

First-Cut Simulation of Medicaid Fee-for-Service Payments under DRG Payment

Discussion with the Rhode Island
Community Hospital Task Force

January 22, 2008

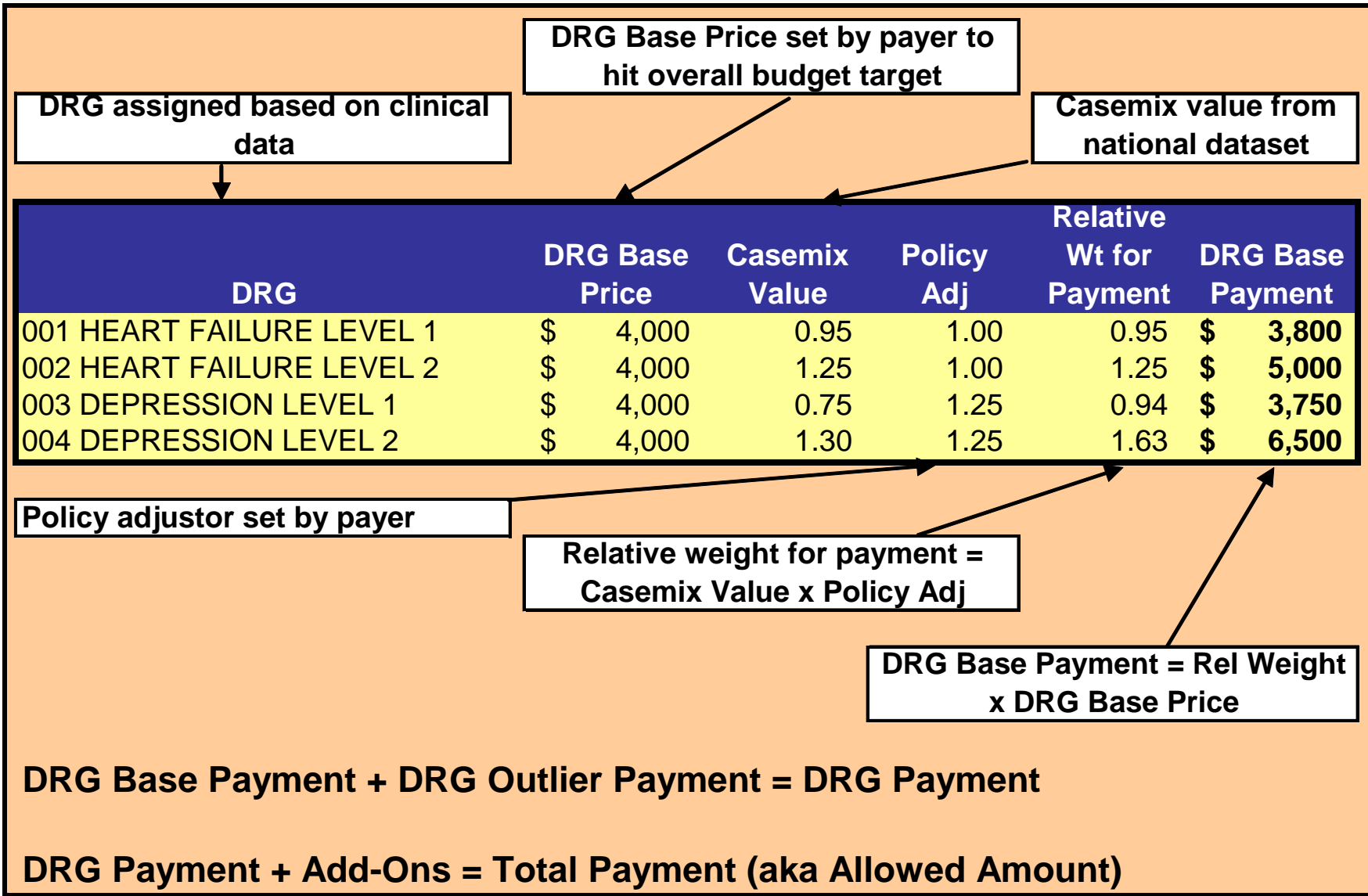
This presentation includes simulation results for purposes of illustrating how a DRG-based payment method works. Results do not reflect ACS recommendations or DHS proposals.

We expect that impacts by care category and by hospital will change significantly based on decisions about policy adjustors, outlier calculations and payment policies.

- ▲ Ensure access to a full range of quality services
- ▲ Financially, access is presumed to reflect:
 - Pay-to-cost ratios
 - Changes in payment
 - Especially when Medicaid has high share
 - Especially when hospitals have discretion over the line of business
- ▲ Some out-of-state hospitals are essential providers
- ▲ Reward efficiency
- ▲ Minimize administrative burden

- ▲ **Fairness:** Similar payment for similar care
- ▲ **Quality and value-based purchasing:** Understanding of what is being purchased
- ▲ **Efficiency:** Fixed rates reward efficiency
- ▲ **Acceptability/transferability:** DRGs widely used and understood
- ▲ **Resource-based:** Higher pay for harder cases
- ▲ **Simplicity:** Clinical algorithm is complex but payment method is relatively simple. No year-end cost settlement
- ▲ **Outlier recognition:** Included
- ▲ **Comprehensiveness:** Covers all care

Mechanics of DRG Calculations



- ▲ Policy adjustors
 - Boost relative weights for specific sets of services or specific populations
- ▲ Differential base prices
 - Boost base prices for specific hospitals
- ▲ Carve-outs
 - Exempt certain stays from DRG payment and pay per diem or percent of cost
- ▲ Add-ons
 - Additional payments unconnected to DRG pricing

- ▲ A goal of ensuring access to a range of quality services
- ▲ Evidence-based decision-making
- ▲ Open discussion of policy trade-offs
- ▲ Transparency builds trust

