

Trends in Inpatient Hospital Prices, 2008 to 2010

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Objectives: Our goal was to present detailed descriptive data on transaction prices paid by commercial insurers and their enrollees for inpatient hospital care.

Data and Methods: To estimate transaction prices for inpatient hospital stays (hospital cost only), we used the MarketScan data set of commercial claims and administrative records for 45 to 50 million covered enrollees under age 65 years with commercial group health insurance. Prices are defined as average allowed charges, including insurer-paid reimbursements plus patient cost-sharing obligations, and are shown for 350 specific admission categories and for many states and localities. Intensity adjustments to account for increased complexity or resource use in hospital stays were estimated from changes in the numbers of procedures per admission, the complexity of admission codes, and patients' risk scores.

Results: Unadjusted inpatient hospital prices per admission grew by 8.2% per year from 2008 to 2010 for the commercially insured population (under age 65 years) in the MarketScan data set. We estimate that approximately 1.3 to 1.9 percentage points of the growth in prices can be attributed to increased intensity per admission. Thus, we estimate that intensity-adjusted price increases ranged from 6.2% to 6.8% annually in the 2008-2010 period. Price levels and trends varied considerably across admission types, states, and localities.

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For author information and disclosures, see end of text.

Despite the keen interest in US healthcare costs, there is surprisingly little detailed public information available on one of its key components: transaction prices paid by commercial insurers for inpatient hospital care. To be sure, tracking hospital prices can be difficult in the US healthcare system. Private insurers customarily negotiate prices with individual hospitals and health systems. Public data sources on commercial prices may lack sufficient detail for benchmarking or specific research questions. The academic literature on commercial hospital prices tends to be qualitative in nature or related to hospital group consolidation or mergers, with little in the way of basic descriptive information on the prices themselves.¹⁻⁹

Measures of overall US health spending, such as total national health expenditure accounts, reflect more than prices, and are thus too broad for use in price research. Spending measures are affected by prices, but they are also affected by changes in the volume of services, the numbers of persons covered, and the types of services patients receive. In a recession, the growth of health spending may decelerate because fewer people are insured and thus may not have ready access to healthcare services, regardless of trends in the prices of services or the cost of insurance coverage.

Likewise, health insurance premiums reflect more than just prices of services covered. Premium data reflect the volume and composition of health services received by policy holders, which may be affected by the demographics (such as age, sex, or health status) of the insured pool and their insurance benefits.

Several states require hospitals to report their list prices, or charges. However, hospital charges are typically much higher than the prices insurers and consumers actually pay.¹⁰ For example, California reports aggregated hospital charges and actual reimbursements by type of payer. In 2011, total charges assessed by the 321 general acute care hospitals reporting for private commercial managed care patients were \$71.3 billion. However, actual reimbursements from insurance plans and patients based on negotiated reimbursement levels were much lower: \$27.1 billion.¹¹

Finally, the official prices indexes for consumer and producer prices may not be sufficiently targeted or detailed for research on inpatient hospital prices. For example, the Consumer Price Index for medical care (CPI-M) is designed to measure the inflation rate for consumer out-of-pocket health costs. Therefore, the CPI-M contains prices for healthcare services that are *not* covered by insurance. The CPI-M contains some elements for

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insured benefit costs, since consumers pay a share of their premiums and have out-of-pocket costs for coinsurance and deductibles. However, many of the components of the CPI-M are prices for non-covered goods and services, such as over-the-counter medications and supplies.

The Producer Price Index (PPI) for hospital and surgical services tracks hospital transaction prices from 3 categories of payers (Medicare, Medicaid, and other payers). However, the PPI includes outpatient hospital prices, and its “other payers” component includes prices for uninsured patients not using insurer-negotiated rates (or not able to pay at all). The PPI also does not provide detail by region, and the available detail by type of diagnosis does not include a breakdown by payer categories.

To get a more precise picture of transaction prices for hospital services, we used a large source of claims data for the commercially insured population under age 65 years to develop estimates of price levels and growth rates in detail, by admission type, state, and locality. Our goals were to track price levels and changes in the most current period, and to provide detailed benchmark information for use by managed care plans and hospitals, and to facilitate further study on reasons for changes and variations in hospital prices.

