficiaries had 5 or more med/surg/psych admissions during 2006-2008
- This subgroup went on to experience 33,407 med/surg admits *after* their fifth admit. These additional admits represented 15% of <u>all</u> inpatient admissions paid for by the State.
- Costs presented above are not adjusted to account for supplemental payments

15,000 Persons Had At Least Three ER Visits During CY2008; Over 800 Had 15 or More Visits

CY2008 ER Visits, MO HealthNet Fee-For-Service Program

Dual Eligibles Excluded

Number of ER Visits During CY2008 (only selected rows shown after 10th visit)	Number of ER Users Reaching Exactly This Level	Number of ER Users Reaching At Least This Level	Percent of ER Users Reaching At Least This Level	Total ER Visits For Persons Reaching Exactly This Level	Total ER Visits After This Visit Level Is Reached	Percentage of Total ER Visits Occurring After This Visit Level Is Reached
1	12,724	35,404	100.0%	12,724	86,921	71.1%
2	7,679	22,680	64.1%	15,358	64,241	52.5%
3	4,709	15,001	42.4%	14,127	49,240	40.3%
4	3,000	10,292	29.1%	12,000	38,948	31.8%
5	1,904	7,292	20.6%	9,520	31,656	25.9%
6	1,306	5,388	15.2%	7,836	26,268	21.5%
7	928	4,082	11.5%	6,496	22,186	18.1%
8	648	3,154	8.9%	5,184	19,032	15.6%
9	479	2,506	7.1%	4,311	16,526	13.5%
10	377	2,027	5.7%	3,770	14,499	11.9%
15	106	849	2.4%	1,590	8,460	6.9%
20	49	438	1.2%	980	5,585	4.6%
25	25	266	0.8%	625	3,984	3.3%
30	14	160	0.5%	420	2,997	2.5%
40	4	81	0.2%	160	1,914	1.6%
60	3	27	0.1%	180	990	0.8%
Total	**35,404**			**122,325**		

Non-Dual Eligibles' Cost Distribution

- Nearly 30,000 non-duals had costs above $25,000 during CY2008
  - These persons represented about 3% of beneficiaries but accounted for roughly 40% of Medicaid expenditures
  - The claims adjustment tabulations increased the number of non-duals reaching $25,000 by 5,000 persons or 21%, and increased the expenditures incurred by this subgroup by nearly $700 million or 51%
- Over 90% of non-dual eligibles did not reach $10,000 in costs
- Almost 5,000 individuals reached the $100,000 expenditure level, comprising only 0.5% of beneficiaries but 20% of adjusted expenditures

	Non-Dual Eligibles				Non-Duals' Expenditures			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	841,383	833,269	93.1%	92.2%	$1,720,199,462	$1,686,665,115	47.1%	38.8%
$10,000 to $24,999	38,727	41,912	4.3%	4.6%	$590,810,204	$634,207,452	16.2%	14.6%
$25,000 to $49,999	14,288	15,044	1.6%	1.7%	$497,608,410	$528,105,168	13.6%	12.2%
$50,000 to $99,999	7,229	8,880	0.8%	1.0%	$490,655,198	$612,644,346	13.4%	14.1%
> $100,000	2,306	4,828	0.3%	0.5%	$352,747,678	$880,245,360	9.7%	20.3%
Total	**903,933**	**903,933**	**100.0%**	**100.0%**	**$3,652,020,952**	**$4,341,867,441**	**100.0%**	**100.0%**
Subtotal, > $25,000	23,823	28,752	2.6%	3.2%	$1,341,011,286	$2,020,994,874	36.7%	46.5%

Distribution of CY2008 Expenditures for the Highly-Impactable Non-Dual Population, by Medical Service Category

To identify those individuals who are the most likely to generate MO HealthNet savings due to a care management intervention, we excluded the following populations:

1.Dual eligibles
2.Persons using MRDD services;
3.Persons with any managed care enrollment during 2008; and
4.Persons with $10,000 or more of nursing facility expenses (indicating a long-term NF stay)

Of the 380,128 remaining individuals, 20,623 (5.4%) reached $25,000 in claims, accounting for 57% of the overall group's costs. Inpatient hospital expenditures represented 62% of all costs for this subgroup.

	Individual Claims Cost Cohort During CY2008						% of Costs		
	< $25,000	$25,000 to $49,999	$50,000 to $99,999	> $100,000	Total	Subtotal, $25,000+	<$25,000	$25,000+	Total
# Persons	359,505	12,002	5,538	3,083	380,128	20,623			
Distribution of Expenditures									
Inpatient Hospital (adjusted)	$282,872,102	$185,067,528	$230,320,951	$444,786,239	$1,143,046,820	$860,174,718	27.2%	62.3%	47.2%
Outpatient Hospital	$248,703,275	$64,957,281	$47,663,783	$30,389,976	$391,714,314	$143,011,040	23.9%	10.4%	16.2%
Personal Care	$32,792,729	$31,696,460	$12,830,165	$5,278,890	$82,598,245	$49,805,515	3.2%	3.6%	3.4%
Day Care/Rehab	$34,415,905	$22,496,988	$12,378,039	$2,907,041	$72,197,973	$37,782,068	3.3%	2.7%	3.0%
Physician/Clinic	$126,248,602	$27,168,350	$21,617,947	$24,684,482	$199,719,381	$73,470,779	12.2%	5.3%	8.3%
Pharmacy (adjusted)	$210,169,840	$59,924,674	$35,161,911	$32,242,144	$337,498,569	$127,328,729	20.2%	9.2%	13.9%
Nursing Home	$1,788,489	$803,197	$1,179,820	$1,185,160	$4,956,666	$3,168,177	0.2%	0.2%	0.2%
Other	$102,002,985	$24,120,131	$20,952,456	$41,068,505	$188,144,078	$86,141,093	9.8%	6.2%	7.8%
Total	**$1,038,993,926**	**$416,234,608**	**$382,105,073**	**$582,542,438**	**$2,419,876,046**	**$1,380,882,119**	**100.0%**	**100.0%**	**100.0%**
Percent of Persons	94.6%	3.2%	1.5%	0.8%	100.0%	5.4%			
Percent of Costs	42.9%	17.2%	15.8%	24.1%	100.0%	57.1%			

Even Without Adjusting Inpatient Claims Costs, 60% of High-Cost Medicaid-Only Beneficiaries Used Inpatient Hospital Services; 15% Used Nursing Home Services

MEDICAID ONLY ELIGIBLES	Percent of Persons by Number of Inpatient Hospital Admits			% of Persons Using Nursing Home Services
2008 Cost Cohort (Unadjusted)	**None**	**1 or 2**	**3 or More**	
Under $10,000	95.0%	5.0%	0.0%	0.0%
$10,000 to $24,999	59.0%	37.5%	3.5%	1.1%
$25,000 to $49,999	42.7%	40.8%	16.5%	7.1%
$50,000 to $99,999	36.7%	32.9%	30.4%	28.2%
> $100,000	35.1%	25.5%	39.5%	22.2%
Total	**92.0%**	**7.2%**	**0.8%**	**0.5%**
Subtotal, $25,000+	40.2%	36.9%	22.9%	15.0%

- 23% of Medicaid-only persons reaching $25,000 during CY2008 (5,467 individuals) had at least 3 inpatient admissions during 2008.
- One-third of those reaching $50,000 in costs during CY2008 had at least 3 inpatient admissions during the year; more than one-fourth of the $50,000+ subgroup used nursing home services.