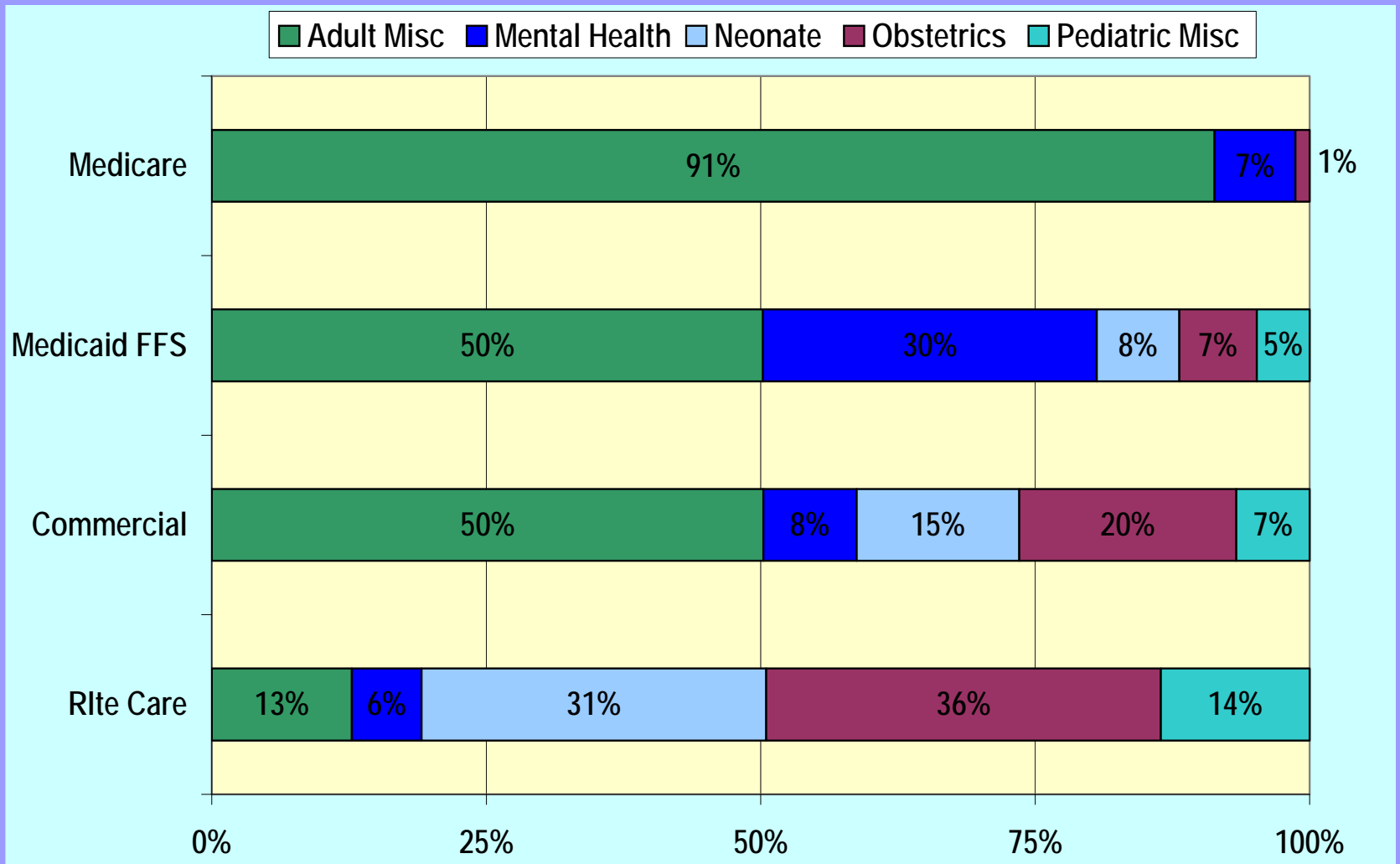
Dataset for Analysis



- ▶ Discharges from Oct. 2005 to Sept. 2006
- ▶ Incomplete stays and anomalous stays excluded
- ▶ Baseline payments adjusted for expected impact of year-end settlement
- ▶ Mental health stays over 30 days to be analyzed separately
- ▶ Preliminary dataset pending review from hospitals, others

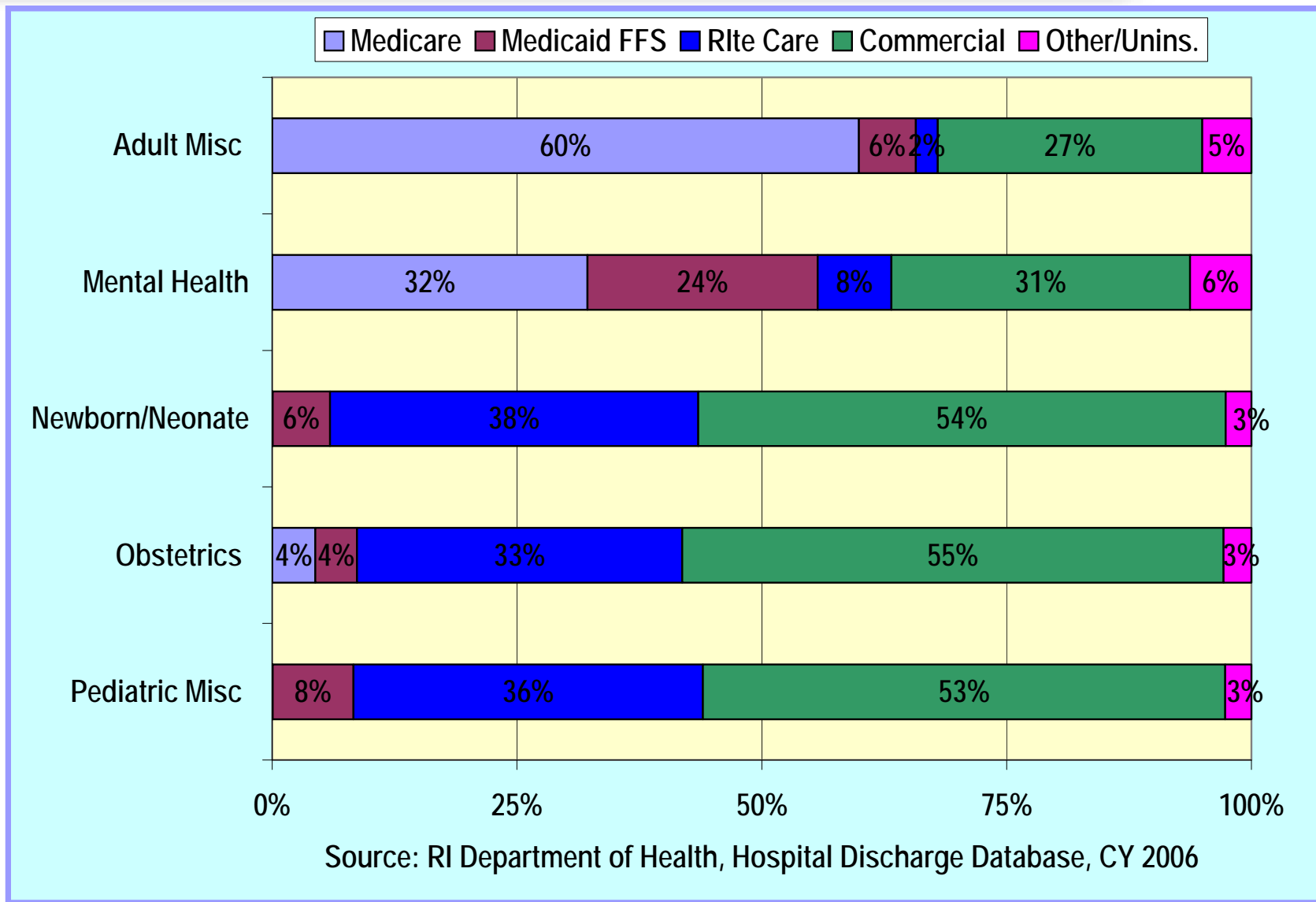
	Stays	Payments (Millions)
Initial dataset	10,298	\$ 134.3
<i>Exclude the following</i>		
1. Avg payment < \$100/day	49	\$ 0.0
2. Error DRGs	23	\$ 1.8
3. Still a patient	689	\$ 20.4
4. Avg charge < \$500/day	92	\$ 0.7
5. Avg charge > \$50,000/day	32	\$ 0.9
6. Mental health LOS > 30 days	72	\$ 5.5
Stays in simulation dataset	9,341	\$ 105.0
After settlement adjustment	9,341	\$ 99.4