DATA AND METHODS

To estimate inpatient hospital prices and changes in the intensity of inpatient hospital services, we used the MarketScan data set of commercial claims records for 2008-2010. Our price estimates were based on average allowed charges (adjudicated reimbursement amounts from insurer claims data) for acute hospitalizations, including payments made by insurers and patient obligations for copayments and deductibles. Intensity estimates were derived from detailed procedure and diagnosis codes contained in each hospital record.

Data Characteristics. The MarketScan data set includes 49 million enrollees under age 65 years with commercial group health insurance in 2008 and 2009, and about 45 million in 2010 (Table 1). The data set contains 2.2 million enrollees with at least 1 hospitalization in 2008 and 1.9 million such enrollees in 2010 (Table 2). The average age of hospitalized patients (including infants) in the data set was approximately 36 years, and the average length of hospital stay was about 4 days per admission throughout the 2008-2010 period.

Because the MarketScan data set is so large, we are able to report prices by diagnosis-related group (DRG) for more than 350 types of admissions with a large number of cases (800 or

Take-Away Points

- Prices for inpatient hospital care in the United States rose sharply in the 2008-2010 period.
- Even after adjustment for growth in intensity—more numerous or complex procedures performed per admission—prices rose rapidly for most types of hospitalizations.
- We observed a wide variation in price levels and growth rates across states and localities; the detailed benchmarks we present can help facilitate additional research on why prices vary.

more cases per year). MarketScan used DRG version 28 as the case grouper for all years. Thus, each admission during the 3-year period was grouped into DRG categories using the same system. This allows our analysis to avoid potential issues related to the annual or periodic redefinition of DRGs.

The 2008 MarketScan data are from 147 large employers and 20 insurers (mostly regional or single-state plans). The 2010 data are from 142 employers and 17 health plans.¹² None of the employers or health insurers included in the MarketScan data set are identified. To maintain the confidentiality of the employers and health insurance plans that contribute data, MarketScan restricts the publication of information to states or localities where the data reflect a sufficient number of respondents. Despite this restriction, we are able to provide data from more than half of the states and about 100 localities.

Estimating Changes in Intensity. Changes in the nature of a service or product can complicate efforts to measure its underlying price over time. For example, if a particular type of surgery or hospital treatment is affected by changes in technology or patterns of care, the average allowed charges could reflect not only the price but also additional (or fewer) services provided or changes in the intensity of services for a given hospitalization or hospital day.

To assess possible changes in intensity that could account for some of the observed price increases, we examined average lengths of stay and the number of procedure codes associated with hospital stays. We also examined changes in the average DRG weights (the payment multiplier associated with each DRG in Medicare) as a way of assessing whether the types of hospitalizations in a particular state or region were becoming more complex. Finally, we assessed patients' risk scores, using a simplified version of the formula used by Medicare for risk-adjusted reimbursement to health plans.

We adjusted for intensity change in 2 alternative ways. First, for price measures spanning all DRGs—nationally, statewide, or within a Metropolitan Statistical Area—we adjusted for changes in the distribution of DRGs using the Medicare DRG weight or payment amount. Under the Medicare system, DRGs are assigned weights meant to compensate hospitals for their relative complexity or likely resource

■ **Table 1.** Characteristics of Enrollees in the MarketScan Data Set, 2008 and 2010