Half of CY2008's High-Cost Medicaid-Only Beneficiaries Also Had High Costs During CY2007

2008 Cost Cohort (unadjusted)	Total Persons	Percent of Persons Covered for 6+ Months of Prior Year (2007)	Percent of Persons With $25,000 + Costs During Prior Year (2007)
Under $10,000	841,383	70.4%	0.3%
$10,000 to $24,999	38,727	72.6%	8.3%
$25,000 to $49,999	14,288	75.8%	39.4%
$50,000 to $99,999	7,229	77.4%	66.9%
> $100,000	2,306	77.4%	74.0%
Total	**903,933**	70.7%	2.0%
Subtotal, $25,000+	23,823	76.5%	51.1%

- 76.5% of Medicaid-only persons reaching $25,000 during CY2008 had at least 6 months of coverage during 2007; 51% also reached $25,000 in costs during CY2007.
- More than two-thirds of those reaching $50,000 in costs during CY2008 reached at least $25,000 in costs during CY2007

High-Cost Non-Duals Are Widely Dispersed by Age and Evenly Distributed by Gender

Age/Gender Distribution of Medicaid-Only Persons Reaching $25,000 in Unadjusted CY2008 Claims Costs

	# Persons			Percentage of Persons		
Age Cohort	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
0 - 5	625	519	1,144	6%	4%	5%
6 - 18	2,413	1,428	3,841	21%	11%	16%
19 - 45	3,808	4,107	7,915	34%	33%	33%
46 - 64	4,162	5,887	10,049	37%	47%	42%
65+	308	566	874	3%	5%	4%
All Persons > $25,000	11,316	12,507	23,823	100%	100%	100%
Percentage of Persons	48%	52%	100%			

Vast Majority of High-Cost Non-Duals Had Evidence of at Least One Mental Health Diagnosis

Mental Health and Substance Abuse Prevalence Among Medicaid-Only Beneficiaries

2008 Cost Cohort (unadjusted)	Percent of Persons With 1+ Mental Health Diagnosis	Percent of Persons With 1+ Substance Abuse Diagnosis	Number of Persons With 1+ Mental Health Diagnosis	Number of Persons With 1+ Substance Abuse Diagnosis
Under $10,000	13.6%	0.8%	114,833	7,070
$10,000 to $24,999	71.8%	9.2%	27,820	3,566
$25,000 to $49,999	83.1%	11.1%	11,868	1,581
$50,000 to $99,999	87.9%	9.4%	6,352	676
> $100,000	84.1%	5.4%	1,940	125
Total	**18.0%**	**1.4%**	**162,813**	**13,018**
Subtotal, $25,000+	84.6%	10.0%	20,160	2,382

- Of the 23,823 non-duals reaching the $25,000 claims cost level (unadjusted) during CY2008, 20,160 (85%) had at least one claim with a mental health diagnosis.
- Substance abuse was evident far less often.
- Typically, more beneficiaries exhibit mental health and substance abuse conditions than are visible through claims diagnosis codes.

Among Non-Duals With $25,000+ in Adjusted Costs, 80% Had Evidence of at Least One Mental Health Diagnosis

	Non-Duals With $25,000+ in Adjusted Claims Costs, CY2008
# Persons	28,759
# With 1+ Claim Indicating Mental Health Condition	22,856
% With 1+ Claim Indicating Mental Health Condition	79.5%

Adjusting hospital costs upward and pharmacy costs downward Increases the number of beneficiaries with $25,000+ in cost and the number with one or more mental health diagnoses, but reduces the percentage of high-cost persons with a mental health diagnosis.

Distribution of Services Rendered to High-Cost Non-Duals With a Mental Health Diagnosis

Behavioral Health Services Rendered	# of Non-Duals With $25,000+ in CY2008 Adjusted Costs	Percent Distribution
1+ visit, 1+ prescription, 1+ admission	5,463	19.0%
1+ visit, 1+ prescription, 0 admission	7,826	27.2%
1+ visit, 0 prescriptions, 0 admission	1,240	4.3%
1+ visit, 0 prescriptions, 1+ admission	639	2.2%
0 visits, 1+ prescription, 1+ admission	29	0.1%
0 visits, 1+ prescription, 0 admission	6,852	23.8%
0 visits, 0 prescriptions, 0 admission, no other mental health diagnosis	5,903	20.5%
0 visits, 0 prescriptions, 0 admission, 1+ other mental health diagnosis	775	2.7%
0 visits, 0 prescriptions, 1+ admission	32	0.1%
Total, All Non-Duals With $25,000+ in CY2008 Adjusted Costs	28,759	100.0%
Subtotal With Evidence of Mental Health Condition(s)	22,856	79.5%

Most High-Cost Persons with a Mental Health Diagnosis Received at Least One Mental Health Office Visit

- Among the 22,856 non-duals with evidence of a mental health condition and $25,000+ in adjusted 2008 costs:
  - 66% had an office visit apparently related to a mental health issue (due to the type of practitioner and/or the primary diagnosis code assigned)
  - 30% had no visit but received at least one prescription for a behavioral health medication
  - 3% had no behavioral health office visit, medication, or hospitalization, but did have a primary diagnosis of mental health on at least one other type of claim (e.g., an emergency room visit)
  - Only 32 persons had a behavioral health inpatient admission with no evidence of a behavioral health office visit or a behavioral health medication

Mental Health Conditions Were Evident In Vast Majority of Persons With Multiple Medical/Surgical Admits

- Among the 5,095 non-dual eligibles with 5 or more med/surg admits during 2006-2008:
  - 943 persons (18.5%) had no evidence of a mental health condition (looking at medications, procedure codes, and primary diagnosis for outpatient visits and inpatient admissions).
  - Thus, more than 80% of the high-volume med/surg inpatient users had evidence of at least one behavioral health condition.
  - 714 persons (14%) also had at least one behavioral health admission
  - 98.6% had at least one ER visit
- Effective care coordination for the high-volume medical/surgical users requires capabilities and sensitivities with regard to addressing behavioral health conditions.

Among High-Cost ($25,000+) Non-Medicare Beneficiaries, ER Usage Is Positively Correlated with Inpatient Hospital Usage

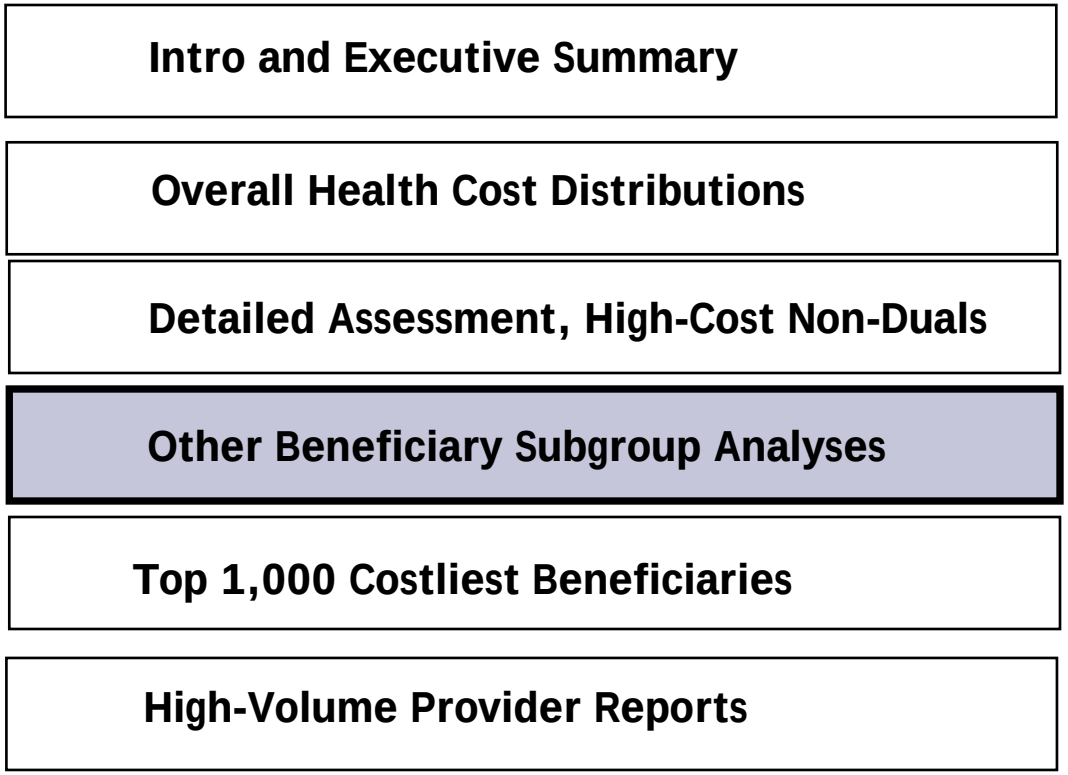
- Whereas 76% of high-cost non-duals with 5+ ER visits had at least one inpatient admission, only 17% of those with no ER visits had an inpatient admission.