The Business of RI Payers

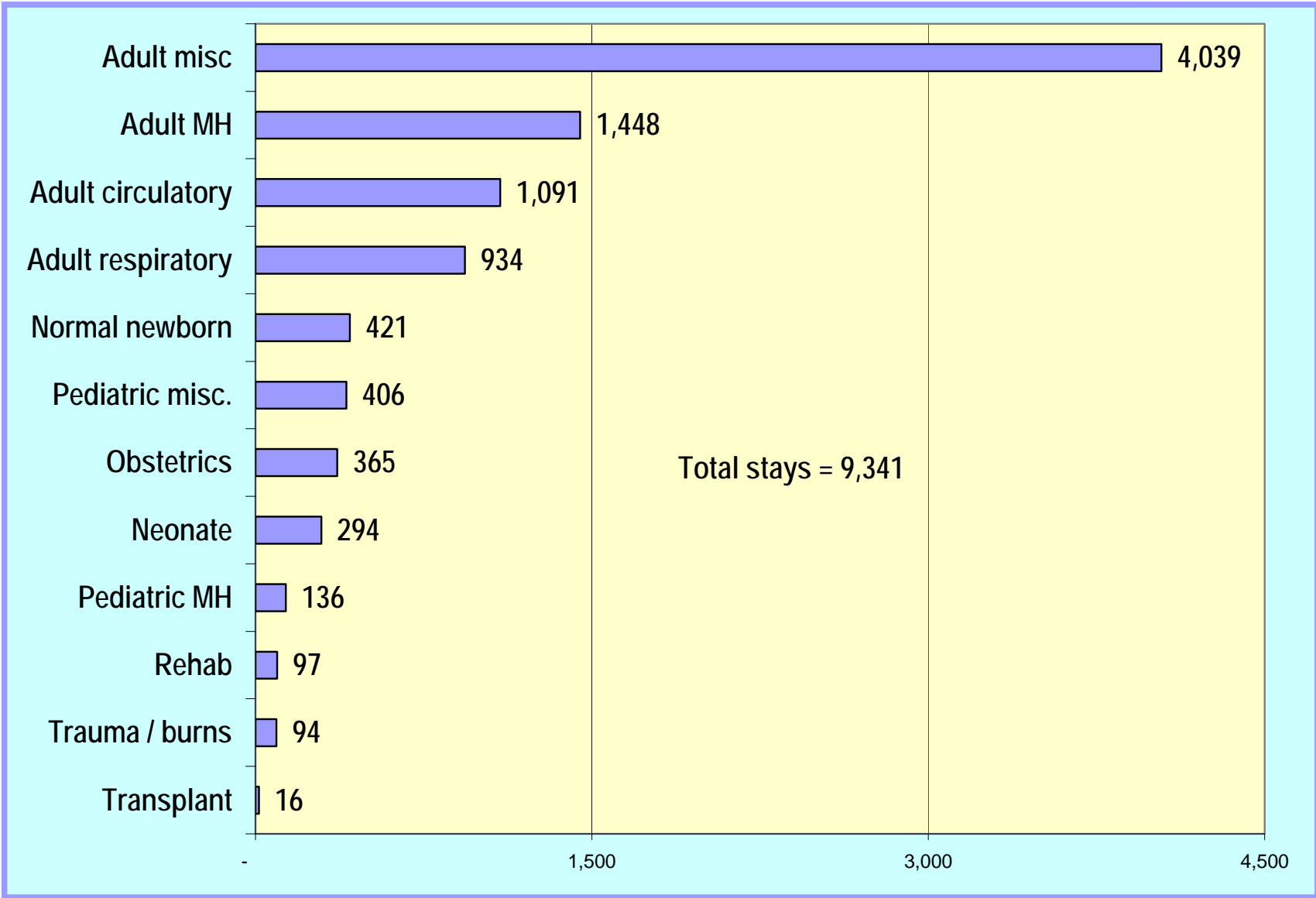


Source: RI Department of Health, Hospital Discharge Database, CY 2006

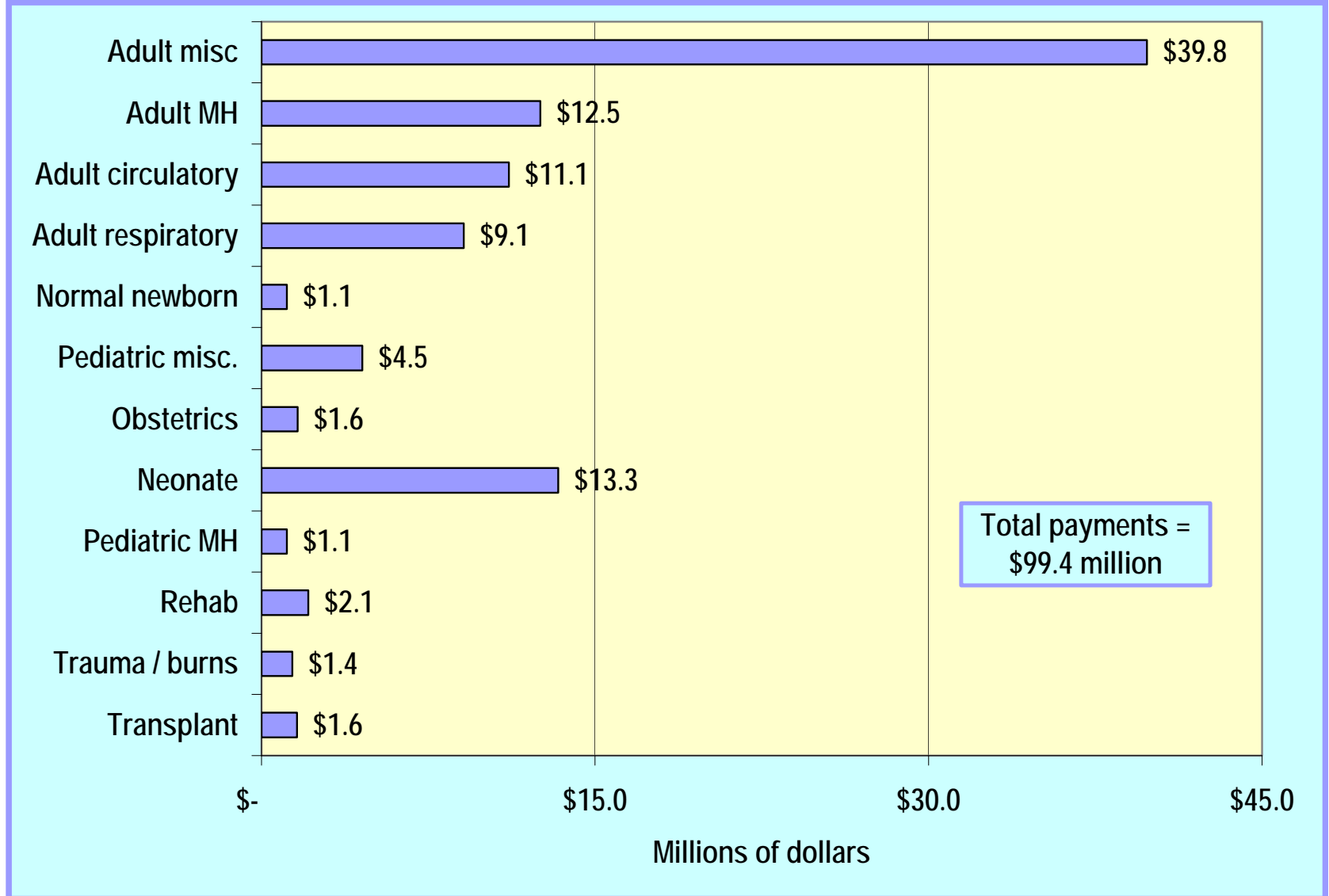
RI Market Shares by Care Category



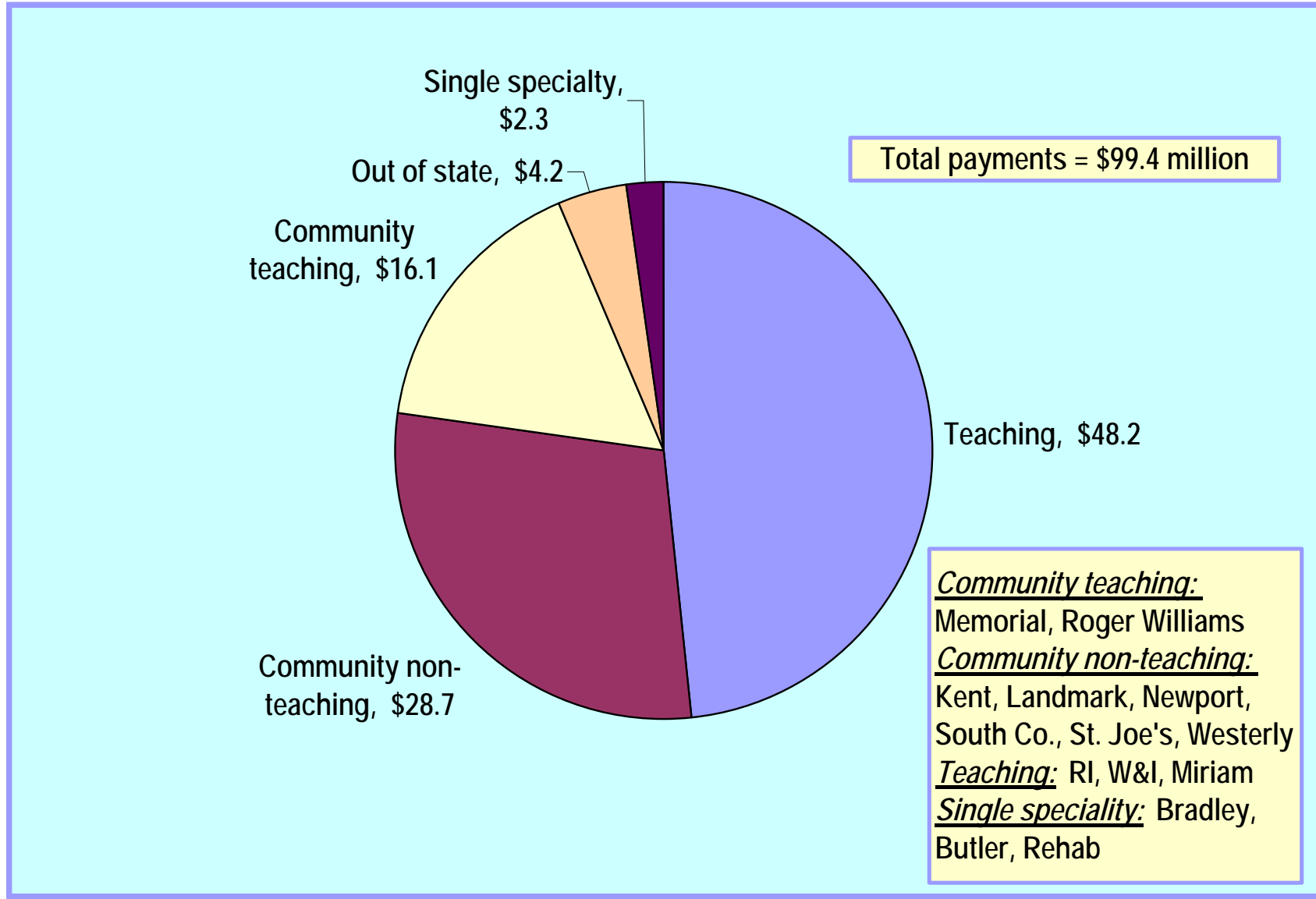
Stays by Medicaid Care Category