	Number of Enrollees					
	Unweighted			Weighted to National Totals		
	2008	2009	2010	2008	2009	2010
Age 0-17 y	13,122,214	12,923,531	11,818,322	40,524,468	41,075,124	41,056,909
Age 18-34 y	12,087,922	11,912,099	10,933,032	40,223,974	39,350,088	39,224,957
Age 35-44 y	8,225,345	8,134,595	7,467,118	28,146,743	27,605,337	27,699,217
Age 45-54 y	8,869,046	9,026,801	8,324,590	30,267,220	30,010,026	30,022,484
Age 55-64 y	6,948,333	7,228,752	6,696,690	23,855,628	24,161,654	24,198,663
Male	23,958,854	23,877,567	22,038,281	80,611,966	80,195,461	80,195,461
Female	25,294,006	25,348,211	23,201,471	82,406,066	82,006,768	82,006,768
Northeast	7,606,188	6,636,771	6,764,122	30,894,677	31,368,859	31,368,640
North Central	11,685,462	12,069,498	11,083,371	38,210,875	37,463,511	37,463,552
South	19,220,868	19,283,378	17,816,106	56,957,169	57,204,727	57,204,664
West	8,666,498	9,086,211	9,336,546	36,941,904	36,164,894	36,164,898
Unknown	2,073,844	2,149,920	239,607	13,408	239	475
Total	49,252,860	49,225,778	45,239,752	163,018,032	162,202,229	162,202,229
	Percent					
	Unweighted			Weighted to National Totals		
	2008	2009	2010	2008	2009	2010
Age 0-17 y	26.6%	26.3%	26.1%	24.9%	25.3%	25.3%
Age 18-34 y	24.5%	24.2%	24.2%	24.7%	24.3%	24.2%
Age 35-44 y	16.7%	16.5%	16.5%	17.3%	17.0%	17.1%
Age 45-54 y	18.0%	18.3%	18.4%	18.6%	18.5%	18.5%
Age 55-64 y	14.1%	14.7%	14.8%	14.6%	14.9%	14.9%
Male	48.6%	48.5%	48.7%	49.4%	49.4%	49.4%
Female	51.4%	51.5%	51.3%	50.6%	50.6%	50.6%
Northeast	15.4%	13.5%	15.0%	19.0%	19.3%	19.3%
North Central	23.7%	24.5%	24.5%	23.4%	23.1%	23.1%
South	39.0%	39.2%	39.4%	34.9%	35.3%	35.3%
West	17.6%	18.5%	20.6%	22.7%	22.3%	22.3%
Unknown	4.2%	4.4%	0.5%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Data from MarketScan for the commercially insured population under age 65 years; calculations by the authors.

use. For example, a transplant DRG will have a higher weight than the DRG for an uncomplicated birth, since transplant cases have longer lengths of stay and require more intensive care. We further adjusted for the number of procedures coded within each DRG level. Thus, even for a particular DRG, such as normal delivery, where adjusting for the mix of DRGs is not relevant, we adjusted for the fact that the number of procedures performed may be increasing.

We also examined the risk scores associated with patients' hospitalizations. For this method of adjustment, we used a slightly simplified version of the Medicare risk score computa-

tion used for reimbursement. The Medicare risk scores assign values to categories of major illnesses (known as hierarchical condition categories, or HCCs) and also for age and sex groupings. The scores are used for reimbursement of health plans and are based on diagnosis codes gathered from all claims (including physician and outpatient visits), not just from hospital stays. Moreover, they are based on diagnoses attached to claims, not on healthcare procedures or services provided. Nevertheless, they provide a coherent and easily duplicated measure of patient risk that can be used as a proxy for the intensity of care that hospitalized patients may receive. For

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■ **Table 2.** Characteristics of Hospitalizations in the MarketScan Data

	2008	2009	2010
	Unweighted		
Enrollees with an inpatient hospital admission	2,173,901	2,190,625	1,923,183
Average age	35.9	36.1	35.8
Inpatient admissions	2,692,837	2,712,035	2,396,748
Admissions per 1000 enrollees	54.7	55.1	53.0
Average days per admission (length of stay)	4.03	4.00	4.01
	Weighted to National Totals		
Enrollees with an inpatient hospital admission	7,089,514	7,120,964	6,844,509
Average age	36.6	36.3	36.1
Inpatient admissions	8,774,781	8,792,955	8,465,727
Admissions per 1000 enrollees	53.8	54.2	52.2
Average days per admission (length of stay)	4.04	4.00	4.00

Source: Data from MarketScan for the commercially insured population under age 65 years; calculations by the authors.

Note: Weights to national totals provided by MarketScan, based on the Medical Panel Expenditure Survey (MEPS) from the Agency for Healthcare Quality and Research.

example, a severely ill patient with multiple chronic health conditions and diagnoses spanning several HCC codes would have a high risk score, and would probably also be a likely candidate for more intense services in the hospital for any given DRG than a patient with a lower risk score.