Few High-Cost Non-Duals Had Substantial Nursing Home Costs

- Excluding nursing home services from the tabulations reduces the number of non-duals reaching the $25,000 cost threshold by about 1,700 persons (or 6%)
- Approximately 13% of high-cost non-duals utilized any nursing home services during CY2008; 2,000 of these 3,700 nursing home users reached the $25,000 overall cost threshold even after nursing home expenditures were excluded.
- Non-duals who used nursing homes but did not reach the $25,000 cost threshold (n = 665) in CY2008 averaged $10,446 in claims costs

	Non-Dual Eligibles				Non-Duals' Expenditures (Excluding Nursing Home)			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	842,368	834,416	93.2%	92.3%	$1,724,427,816	$1,691,291,354	48.9%	40.1%
$10,000 to $24,999	39,542	42,464	4.4%	4.7%	$604,209,072	$642,910,858	17.1%	15.3%
$25,000 to $49,999	14,238	14,748	1.6%	1.6%	$491,921,457	$513,510,381	14.0%	12.2%
$50,000 to $99,999	5,801	7,877	0.6%	0.9%	$397,642,690	$548,833,814	11.3%	13.0%
> $100,000	1,984	4,428	0.2%	0.5%	$307,439,673	$818,940,791	8.7%	19.4%
Total	**903,933**	**903,933**	**100.0%**	**100.0%**	**$3,525,640,708**	**$4,215,487,197**	**100.0%**	**100.0%**
Subtotal, > $25,000	22,023	27,053	2.4%	3.0%	$1,197,003,820	$1,881,284,986	34.0%	44.6%

Sections of Analysis



DUAL ELIGIBLES

Dual Eligibles' Overall Cost Distribution

- Nearly 30,000 dual eligibles had costs above $25,000 during CY2008; dual eligibles accounted for just above 50% of all beneficiaries reaching the $25,000 threshold
  - 17% of dual eligible beneficiaries reached the $25,000 threshold; these persons accounted for roughly 65% of duals' overall Medicaid expenditures
  - The claims adjustment tabulations had minimal effect on dual eligibles, since these adjustments were for inpatient hospital and pharmacy services –both of which are categories where Medicare is the primary payer
- Most dual eligibles have modest Medicaid costs (due to Medicare's primary payer role for acute care services) -- almost 70% of dual eligibles did not reach $10,000 in costs
- Those duals reaching the $100,000 level comprised just under 1% of all dual eligible beneficiaries but 10% of duals' adjusted expenditures

	Dual Eligibles				Dual Eligibles' Expenditures			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	118,774	119,111	68.1%	68.3%	$267,449,716	$264,559,750	13.6%	13.3%
$10,000 to $24,999	26,475	26,070	15.2%	15.0%	$431,114,492	$424,331,244	22.0%	21.3%
$25,000 to $49,999	24,195	24,021	13.9%	13.8%	$850,715,851	$845,009,482	43.4%	42.5%
$50,000 to $99,999	3,676	3,739	2.1%	2.1%	$253,845,084	$259,570,909	12.9%	13.1%
> $100,000	1,175	1,354	0.7%	0.8%	$157,294,765	$194,445,016	8.0%	9.8%
Total	**174,295**	**174,295**	**100.0%**	**100.0%**	**$1,960,419,908**	**$1,987,916,401**	**100.0%**	**100.0%**
Subtotal, > $25,000	29,046	29,114	16.7%	16.7%	$1,261,855,699	$1,299,025,406	64.4%	65.3%

Two-Thirds of High-Cost Dual Eligibles are 65+ Years Old (76% of whom are Female); Among High-Cost Duals Under Age 65, 53% are Male

Age/Gender Distribution of Dual Eligibles Reaching $25,000 in Unadjusted CY2008 Claims Costs

	# Dual Eligibles			Percentage of Dual Eligibles		
Age Cohort	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
0 - 5	0	0	0	0%	0%	0%
6 - 18	1	3	4	0%	0%	0%
19 - 45	2,054	1,589	3,643	21%	8%	13%
46 - 64	3,261	3,093	6,354	33%	16%	22%
65+	4,507	14,538	19,045	46%	76%	66%
All Persons > $25,000	9,823	19,223	29,046	100%	100%	100%
Percentage of Persons	34%	66%	100%			

Half of High-Cost Dual Eligibles had 1+ Claims With a Mental Health Diagnosis

2008 Cost Cohort (Unadjusted)	Percent of Duals With 1+ Mental Health Diagnosis	Percent of Duals With 1+ Substance Abuse Diagnosis	Number of Duals With 1+ Mental Health Diagnosis	Number of Duals With 1+ Substance Abuse Diagnosis
Under $10,000	29.2%	0.9%	34,640	1,061
$10,000 to $24,999	52.4%	1.5%	13,863	397
$25,000 to $49,999	44.4%	0.4%	10,740	105
$50,000 to $99,999	87.1%	0.8%	3,200	29
> $100,000	70.3%	0.4%	826	5
Total	**36.3%**	**0.9%**	**63,269**	**1,597**
Subtotal, $25,000+	50.8%	0.5%	14,766	139

- Mental health conditions were especially prevalent in the high-cost group of duals (those in the $50,000 - $100,000 cost cohort), where relatively few persons are institutionalized.
- A substantial prevalence of mental health conditions exists in all claims cost cohorts, but very few duals are diagnosed with a substance abuse condition.

Dual Eligibles' Cost Distributions Differ Dramatically When Nursing Home Spending is Excluded

- Only 10,000 duals had non-nursing home costs above $25,000 during CY2008
  - Nursing home expenditures are the primary driver in dual eligibles' Medicaid costs – representing 40% of duals' total Medicaid spending and 60% of duals' spending among those reaching the $25,000 cost threshold
    - 70% of duals with costs above $25,000 had at least one nursing home claim
  - After excluding nursing home services, MRDD services are the predominant service category for those dual eligibles who do incur large-scale Medicaid costs (as shown on next slide)

	Dual Eligibles				Dual Eligibles' Expenditures (Excluding Nursing Home)			
CY2008 Cost Cohort	# Persons (Unadjusted $)	# Persons (Adjusted $)	% Distr (Unadjusted $)	% Distr (Adjusted $)	Unadjusted Costs, CY2008	Adjusted Costs, CY2008	% Distr (Unadjusted $)	% Distr (Adjusted $)
Under $10,000	140,599	140,903	80.7%	80.8%	$299,244,712	$294,961,286	25.8%	24.9%
$10,000 to $24,999	24,141	23,691	13.9%	13.6%	$379,013,053	$371,403,342	32.7%	31.3%
$25,000 to $49,999	5,898	5,772	3.4%	3.3%	$190,579,727	$187,375,124	16.4%	15.8%
$50,000 to $99,999	3,084	3,190	1.8%	1.8%	$218,232,283	$226,135,289	18.8%	19.1%
> $100,000	570	736	0.3%	0.4%	$71,789,424	$106,480,651	6.2%	9.0%
Total	**174,292**	**174,292**	**100.0%**	**100.0%**	**$1,158,859,199**	**$1,186,355,692**	**100.0%**	**100.0%**
Subtotal, > $25,000	9,552	9,698	5.5%	5.6%	$480,601,434	$519,991,064	41.5%	43.8%

Nursing Home Costs Account for a Majority of High-Cost Dual Eligibles' Medicaid Expenditures

	Individual Claims Cost Cohort During CY2008			
	$25,000 to $49,999	**$50,000 to $99,999**	**> $100,000**	**All $25,000+**
# Dual Eligible Persons	24,195	3,676	1,175	29,046
Total $$ (Unadjusted)	$850,715,851	$253,845,084	$157,294,765	$1,261,855,699
% Distribution of Duals' Expenditures				
Crossover Claims	7.9%	3.2%	1.6%	6.2%
MRDD Waiver	4.2%	68.7%	35.5%	21.1%
Personal Care	5.7%	2.1%	0.6%	4.3%
Day Care/Rehab	1.2%	0.8%	0.2%	1.0%
Nursing Home	68.8%	10.8%	52.6%	55.1%
Other	12.2%	14.4%	9.4%	12.3%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

"Crossover claims" involve copayments, deductibles, and coinsurance amounts for many services where Medicare is the primary payer (e.g., most inpatient hospital, outpatient hospital, physician and diagnostic services).