Payments by Medicaid Care Category



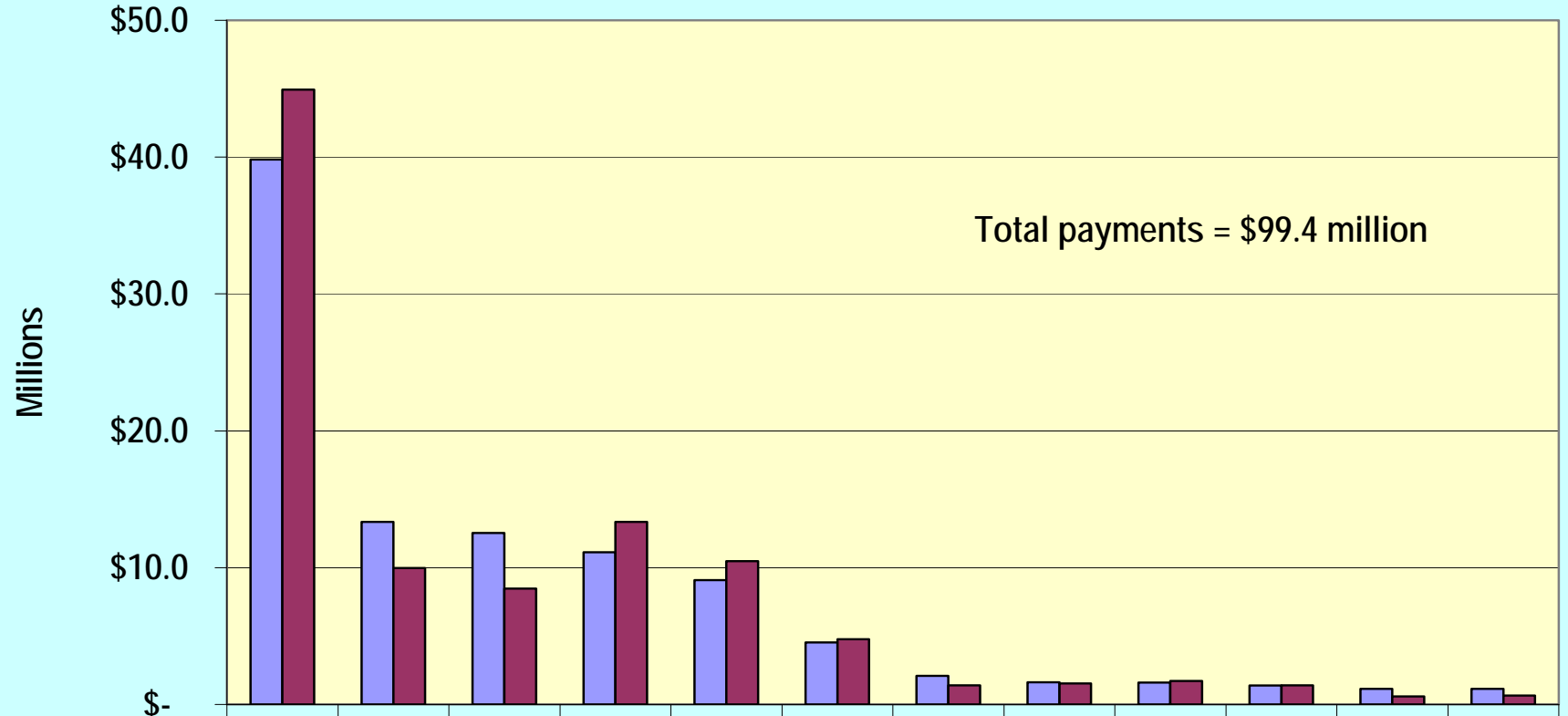
Payments by Hospital Category



Simulation 1 by Care Category



No Policy Adjustor



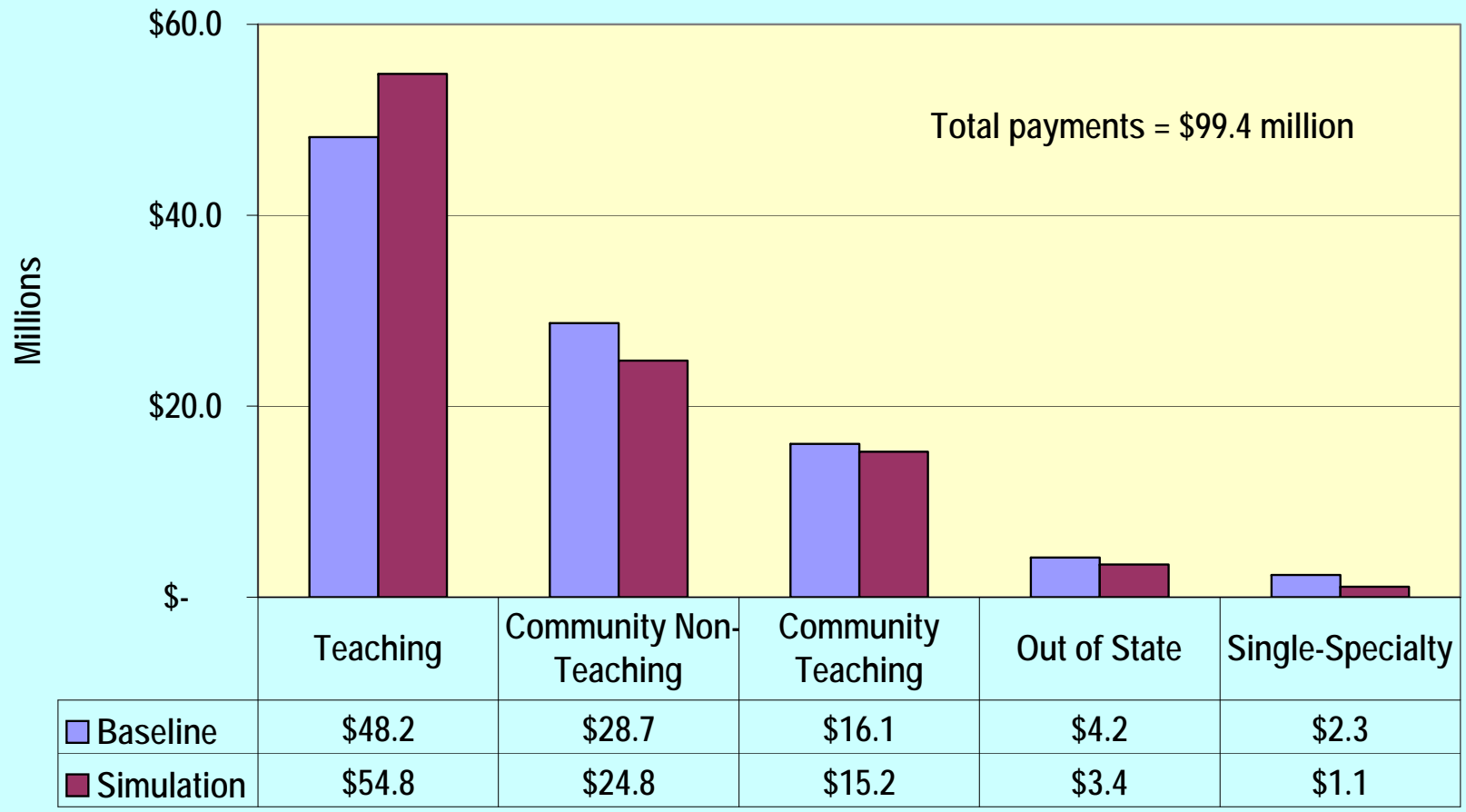
Total payments = \$99.4 million

	Adult Misc	Neonate	Adult MH	Adult Circ	Adult Resp	Pediatric Misc	Rehab	Obstetric	Transplant	Trauma / Burns	Normal newborn	Pediatric MH
■ Baseline	\$39.8	\$13.3	\$12.5	\$11.1	\$9.1	\$4.5	\$2.1	\$1.6	\$1.6	\$1.4	\$1.1	\$1.1
■ Simulation	\$44.9	\$10.0	\$8.5	\$13.3	\$10.5	\$4.8	\$1.4	\$1.5	\$1.7	\$1.4	\$0.6	\$0.7