Sample Weighting. For our price and intensity estimates, we used the sample weights provided by MarketScan to adjust the data set toward estimated national geographic and demographic totals for commercial insurance enrollment. The sample weights are based on information from the Medical Expenditure Panel Survey (MEPS), which is conducted by the Agency for Healthcare Research and Quality and is regarded as a source for overall benchmarks in healthcare costs and utilization.¹³ Compared with the post-weighting distribution of enrollment, the unweighted MarketScan data set slightly overrepresents the population in the Southern and Central states, and underrepresents the population in the Northeast and West. Although we provide some price results without the use of these sample weights, we believe that the relatively small correction for geographic representation achieved via the weighting process produces more accurate estimates of hospital price growth and levels. For example, we observe that hospital price levels are lower in the South and North Central states (which are slightly overrepresented in MarketScan) than in the Western and Northeastern states. However, prices are growing more rapidly in the South and Central states than in the West and Northeast. Thus, using the sample weights raises our estimates of the nationwide hospital price levels but lowers estimated growth in prices during this period.

RESULTS

We estimate that unadjusted hospital prices per admission rose from \$13,016 in 2008 to \$15,236 in 2010, an average annual growth rate of 8.2% (Table 3). Using the growth of both DRG weights and the number of procedures yields an intensity adjustment estimate of 1.3% annually during this period. Alternatively, estimating intensity as the growth of patient risk scores during the period implies an intensity measure of 1.9% on an annual basis. Thus, we estimate that intensity-adjusted prices increased by 6.2% to 6.8% per year during the 2008-2010 period, based on factoring out 1.3% to 1.9% of the unadjusted 8.2% increase. For 2009-2010, we estimate that intensity-adjusted prices rose by 4.9% to 5.5%, based on an unadjusted price increase of 6.5% and estimated intensity adjustments of 0.9% (risk score method) to 1.6% (DRG weights and number of procedures method).

These estimates used MarketScan sample weights to correct for geographic differences between the MarketScan sample and national totals. By contrast, the average price per admission on the unweighted MarketScan data was \$12,747 in 2008 and \$15,111 in 2010, a growth rate over the 2-year period of 8.9%. Thus, the application of the sample weights slightly raises the average national price level and lowers its rate of growth compared with using unweighted data. Our analysis indicates that the main impact of using the sample weights is to correct for differences in the geographic distribution of enrollment between the unweighted MarketScan data set and national totals. This is because there are substantial differences in the levels and rates of growth of hospital prices

■ **Table 3.** Growth in Inpatient Hospital Prices and Intensity Estimates

	2008-2009	2009-2010	2008-2010 Average Annual Growth
Unadjusted price per admission (weighted to national totals)	9.9%	6.5%	8.2%
Intensity growth estimates			
Procedures/DRG weights method	1.0%	1.6%	1.3%
Risk score method	2.9%	0.9%	1.9%
Intensity-adjusted price growth			
Procedures/DRG weights method	8.8%	4.9%	6.8%
Risk score method	6.8%	5.5%	6.2%
Memorandum			
Unadjusted price per admission (unweighted)	10.8%	7.0%	8.9%
DRG indicates diagnosis-related group. Source: Data from MarketScan for the commercially insured population under age 65 years; calculations by the authors.			

■ **Table 4.** Average Allowed Charges per Admission and Intensity Adjusted Price Growth, 20 Highest-Volume Admission Categories