64% of Dual Eligibles With Nursing Home Usage Reached $25,000 in CY2008 Costs

- 20,345 duals with adjusted costs above $25,000 in CY2008 had at least one nursing home claim; these persons' overall costs averaged $40,638

- An additional 11,606 duals with adjusted costs below $25,000 CY2008 had at least one nursing home claim; these persons' overall costs averaged $12,544

NURSING HOME USERS

Nursing Home User Statistics

- In CY2008, 27,154 persons had nursing home costs above $10,000. The distribution of these individuals is shown below:
  - Medicare/Medicaid Dual Eligibles: 24,191 persons (89%)
    - Receiving MRDD and/or enrolled in Medicaid MCO: 72 persons (<1%)
  - Non-Dual Eligibles: 2,963 persons (11%)
    - Receiving MRDD and/or enrolled in Medicaid MCO: 48 persons (<1%)
- Among persons with $10,000+ in 2008 nursing home costs, 19,902 (73%) also had $10,000+ in nursing home costs in 2007; 15,047 (55%) also had $10,000 in nursing home costs during 2006.
- Looked at this data from the opposite direction, 27,248 persons had at least $10,000 in nursing home costs in CY2006. Among this subgroup, 74% again had nursing home costs above $10,000 in 2007 and 55% also had nursing home costs above $10,000 during 2008. The majority of persons no longer with nursing home costs above $10,000 in 2008 had evidence of a date of death during 2006 or 2007.

USERS OF MRDD SERVICES

MRDD Waiver Users Comprise 12% of Those Who Reached $25,000 Cost Threshold During 2008

- Among the 8,747 persons using MRDD services during 2008, 80% of their total spending was for MRDD services

	Individual Claims Cost Cohort During CY2008				
	< $25,000	**$25,000 to $49,999**	**$50,000 to $99,999**	**> $100,000**	**Total**
# Persons	2,147	1,716	3,758	1,126	8,747
Total $$ (adjusted)	$27,996,889	$63,897,941	$273,182,555	$154,334,521	$519,411,906
Distribution of Expenditures					
Inpatient Hospital (adjusted)	$131,364	$687,201	$2,356,371	$18,053,910	$21,228,847
Outpatient Hospital	$375,589	$544,343	$1,166,767	$1,308,574	$3,395,273
MRDD Waiver	$16,894,043	$46,975,679	$235,991,318	$114,201,303	$414,062,343
Personal Care	$1,798,015	$4,483,588	$3,653,728	$1,280,762	$11,216,093
Day Care/Rehab	$714,749	$983,281	$2,192,806	$933,946	$4,824,784
Physician/Clinic	$236,093	$259,246	$671,309	$997,405	$2,164,053
Pharmacy (adjusted)	$990,076	$1,664,565	$5,668,508	$4,648,243	$12,971,392
Nursing Home	$93,696	$783,596	$1,252,367	$2,625,463	$4,755,122
Other	$6,763,263	$7,516,442	$20,229,381	$10,284,913	$44,793,999

	Individual Claims Cost Cohort During CY2008				
	< $25,000	**$25,000 to $49,999**	**$50,000 to $99,999**	**> $100,000**	**Total**
# Persons	24.5%	19.6%	43.0%	12.9%	100.0%
Total $$ (adjusted)	5.4%	12.3%	52.6%	29.7%	100.0%
% Distribution of Expenditures					
Inpatient Hospital (adjusted)	0.5%	1.1%	0.9%	11.7%	4.1%
Outpatient Hospital	1.3%	0.9%	0.4%	0.8%	0.7%
MRDD Waiver	60.3%	73.5%	86.4%	74.0%	79.7%
Personal Care	6.4%	7.0%	1.3%	0.8%	2.2%
Day Care/Rehab	2.6%	1.5%	0.8%	0.6%	0.9%
Physician/Clinic	0.8%	0.4%	0.2%	0.6%	0.4%
Pharmacy (adjusted)	3.5%	2.6%	2.1%	3.0%	2.5%
Nursing Home	0.3%	1.2%	0.5%	1.7%	0.9%
Other	24.2%	11.8%	7.4%	6.7%	8.6%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Most MRDD Waiver Users are Dual Eligibles

- Approximately 67% of individuals using MRDD Waiver services are dually-eligible
  - This percentage applies across the board, including for individuals who incur greater than $25,000 per year in expenditure

- Further review of the eligibility processes for individuals with MRDD diagnoses and services should be undertaken to ensure that all appropriate third-party resources, particularly Medicare, are being identified

MANAGED CARE ENROLLEES

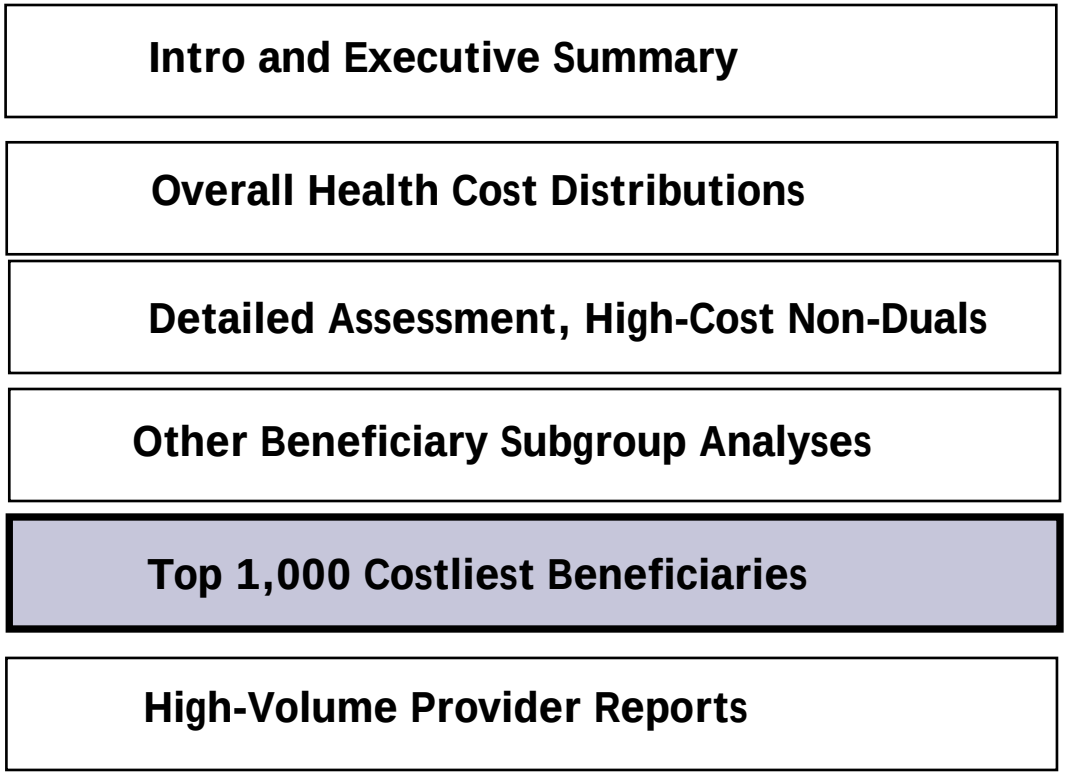
Almost 5,000 Individuals with 12-months MCO coverage incurred over $10,000 in FFS costs, primarily behavioral health services