Simulation 1 by Hospital Category



No Policy Adjustor



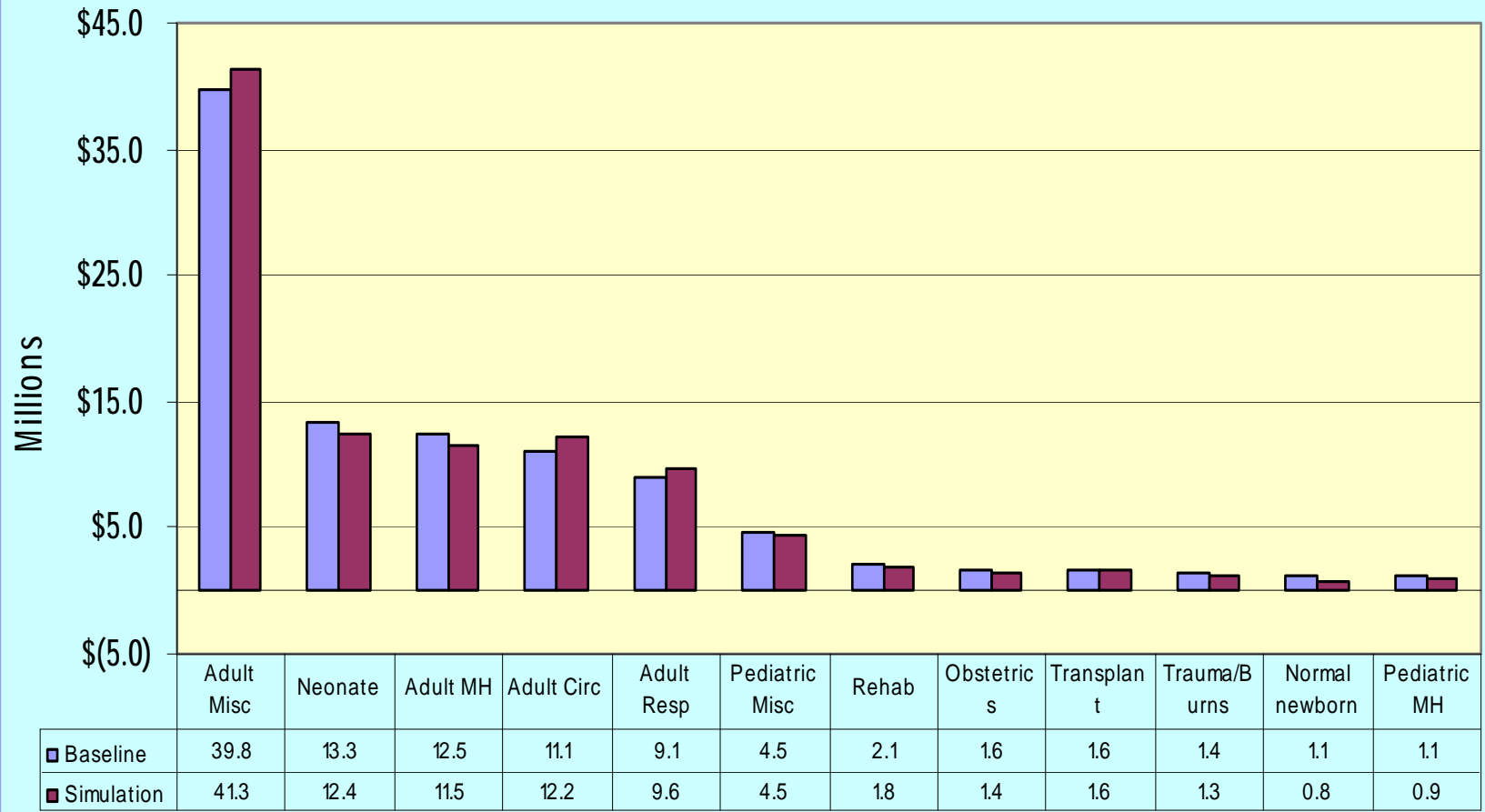
	Simulation 1	Simulation 2
Total stays	9,341	9,341
Baseline payments	\$99.4 million	\$99.4 million
Average casemix	1.00	1.00
Stays affected by pol adj	None	2,396
Policy adjustor	None	1.50
Average relative weight	1.00	1.10
Base price	\$10,256	\$9,314
Base Payments*	\$94.4 million	\$94.4 million
Outlier payments (5%)	\$4.9 million	\$4.9 million
Total payments	\$99.3 million	\$99.3 million
Outlier model	Medicare model	Medicare model
Transfer adjustment	Yes	Yes

* After effect of transfer adjustment

Simulation 2 by Care Category



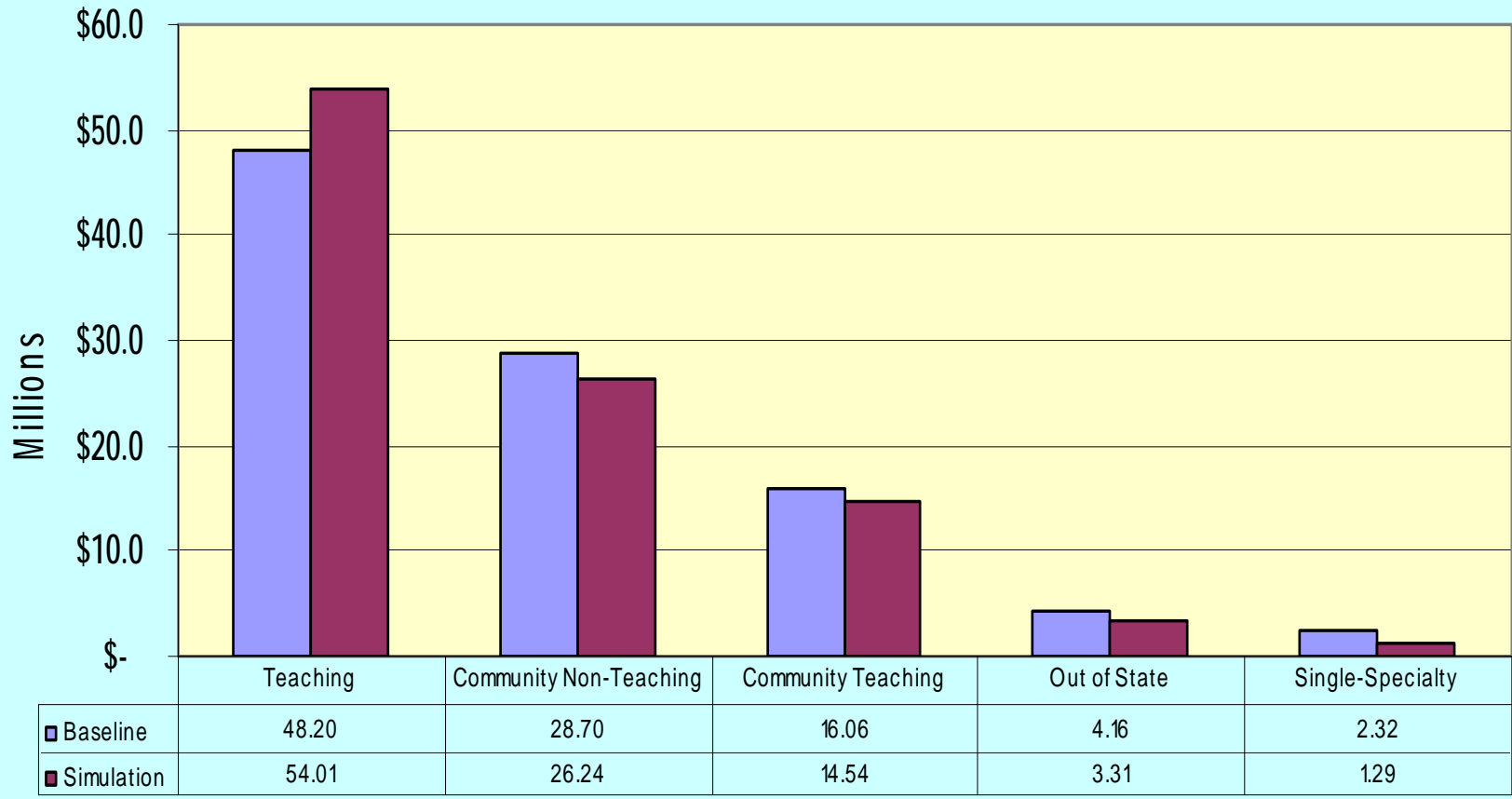
Policy Adjustor Mental Health, Normal Newborn, Neonate and Rehab



Simulation 2 by Hospital Category



Policy Adjustor Mental Health, Normal Newborn, Neonate and Rehab



Simulated DRG Payment Rates



Top 10 APR-DRGs

APR-DRG	Stays	Payments	Simulation 1 Rate	Simulation 2 Rate
751-2 Major depressive disorders & other/unspecified psychoses	281	\$ 2,507,822	\$ 5,756	\$ 7,841
593-4 Neonate birthwt 750-999g w/o major procedure	7	\$ 2,019,083	\$ 157,244	\$ 214,203
753-2 Bipolar disorders	224	\$ 1,985,944	\$ 6,669	\$ 9,084
750-2 Schizophrenia	146	\$ 1,781,253	\$ 8,936	\$ 12,172
720-4 Septicemia & disseminated infections	45	\$ 1,379,907	\$ 31,721	\$ 28,807
750-1 Schizophrenia	123	\$ 1,323,070	\$ 7,725	\$ 10,523
593-3 Neonate birthwt 750-999g w/o major procedure	8	\$ 1,236,973	\$ 109,804	\$ 149,579
130-4 Respiratory system diagnosis w ventilator support 96+ hours	22	\$ 1,228,737	\$ 61,431	\$ 55,789
753-1 Bipolar disorders	161	\$ 1,138,848	\$ 4,712	\$ 6,419
751-1 Major depressive disorders & other/unspecified psychoses	132	\$ 1,105,198	\$ 3,749	\$ 5,106

- ▶ Request hospital input on baseline dataset
- ▶ Further analysis of mental health stays
- ▶ Request your guidance on policy priorities

APPENDIX

- ▲ Date of discharge RY 2006 (10/1/05 → 9/30/06)
- ▲ Claims from RY 2005 included if they were part of a stay that ended in RY 2006 (12,830 claims → 10,298 stays)
- ▲ Exclude Rite Care, Medicare crossovers, swing-bed stays
- ▲ Paid claims only; original claim never adjusted or final adjusted claim only
- ▲ 10,298 stays with total payments of \$134,339,107

- ▶ Intended to represent the amount “allowed” by the payer as payment for a given service
- ▶ In general, allowed amount minus patient cost-sharing minus third-party liability minus spend-down equals Medicaid reimbursement
- ▶ In RI MMIS, “allowed amount” is after cost-sharing, TPL and spend-down
- ▶ In this analysis, “payment” equals “adjusted allowed” or MMIS allowed + cost-sharing + TPL + spend-down
- ▶ MMIS allowed = \$133.0 million
- ▶ Adjusted allowed = \$134.3 million

Original Data Extract



Medicaid Fee-for-Service Payments for Inpatient Hospital Stays, October 2005 to September 2006

Hospital	Stays	Claims	Days	Charges	Adj Allowed	Paid	Averages per Stay			Averages per Day	
							Days	Charges	Allowed	Charges	Allowed
Rhode Island General Hospitals											
Rhode Island Hosp	2,938	4,006	21,281	\$ 87,210,883	\$ 33,401,965	\$ 32,956,823	7.2	\$ 29,684	\$ 11,369	\$ 4,098	\$ 1,570
Women & Infants Hosp	1,173	1,524	11,376	\$ 49,466,165	\$ 24,949,359	\$ 24,861,100	9.7	\$ 42,171	\$ 21,270	\$ 4,348	\$ 2,193
St. Joseph Hosp	912	970	11,046	\$ 28,089,959	\$ 17,412,035	\$ 17,378,730	12.1	\$ 30,800	\$ 19,092	\$ 2,543	\$ 1,576
Kent County Mem Hosp	1,190	1,715	8,681	\$ 23,763,263	\$ 10,734,252	\$ 10,664,580	7.3	\$ 19,969	\$ 9,020	\$ 2,737	\$ 1,237
The Memorial Hosp	668	747	4,110	\$ 12,034,067	\$ 9,551,255	\$ 9,546,686	6.2	\$ 18,015	\$ 14,298	\$ 2,928	\$ 2,324
Roger Williams Hosp	903	940	5,296	\$ 11,260,640	\$ 8,060,012	\$ 8,055,812	5.9	\$ 12,470	\$ 8,926	\$ 2,126	\$ 1,522
The Miriam Hosp	779	853	4,312	\$ 16,222,036	\$ 5,342,589	\$ 5,292,407	5.5	\$ 20,824	\$ 6,858	\$ 3,762	\$ 1,239
Landmark Med Ctr	607	626	3,780	\$ 9,309,171	\$ 5,324,970	\$ 5,290,095	6.2	\$ 15,336	\$ 8,773	\$ 2,463	\$ 1,409
Newport Hosp	266	283	1,360	\$ 2,437,650	\$ 1,977,480	\$ 1,963,210	5.1	\$ 9,164	\$ 7,434	\$ 1,792	\$ 1,454
South County Hosp,	154	170	646	\$ 1,510,736	\$ 1,067,104	\$ 1,059,818	4.2	\$ 9,810	\$ 6,929	\$ 2,339	\$ 1,652
The Westerly Hosp	85	85	477	\$ 1,595,513	\$ 907,678	\$ 907,678	5.6	\$ 18,771	\$ 10,679	\$ 3,345	\$ 1,903
Subtotal	9,675	11,919	72,365	\$ 242,900,083	\$ 118,728,700	\$ 117,976,939	7.5	\$ 25,106	\$ 12,272	\$ 3,357	\$ 1,641
Rhode Island Specialty Hospitals											
Bradley Hosp	346	573	10,074	\$ 10,354,615	\$ 8,020,469	\$ 7,708,980	29.1	\$ 29,927	\$ 23,181	\$ 1,028	\$ 796
Butler Hosp	91	121	1,977	\$ 3,451,970	\$ 2,057,634	\$ 1,861,743	21.7	\$ 37,934	\$ 22,611	\$ 1,746	\$ 1,041
Rehabilitation Hosp of F	45	60	656	\$ 1,128,866	\$ 1,001,651	\$ 987,232	14.6	\$ 25,086	\$ 22,259	\$ 1,721	\$ 1,527
Subtotal	482	754	12,707	\$ 14,935,451	\$ 11,079,754	\$ 10,557,955	26.4	\$ 30,986	\$ 22,987	\$ 1,175	\$ 872
Total Rhode Island	10,157	12,673	85,072	\$ 257,835,535	\$ 129,808,455	\$ 128,534,894	8.4	\$ 25,385	\$ 12,780	\$ 3,031	\$ 1,526
Out of State	141	157	1,777	\$ 10,239,861	\$ 4,530,653	\$ 4,499,650	12.6	\$ 72,623	\$ 32,132	\$ 5,762	\$ 2,550
Total	10,298	12,830	86,849	\$ 268,075,396	\$ 134,339,107	\$ 133,034,544	8.4	\$ 26,032	\$ 13,045	\$ 3,087	\$ 1,547