Total Adjusted Costs in CY2008	# Persons With No Managed Care Months	# Persons With Managed Care Coverage				
		1-6 Months	7-11 Months	12 Months	Total With Some Managed Care	Total, All Persons
$0	76,359	-	-	-	-	76,359
$1 to $999	257,111	76,329	13,553	7	89,889	347,000
$1,000 to $9,999	189,682	53,096	119,913	242,689	415,698	605,380
$10,000 to $24,999	58,176	2,493	3,386	3,927	9,806	67,982
$25,000 to $49,999	37,207	686	689	483	1,858	39,065
$50,000 to $99,999	11,624	370	340	285	995	12,619
> $100,000	5,690	249	135	108	492	6,182
Total	635,849	133,223	138,016	247,499	518,738	1,154,587
Subtotal, $25,000+	54,521	1,305	1,164	876	3,345	57,866

Total Adjusted Costs in CY2008	% Persons With No Managed Care Months	% Persons With Managed Care Coverage				
		1-6 Months	7-11 Months	12 Months	Total With Some Managed Care	Total, All Persons
$0	100%	0%	0%	0%	0%	100%
$1 to $999	74%	22%	4%	0%	26%	100%
$1,000 to $9,999	31%	9%	20%	40%	69%	100%
$10,000 to $24,999	86%	4%	5%	6%	14%	100%
$25,000 to $49,999	95%	2%	2%	1%	5%	100%
$50,000 to $99,999	92%	3%	3%	2%	8%	100%
> $100,000	92%	4%	2%	2%	8%	100%
Total	55%	12%	12%	21%	45%	100%
Subtotal, $25,000+	94%	2%	2%	2%	6%	100%

A care management program should also consider including individuals with MCO coverage, particularly those with high behavioral health FFS costs, to ensure that services are being used effectively

Sections of Analysis



Assessment of Costliest 1,000 Beneficiaries (Adjusted Costs)

Costliest Beneficiary Overview

	Collective 2008 Costs (Adjusted)	% of Total Program Costs
Single Costliest Person	$2,617,549	0.04%
10 Costliest Persons	$14,510,968	0.23%
100 Costliest Persons	$76,844,280	1.21%
1,000 Costliest Persons	$357,139,629	5.64%

Costliest Beneficiary Trends, 2007-2008

	2007	2008	% Change
Single Costliest Person	$1,253,132	$2,617,549	109%
10th Costliest Person	$913,441	$1,112,135	18%
100th Costliest Person	$526,362	$552,017	5%
1,000th Costliest Person	$215,778	$223,413	4%

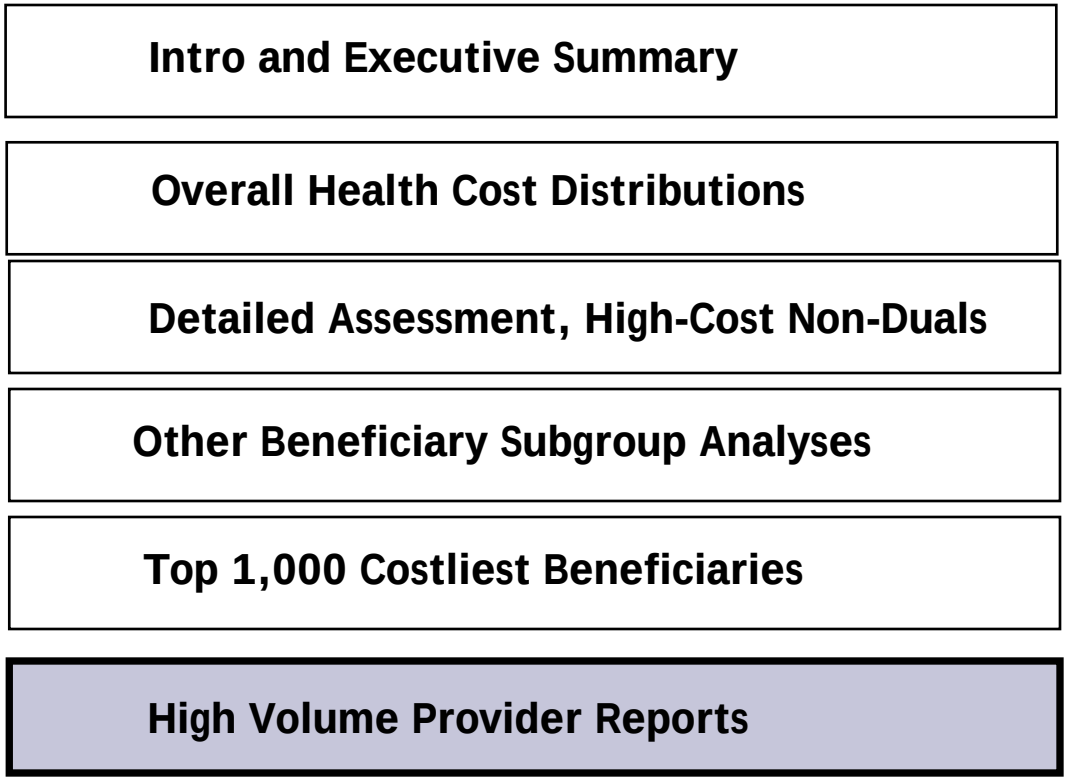
Assessment of MO HealthNet's "Top 1,000" Costliest Beneficiaries

- The number of high cost cases is increasing sharply. For example, 142 persons reached $250,000 in costs during 2008 versus 111 persons during 2007.
- Payments for the costliest beneficiary in 2008 totaled $2.6 million ($4.1 million prior to adjusting for pharmacy rebates).
  - In this instance, the individual has hemophilia and the high costs are due to high drug costs, which are not amenable to intervention.
  - Pre-rebate pharmacy costs were 93% of total costs across the "top 10" subgroup in 2008 (largely additional hemophilia cases).
- Most of the costliest persons have consistent/persistent high-costs:
  - 5 of 10 costliest 2008 persons were also among "Top 10" in 2007; only one of 2008's "Top 10" in 2008 was not among 2007's "Top 100".
  - 41 of 100 costliest 2008 persons were also among "Top 100" in 2007; another 21 of the "Top 100" in 2008 were in the "Top 1,000" in 2007.
  - 473 of 1,000 costliest 2008 persons were also among "top 1,000" in 2007

Additional Information on Top 1,000 Costliest Beneficiaries

- 57% of "Top 1,000" and 66% of "Top 100" were males (along with 9 of "Top 10")
- 66% of "Top 1,000" were age 19-64, 31% were < 19 years old, and only 3% were age 65+
- 26% of "Top 1,000" were dually eligible for Medicare

Sections of Analysis



Selected Reports on High-Volume Providers

- Inpatient Hospital
- Emergency Room
- Pharmacy
- MRI
- CT Scan

A Few Hospitals Account for a Large Share of MO HealthNet's Fee-For-Service Admissions

	CY2008 Admissions				
Hospital Name	Med/Surg	Behavioral	Med/Surg + Behavioral	Estimated Average Persons Hospitalized On Any Given Day	Rank
BARNES-JEWISH HOSPITAL	4,719	385	5,104	75.6	1
TRUMAN MEDICAL CENTER HOSPIT	2,922	447	3,369	50.9	2
L E COX MEDICAL CENTER	2,018	1,085	3,103	50.7	3
ST JOHNS REGIONAL	2,680	407	3,087	46.7	4
POPLAR BLUFF REGIONAL MEDICA	2,045	766	2,811	44.7	5
DEPAUL HEALTH CENTER	1,003	1,253	2,256	39.4	6
ST JOHNS REGIONAL	1,224	950	2,174	36.6	7
UNIVERSITY OF MO-COLUMBIA	2,347	43	2,390	34.6	8
ST LOUIS UNIVERSITY HOSPITAL	1,660	354	2,014	30.9	9
HEARTLAND REGIONAL MEDICAL C	1,504	386	1,890	29.3	10
ST ALEXIUS HOSPITAL	548	1,030	1,578	28.4	11
TWIN RIVERS REGIONAL MEDICAL	1,168	555	1,723	27.9	12
SSM ST JOSEPH HEALTH CENTER	388	1,102	1,490	27.6	13
ST JOHNS MERCY	989	579	1,568	25.8	14
LAKELAND REGIONAL HOSPITAL		1,112	1,112	22.2	15
ST ANTHONY'S MEDICAL CENTER	725	571	1,296	21.8	16
FREEMAN HEALTH SYSTEM	1,026	341	1,367	21.6	17
CHRISTIAN HOSPITAL NORTHEAST	1,040	278	1,318	20.5	18
SSM ST MARYS HEALTH CENTER	1,021	222	1,243	19.1	19
PHELPS COUNTY REGIONAL	715	397	1,112	18.2	20
Top 20 Subtotal	29,742	12,263	42,005		
All Other Hospitals	24,619	7,417	32,036		
Total, All Hospitals	**54,361**	**19,680**	**74,041**		
Top 10 Hospitals' Share of Total Volume	41%	31%	38%		
Top 20 Hospitals' Share of Total Volume	55%	62%	57%		