Notes: Data are preliminary and subject to validation. Payments exclude DSH payments.

Dataset Used in Simulation



Dataset Proposed for APR-DRG Simulation											
Hospital	Stays	Claims	Days	Charges	Adj Allowed	Averages per Stay			Averages per Day		
						Days	Charges	Allowed	Charges	Allowed	
Rhode Island General Hospitals											
Rhode Island Hosp	2,756	3,780	17,976	\$ 74,734,172	\$ 28,630,221	6.5	\$ 27,117	\$ 10,388	\$ 4,157	\$ 1,593	
St. Joseph Hosp	861	909	7,916	\$ 20,262,676	\$ 12,617,653	9.2	\$ 23,534	\$ 14,655	\$ 2,560	\$ 1,594	
Women & Infants Hosp	971	1,237	8,345	\$ 33,729,302	\$ 17,487,576	8.6	\$ 34,737	\$ 18,010	\$ 4,042	\$ 2,096	
The Memorial Hosp	650	727	3,994	\$ 11,864,697	\$ 9,426,450	6.1	\$ 18,253	\$ 14,502	\$ 2,971	\$ 2,360	
Kent County Mem Hosp	1,113	1,624	7,639	\$ 21,295,735	\$ 9,650,665	6.9	\$ 19,134	\$ 8,671	\$ 2,788	\$ 1,263	
Roger Williams Hosp	847	878	4,713	\$ 9,764,077	\$ 7,009,512	5.6	\$ 11,528	\$ 8,276	\$ 2,072	\$ 1,487	
Landmark Med Ctr	592	610	3,567	\$ 8,906,456	\$ 5,117,020	6.0	\$ 15,045	\$ 8,644	\$ 2,497	\$ 1,435	
The Miriam Hosp	750	822	3,849	\$ 14,254,578	\$ 4,709,214	5.1	\$ 19,006	\$ 6,279	\$ 3,703	\$ 1,223	
Newport Hosp	258	274	1,248	\$ 2,364,217	\$ 1,918,476	4.8	\$ 9,164	\$ 7,436	\$ 1,894	\$ 1,537	
South County Hosp,	153	169	645	\$ 1,510,245	\$ 1,066,751	4.2	\$ 9,871	\$ 6,972	\$ 2,341	\$ 1,654	
The Westerly Hosp	84	84	461	\$ 1,497,083	\$ 851,406	5.5	\$ 17,822	\$ 10,136	\$ 3,247	\$ 1,847	
Subtotal	9,035	11,114	60,353	\$ 200,183,241	\$ 98,484,943	6.7	\$ 22,156	\$ 10,900	\$ 3,317	\$ 1,632	
Rhode Island Specialty Hospitals											
Bradley Hosp	83	102	797	\$ 1,137,894	\$ 872,495	9.6	\$ 13,710	\$ 10,512	\$ 1,428	\$ 1,095	
Butler Hosp	52	58	587	\$ 951,110	\$ 564,087	11.3	\$ 18,291	\$ 10,848	\$ 1,620	\$ 961	
Rehabilitation Hosp of R	43	58	599	\$ 1,039,494	\$ 917,552	13.9	\$ 24,174	\$ 21,338	\$ 1,735	\$ 1,532	
Subtotal	178	218	1,983	\$ 3,128,498	\$ 2,354,134	11.1	\$ 17,576	\$ 13,225	\$ 1,578	\$ 1,187	
Out of State	128	141	1,493	\$ 9,330,386	\$ 4,159,320	11.7	\$ 72,894	\$ 32,495	\$ 6,249	\$ 2,786	
Total	9,341	11,473	63,829	\$ 212,642,125	\$ 104,998,397	6.8	\$ 22,764	\$ 11,241	\$ 3,331	\$ 1,645	
Notes: Data are preliminary and subject to validation. Payments exclude DSH payments.											

Adjustment for Settlement



- ▲ Baseline (current) payment is adjusted for expected impact of year-end settlement
- ▲ Adjustment % reflects latest available data

Settlement Adjustments Used in Simulation						
Hospital	FYE	Medicaid Payments on the Claim	Medicaid Liability after Settlement	Owing to (from) Medicaid	Settlement Adjustment	
Rhode Island	2006	\$ 32,090,853	\$ 30,262,747	\$ 1,828,106	-5.7%	
St. Joseph	2006	\$ 17,255,490	\$ 15,275,451	\$ 1,980,039	-11.5%	
Memorial	2006	\$ 9,831,056	\$ 10,128,297	\$ (297,241)	3.0%	
Kent	2002	\$ 7,148,192	\$ 6,321,283	\$ 826,909	-11.6%	
Roger Williams	2004	\$ 6,593,906	\$ 5,970,194	\$ 623,712	-9.5%	
Bradley	2006	\$ 5,853,856	\$ 5,480,829	\$ 373,027	-6.4%	
Miriam	2006	\$ 5,399,449	\$ 5,625,372	\$ (225,923)	4.2%	
Landmark	2004	\$ 3,668,649	\$ 3,580,461	\$ 88,188	-2.4%	
Women & Infants	2006	\$ 2,752,130	\$ 1,745,849	\$ 1,006,281	-36.6%	
Butler	2004	\$ 2,700,507	\$ 2,078,058	\$ 622,449	-23.0%	
Newport	2006	\$ 2,117,307	\$ 2,191,517	\$ (74,210)	3.5%	
Rehabilitation	2005	\$ 1,481,144	\$ 1,731,279	\$ (250,135)	16.9%	
South County	2004	\$ 1,047,829	\$ 1,076,770	\$ (28,941)	2.8%	
Westerly	2005	\$ 561,326	\$ 606,827	\$ (45,501)	8.1%	

Note: Payments to Women & Infants for neonatal care is not subject to year-end settlement

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