As noted in our Clinical Services Report, this concentration of inpatient hospital services presents an opportunity to station care managers at selected sites with large number of MO HealthNet participants

18 Hospitals Provided more than 5,000 ER Visits During CY2008

HOSPITAL NAME	2008 ER Visits	2007 ER Visits	2008 Visit Rank	% Change in # of ER Visits, 2007-2008	Average Paid Per ER Visit, 2008	Average Paid Per ER Visit, 2007	% Change in Cost Per ER Visit, 2007-2008
L E COX MEDICAL CENTER	25,617	20,405	1	26%	$190	$166	15%
ST JOHNS REGIONAL	17,795	18,148	2	-2%	$172	$144	19%
HEARTLAND REGIONAL MEDICAL C	12,809	11,726	3	9%	$454	$274	66%
BARNES-JEWISH HOSPITAL	12,451	11,120	4	12%	$287	$282	2%
ST JOHNS REGIONAL	12,191	12,526	5	-3%	$140	$131	7%
POPLAR BLUFF REGIONAL MEDICA	11,513	11,357	6	1%	$80	$69	16%
FREEMAN HEALTH SYSTEM	10,384	10,196	7	2%	$175	$152	16%
TRUMAN MEDICAL CENTER HOSPIT	9,806	9,059	8	8%	$605	$569	6%
DOCTORS HOSPITAL OF SPRINGFI	9,486	8,882	9	7%	$125	$107	17%
TWIN RIVERS REGIONAL MEDICAL	8,549	9,082	10	-6%	$159	$164	-3%
SOUTHEAST MISSOURI HOSPITAL	8,005	8,029	11	0%	$113	$81	39%
SKAGGS COMMUNITY HEALTH CENT	7,054	6,733	12	5%	$78	$81	-4%
OZARKS MEDICAL CENTER	5,838	5,545	13	5%	$189	$158	19%
FREEMAN NEOSHO HOSPITAL	5,645	5,028	14	12%	$146	$146	0%
AURORA COMMUNITY HOSPITAL	5,628	5,223	15	8%	$227	$218	4%
ST FRANCIS MEDICAL CENTER	5,586	5,210	16	7%	$122	$136	-10%
PHELPS COUNTY REGIONAL	5,181	9,007	17	-42%	$125	$102	22%
MISSOURI DELTA	5,046	5,374	18	-6%	$107	$60	78%
MCCUNE-BROOKS HOSPITAL	4,545	4,732	19	-4%	$135	$142	-5%
ST LOUIS UNIVERSITY HOSPITAL	4,478	4,002	20	12%	$232	$199	17%
RESEARCH MEDICAL CENTER	4,194	3,469	21	21%	$274	$283	-3%
COX-MONETT HOSPITAL, INC.	4,044	3,798	22	6%	$285	$155	84%
MISSOURI SOUTHERN HEALTHCARE	4,035	4,150	23	-3%	$75	$76	-2%
TEXAS COUNTY MEMORIAL HOSP.	3,987	3,677	24	8%	$75	$82	-9%
UNIVERSITY OF MO-COLUMBIA	3,922	4,011	25	-2%	$347	$333	4%
Subtotal, Top 25 Hospitals	**207,789**	**200,489**		**4%**	**$205**	**$174**	**18%**
TOTAL, ALL HOSPITALS	**375,896**	**380,583**		**-1%**	**$204**	**$172**	**18%**
Top 25 as % of Total	**55%**	**53%**					

Many of the hospitals with high ER volume also have high inpatient volume, allowing out stationed care managers to have even greater impact

Highest-Volume Pharmacy Providers

- Prescription volume is widely dispersed: 2,633 pharmacies provided at least one Medicaid prescription and 1,071 pharmacies filled at least 1,000 Medicaid prescriptions during 2008.
  - The top 25 pharmacy providers collectively filled only 14% of all MO HealthNet prescriptions during 2008.

Provider Name	2008 Number of Prescriptions	2007 Number of Prescriptions	2008 Claims Rank	% Change in # of Prescriptions, 2007-2008	Average Paid Per Prescription, 2008	Average Paid Per Prescription, 2007	% Change in Cost Per Prescription, 2007-2008
INTERLOCK PHARMACY SYSTEMS	182,466	203,448	1	-10%	$41.11	$38.55	7%
KILGORE'S MEDICAL PHARMACY	73,425	78,411	2	-6%	$38.72	$38.30	1%
MANAGED HEALTHCARE PHARMACY	57,493	69,574	3	-17%	$35.67	$36.34	-2%
BEVERLY HILLS PHARMACY	54,954	53,335	4	3%	$41.34	$40.09	3%
LTC PHARMACY SERVICES	54,350	54,536	5	0%	$37.83	$37.05	2%
SEMO DRUGS OF KENNETT	48,357	50,976	6	-5%	$36.22	$35.77	1%
PATIENTS FIRST PHARMACY	45,209	58,864	7	-23%	$43.70	$44.98	-3%
OMNICARE PHARMACY OF THE MID	43,567	47,204	8	-8%	$43.85	$44.02	0%
CENTRAL PHARMACY	41,872	38,834	9	8%	$14.59	$15.03	-3%
KNEIBERT CLINIC PHARMACY	40,711	43,798	10	-7%	$36.34	$34.80	4%
PRESCRIPTION DRUG STORE	39,903	44,912	11	-11%	$37.29	$34.02	10%
THE MEDICINE SHOPPE	39,744	105,876	12	-62%	$43.18	$43.02	0%
SUPER D DRUGS #16	38,994	41,730	13	-7%	$35.33	$34.36	3%
ARCADIA VALLEY DRUG	35,543	23,197	14	53%	$36.79	$36.15	2%
FAMILY PHARMACY HEALTHCARE S	35,302	37,189	15	-5%	$37.07	$36.68	1%
TEKO PHARMACY	33,807	36,475	16	-7%	$27.66	$27.21	2%
WALGREENS #10845	33,518	24,181	17	39%	$40.29	$36.54	10%
MEDICAL CENTER PHARMACY	32,594	37,478	18	-13%	$26.99	$27.48	-2%
WALGREENS #05286	32,244	34,688	19	-7%	$40.10	$39.70	1%
WEST PINE PHARMACY	32,149	34,803	20	-8%	$50.71	$51.90	-2%
PAMIDA PHARMACY #663	32,112	38,092	21	-16%	$33.04	$33.42	-1%
WALGREENS #03598	31,806	37,504	22	-15%	$42.70	$42.66	0%
OVERTURF DRUG STORES INC - M	31,405	35,987	23	-13%	$35.07	$33.93	3%
CVS/PHARMACY #5645	31,224	32,917	24	-5%	$40.33	$39.73	1%
WALGREENS #03688	31,054	33,830	25	-8%	$34.37	$32.56	6%
Subtotal, Top 25 Providers	**1,153,803**	**1,297,839**		**-11%**	**$37.77**	**$37.37**	**1%**
TOTAL, ALL PROVIDERS	**8,274,762**	**9,072,068**		**-9%**	**$45.53**	**$44.35**	**3%**
Top 25 as % of Total	**14%**	**14%**					

Highest-Volume MRI Providers, Professional Component

- The Top 25 providers (by claims volume) collectively performed 72% of all MO HealthNet MRI exams (professional component) during 2007 and 2008.

PROVIDER NAME	2007 Number of Claims	2008 Number of Claims	% Change, Claims Volume, 2007-2008	2008 Claim Rank	Average Paid Per MRI Claim, 2007	Average Paid Per MRI Claim, 2008	% Change, $ Paid Per Claim, 2007-2008
WASHINGTON UNIVERSITY	3,239	3,305	2.0%	1	$127	$131	2.7%
LITTON & GIDDINGS RADIOLOGIC	1,927	1,848	-4.1%	2	$125	$116	-7.2%
ST JOHNS PHYSICIANS & CLINIC	2,855	1,791	-37.3%	3	$118	$118	-0.5%
CAPE RADIOLOGY GROUP PC	2,048	1,614	-21.2%	4	$105	$106	1.0%
UNIVERSITY PHYSICIANS SPECIA	1,525	1,584	3.9%	5	$122	$114	-6.0%
RADIOLOGY SPECIALISTS OF ST	863	1,073	24.3%	6	$110	$108	-1.6%
ST LOUIS UNIVERSITY	786	885	12.6%	7	$124	$116	-6.4%
TRUMAN MEDICAL CENTER EAST	1,535	815	-46.9%	8	$129	$126	-2.1%
ALLIANCE RADIOLOGY PA	716	669	-6.6%	9	$116	$118	1.5%
SOUTHWEST RADIOLOGY, LTD.	675	661	-2.1%	10	$98	$97	-0.3%
WEST COUNTY RADIOLOGICAL GRO	504	635	26.0%	11	$125	$126	0.5%
NORTHEAST MISSOURI IMAGING	594	521	-12.3%	12	$112	$115	2.3%
ST JOHNS REGIONAL MEDICAL CE	426	521	22.3%	12	$117	$113	-3.1%
MIDWEST RADIOLOGICAL	459	478	4.1%	14	$103	$102	-1.2%
NORTHLAND RADIOLOGY, INC.	253	383	51.4%	15	$117	$116	-0.7%
PALMARIS IMAGING LLC	560	375	-33.0%	16	$104	$102	-2.1%
LAKES REGION IMAGING LLC	407	375	-7.9%	16	$105	$106	1.3%
CITIZENS MEMORIAL HOSPITAL	85	353	315.3%	18	$103	$99	-3.6%
TRUMAN MEDICAL CENTERS INC		340		19	#N/A	$139	#N/A
RADIOLOGY CONSULTANTS INC	373	322	-13.7%	20	$109	$101	-7.3%
ERNST RADIOLOGY CLINIC, INC.	321	322	0.3%	20	$116	$112	-3.5%
POPLAR BLUFF RADIOLOGY SERVI	445	316	-29.0%	22	$97	$95	-2.0%
DOCTORS HOSPITAL OF SPRINGFI	386	315	-18.4%	23	$99	$99	-0.3%
NEURO INTERVENTIONAL AND DIA		314		24	#N/A	$132	#N/A
ST JOHNS PHYSICIANS & CLINIC	59	310	425.4%	25	$110	$113	2.4%
Subtotal, Top 25 Providers	**21,041**	**20,125**	**-4.4%**		**$117**	**$116**	**-1.0%**
Subtotal, All Other Providers	**8,333**	**7,905**	**-5.1%**		**$105**	**$108**	**2.9%**
Total, All Providers	**29,374**	**28,030**	**-4.6%**		**$114**	**$114**	**0.1%**
Top 25 as % of Total	**72%**	**72%**					

Highest-Volume MRI Providers, Technical Component

- The Top 25 providers (by claims volume) collectively performed 60% of all MO HealthNet MRI exams (technical component) during 2007 and 2008.

PROVIDER NAME	2007 Number of Claims	2008 Number of Claims	% Change, Claims Volume, 2007-2008	2008 Claim Rank	Average Paid Per MRI Claim, 2007	Average Paid Per MRI Claim, 2008	% Change, $ Paid Per Claim, 2007-2008
L E COX MEDICAL CENTER	1,620	1,419	-12.4%	1	$664	$693	4.3%
ST JOHNS REGIONAL	2,404	1,323	-45.0%	2	$495	$583	17.8%
BARNES-JEWISH HOSPITAL	1,347	1,110	-17.6%	3	$968	$903	-6.7%
DOCTORS HOSPITAL LLC	333	837	151.4%	4	$935	$1,269	35.6%
UNIVERSITY OF MO-COLUMBIA	1,185	830	-30.0%	5	$503	$512	1.9%
TRUMAN MEDICAL CENTER HOSPIT	781	645	-17.4%	6	$1,111	$1,204	8.4%
HEARTLAND REGIONAL MEDICAL C	602	631	4.8%	7	$650	$1,170	79.9%
CARDINAL GLENNON		473		8		$769	
POPLAR BLUFF MEDICAL PARTNER	448	471	5.1%	9	$224	$298	32.7%
ST LOUIS UNIVERSITY HOSPITAL	443	470	6.1%	10	$917	$889	-3.0%
OZARKS MEDICAL CENTER	756	401	-47.0%	11	$439	$420	-4.2%
FREEMAN HEALTH SYSTEM	517	395	-23.6%	12	$444	$424	-4.3%
SKAGGS COMMUNITY HEALTH CENT	353	374	5.9%	13	$367	$321	-12.5%
ST LOUIS CHILDRENS HOSPITAL	440	372	-15.5%	14	$1,342	$1,350	0.6%
ST JOHNS REGIONAL	349	367	5.2%	15	$422	$472	12.0%
TWIN RIVERS REGIONAL MEDICAL	667	358	-46.3%	16	$1,511	$1,528	1.1%
BLUFF RADIOLOGY GROUP LLC	553	351	-36.5%	17	$214	$293	37.3%
DOCTORS HOSPITAL OF SPRINGFI	602	313	-48.0%	18	$1,014	$983	-3.0%
ST JOHNS MERCY	325	310	-4.6%	19	$928	$790	-14.9%
CITIZENS MEMORIAL HOSPITAL	725	304	-58.1%	20	$525	$486	-7.5%
POPLAR BLUFF REGIONAL MEDICA	281	303	7.8%	21	$362	$429	18.4%
ADVANCED HEALTHCARE MEDICAL	617	296	-52.0%	22	$1,221	$1,172	-4.0%
ST FRANCIS MEDICAL CENTER	362	280	-22.7%	23	$785	$671	-14.5%
MISSOURI DELTA	569	270	-52.5%	24	$759	$715	-5.9%
ST JOHNS PHYSICIANS & CLINIC	337	262	-22.3%	25	$236	$298	26.1%
Subtotal, Top 25 Providers	**16,616**	**13,165**	**-20.8%**		**$707**	**$767**	**8.6%**
Subtotal, All Other Providers	**11,202**	**8,734**	**-22.0%**		**$631**	**$678**	**7.6%**
Total, All Providers	**27,818**	**21,899**	**-21.3%**		**$676**	**$732**	**8.2%**
Top 25 as % of Total	**60%**	**60%**					

There appears to be a significant variation in average cost among facilities, as well as year-to-year cost increases, that warrants additional review (e.g., the result of the cost-to-charges reimbursement system)

Highest-Volume CT Scan Providers, Professional Component

- The Top 25 providers (by claims volume) collectively performed approximately three-quarters of all MO HealthNet CT Scans (professional component) during 2007 and 2008.

PROVIDER NAME	2007 Number of Claims	2008 Number of Claims	% Change, Claims Volume, 2007-2008	2008 Claim Rank	Average Paid Per MRI Claim, 2007	Average Paid Per MRI Claim, 2008	% Change, $ Paid Per Claim, 2007-2008
WASHINGTON UNIVERSITY	10,749	10,842	0.9%	1	$47	$49	4.2%
LITTON & GIDDINGS RADIOLOGIC	5,806	6,746	16.2%	2	$47	$49	4.6%
CAPE RADIOLOGY GROUP PC	6,264	6,604	5.4%	3	$43	$46	8.2%
UNIVERSITY PHYSICIANS SPECIA	6,480	6,343	-2.1%	4	$46	$49	5.4%
ST JOHNS PHYSICIANS & CLINIC	6,783	5,852	-13.7%	5	$48	$49	3.7%
ST LOUIS UNIVERSITY	4,081	4,408	8.0%	6	$46	$49	4.9%
RADIOLOGY SPECIALISTS OF ST	3,208	3,895	21.4%	7	$46	$48	3.5%
ALLIANCE RADIOLOGY PA	3,569	3,615	1.3%	8	$48	$50	3.3%
WEST COUNTY RADIOLOGICAL GRO	2,869	3,551	23.8%	9	$47	$49	3.3%
MIDWEST RADIOLOGICAL	2,492	2,943	18.1%	10	$47	$49	3.4%
SOUTHWEST RADIOLOGY, LTD.	2,475	2,891	16.8%	11	$45	$47	4.1%
TRUMAN MEDICAL CENTER EAST	5,300	2,780	-47.5%	12	$56	$55	-1.1%
SCOTT RADIOLOGICAL GROUP	2,419	2,528	4.5%	13	$48	$49	2.3%
ST JOHNS REGIONAL MEDICAL CE	1,895	2,339	23.4%	14	$47	$49	5.7%
HAZEL, JR., JAMES G., MD	2,448	2,082	-15.0%	15	$44	$45	2.6%
KENNETT HMA PHYSICIAN MANAGE	1,434	1,993	39.0%	16	$42	$46	9.8%
NORTHLAND RADIOLOGY, INC.	1,572	1,950	24.0%	17	$47	$50	6.3%
ERNST RADIOLOGY CLINIC, INC.	1,817	1,947	7.2%	18	$46	$49	6.6%
NORTHEAST MISSOURI IMAGING	2,650	1,940	-26.8%	19	$46	$49	6.4%
PALMARIS IMAGING LLC	2,753	1,845	-33.0%	20	$46	$48	3.6%
SOUTH COUNTY	2,019	1,658	-17.9%	21	$48	$50	5.4%
POPLAR BLUFF REGIONAL MEDICA	1,970	1,645	-16.5%	22	$45	$48	6.6%
MIDWEST RADIOLOGY INC	1,728	1,613	-6.7%	23	$47	$48	2.2%
RADIOLOGIC IMAGING CONSULTAN	1,393	1,570	12.7%	24	$48	$50	3.8%
MISSOURI DELTA RADIOLOGY GRP	1,417	1,534	8.3%	25	$46	$47	1.8%
Subtotal, Top 25 Providers	**85,591**	**85,114**	**-0.6%**		**$47**	**$49**	**3.8%**
Subtotal, All Other Providers	**26,664**	**31,567**	**18.4%**		**$46**	**$48**	**5.5%**
Total, All Providers	**112,255**	**116,681**	**3.9%**		**$47**	**$49**	**4.1%**
Top 25 as % of Total	**76%**	**73%**					

Highest-Volume CT Scan Providers, Technical Component

- The Top 25 providers (by claims volume) collectively performed approximately 60% of all MO HealthNet CT Scans (technical component) during 2007 and 2008.

PROVIDER NAME	2007 Number of Claims	2008 Number of Claims	% Change, Claims Volume, 2007-2008	2008 Claim Rank	Average Paid Per MRI Claim, 2007	Average Paid Per MRI Claim, 2008	% Change, $ Paid Per Claim, 2007-2008
L E COX MEDICAL CENTER	5,409	6,004	11.0%	1	$357	$412	15.2%
ST JOHNS REGIONAL	5,721	4,266	-25.4%	2	$338	$378	11.8%
UNIVERSITY OF MO-COLUMBIA	5,352	3,492	-34.8%	3	$293	$319	9.0%
BARNES-JEWISH HOSPITAL	4,832	3,487	-27.8%	4	$472	$456	-3.4%
TRUMAN MEDICAL CENTER HOSPIT	3,153	3,054	-3.1%	5	$584	$615	5.4%
ST LOUIS UNIVERSITY HOSPITAL	2,774	2,893	4.3%	6	$432	$460	6.6%
HEARTLAND REGIONAL MEDICAL C	2,777	2,569	-7.5%	7	$429	$744	73.4%
PEMISCOT MEMORIAL HOSPITAL	2,819	2,142	-24.0%	8	$583	$545	-6.6%
ST FRANCIS MEDICAL CENTER	2,359	2,125	-9.9%	9	$421	$393	-6.7%
TWIN RIVERS REGIONAL MEDICAL	2,409	1,873	-22.2%	10	$1,015	$1,084	6.8%
POPLAR BLUFF REGIONAL MEDICA	1,730	1,712	-1.0%	11	$275	$352	28.1%
ST JOHNS MERCY	1,584	1,667	5.2%	12	$421	$407	-3.3%
OZARKS MEDICAL CENTER	2,076	1,595	-23.2%	13	$378	$384	1.6%
SKAGGS COMMUNITY HEALTH CENT	1,387	1,594	14.9%	14	$350	$319	-8.8%
ST JOHNS REGIONAL	1,500	1,578	5.2%	15	$350	$378	7.9%
FREEMAN HEALTH SYSTEM	1,523	1,418	-6.9%	16	$323	$330	2.0%
DEPAUL HEALTH CENTER	1,359	1,319	-2.9%	17	$297	$313	5.5%
PHELPS COUNTY REGIONAL	2,165	1,232	-43.1%	18	$303	$380	25.4%
SOUTHEAST MISSOURI HOSPITAL	1,220	1,159	-5.0%	19	$505	$536	6.2%
MISSOURI DELTA	1,576	1,129	-28.4%	20	$467	$460	-1.6%
ST LUKE'S HOSPITAL OF KC	1,058	1,019	-3.7%	21	$249	$219	-12.1%
SSM ST MARYS HEALTH CENTER	1,000	979	-2.1%	22	$326	$410	25.6%
LAKE REGIONAL HOSPITAL	938	956	1.9%	23	$365	$309	-15.6%
NORTH KANSAS CITY HOSPITAL	876	956	9.1%	23	$294	$325	10.5%
DOCTORS HOSPITAL OF SPRINGFI	1,221	894	-26.8%	25	$508	$532	4.8%
Subtotal, Top 25 Providers	**58,818**	**51,112**	**-13.1%**		**$420**	**$453**	**7.9%**
Subtotal, All Other Providers	**39,854**	**35,945**	**-9.8%**		**$447**	**$473**	**5.7%**
Total, All Providers	**98,672**	**87,057**	**-11.8%**		**$431**	**$461**	**7.0%**
Top 25 as % of Total	**60%**	**59%**					

There appears to be a significant variation in average cost among facilities, as well as year-to-year cost increases, that warrants additional review (e.g., the result of the cost-to-charges reimbursement system)

TECHNICAL APPENDIX

Data Sources Overview

- Fee-for-service claims and eligibility data files were provided to Lewin by MO HealthNet during fall of 2009. These data included all FFS claims incurred from January 2006 through August 2009.
- Capitation payments to MCOs were included as "claims" on the data files Lewin received. However, data on the services received by MCO enrollees and paid for by the MCOs ("encounter data") were not provided to Lewin or analyzed.
- Due to the incompleteness of the 2009 data (both the months that were unavailable altogether and the claims lag issues associated with the months that were available), our analyses focused on CY2006, CY2007, and CY2008 usage and costs. The CY2008 data was relied upon most heavily as the most recent, complete year of available information.

Definitional Issues

- Persons were considered a Medicare/Medicaid dual eligible if they had 1+ month of Medicare coverage during a given year.
- Persons were considered an MCO enrollee if they had 1+ month of managed care enrollment during the year.
- Mental health services were defined by using the primary care diagnosis code on all inpatient and outpatient claims, and by using the therapeutic drug class for pharmacy claims.
- Medical/surgical admissions were defined as all admissions not otherwise defined as psychiatric, newborn, or delivery-related.
- Psychiatric admissions were defined using primary diagnosis code
- Claims dollar adjustments were made for inpatient and pharmacy services in many instances, as described on Slide 6.