	DRG v28	2008	2010	Average Annual Growth, 2008-2010		
				Unadjusted Growth Rate	Intensity Growth (Number of Procedures Method)	Estimated Intensity-Adjusted Price Growth
Spinal fusion except cervical without MCC	460	\$33,240	\$44,126	15.2%	0.3%	14.9%
Chest pain	313	\$4790	\$5673	8.8%	-4.3%	13.7%
Bronchitis & asthma without CC/MCC	203	\$4976	\$6050	10.3%	0.3%	9.9%
Simple pneumonia & pleurisy with CC	194	\$8457	\$10,154	9.6%	0.0%	9.6%
Circulatory disorders except AMI, with cardiac catheter without MCC	287	\$11,029	\$13,143	9.2%	0.0%	9.2%
Uterine & adnexa procedure for non-malignancy without CC/MCC	743	\$7670	\$9251	9.8%	1.0%	8.7%
Esophagitis, gastrointestinal & misc. digestive disorders without MCC	392	\$6206	\$7423	9.4%	0.8%	8.5%
Appendectomy without complicated principal diagnosis without CC/MCC	343	\$7877	\$9295	8.6%	1.4%	7.1%
Cesarean section with CC/MCC	765	\$10,430	\$11,959	7.1%	0.0%	7.0%
Nutritional & misc. metabolic disorders without MCC	641	\$6127	\$7330	9.4%	2.4%	6.8%
Cesarean section without CC/MCC	766	\$7206	\$8344	7.6%	0.9%	6.6%
Cellulitis without MCC	603	\$6423	\$7698	9.5%	3.2%	6.0%
Vaginal delivery with complicating diagnoses	774	\$5987	\$7052	8.5%	2.5%	5.8%
Major joint replacement or reattachment of lower extremity without MCC	470	\$21,680	\$24,742	6.8%	1.1%	5.7%
Full term neonate with major problems	793	\$7635	\$8855	7.7%	1.9%	5.7%
Vaginal delivery without complicating diagnoses	775	\$4806	\$5543	7.4%	1.9%	5.4%
Neonate with other significant problems	794	\$2805	\$3242	7.5%	2.8%	4.6%
Normal newborn	795	\$1412	\$1632	7.5%	4.0%	3.4%
Psychoses	885	\$6872	\$7300	3.1%	-0.2%	3.3%
Alcohol/drug abuse or dependence without rehab therapy without MCC	897	\$5085	\$5710	6.0%	2.6%	3.3%
AMI indicates acute myocardial infarction; CC, complications and comorbidities; DRGv28, diagnosis-related group, version 28; MCC, major complications and comorbidities. Source: Data from MarketScan for the commercially insured population under age 65 years; calculations by the authors.						

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Table 5. Average Allowed Charges per Admission and Intensity Adjusted Price Growth, by 20 Largest Metropolitan Statistical Areas (MSAs), 2008 and 2010

MSA	2008	2010	2008-2010 Average Annual Growth		
			Unadjusted	Intensity-Adjusted (DRG Weights and Procedures Method)	Intensity Adjusted (Risk Scores Method)
Non-MSA (rural areas)	\$12,541	\$14,811	8.7%	6.8%	5.8%
35644-New York-White Plains-Wayne, NY-NJ	\$11,902	\$14,588	10.7%	10.6%	15.2%
35004-Nassau-Suffolk, NY	\$12,811	\$15,775	11.0%	9.8%	12.0%
23104-Fort Worth-Arlington, TX	\$13,539	\$16,473	10.3%	10.2%	9.1%
41700-San Antonio-New Braunfels, TX	\$10,410	\$12,788	10.8%	8.5%	8.3%
47644-Warren-Troy-Farmington Hills, MI	\$10,606	\$12,243	7.4%	11.7%	7.5%
19124-Dallas-Plano-Irving, TX	\$12,882	\$15,179	8.5%	6.3%	6.8%
31084-Los Angeles-Long Beach-Glendale, CA	\$16,215	\$19,421	9.4%	3.3%	6.5%
40140-Riverside-San Bernardino-Ontario, CA	\$15,590	\$17,883	7.1%	5.0%	5.0%
42644-Seattle-Bellevue-Everett, WA	\$15,317	\$17,317	6.3%	7.3%	4.8%
19740-Denver-Aurora-Broomfield, CO	\$14,379	\$16,181	6.1%	12.0%	4.3%
36084-Oakland-Fremont-Hayward, CA	\$25,792	\$28,930	5.9%	1.5%	3.7%
42044-Santa Ana-Anaheim-Irvine, CA	\$15,799	\$18,329	7.7%	3.8%	3.3%
41180-St. Louis, MO-IL	\$9,928	\$10,687	3.8%	5.5%	3.1%
29820-Las Vegas-Paradise, NV	\$13,284	\$14,516	4.5%	5.8%	3.0%
26420-Houston-Sugar Land-Baytown, TX	\$14,063	\$15,170	3.9%	0.8%	2.8%
12060-Atlanta-Sandy Springs-Marietta, GA	\$12,065	\$13,562	6.0%	3.6%	2.8%
41740-San Diego-Carlsbad-San Marcos, CA	\$19,420	\$22,279	7.1%	1.5%	1.6%
37964-Philadelphia, PA	\$12,402	\$14,355	7.6%	4.7%	1.1%
10740-Albuquerque, NM	\$10,387	\$11,528	5.3%	-5.0%	0.1%

Source: Data from MarketScan for the commercially insured population under age 65 years; calculations by the authors.
Note: Data ranked by Intensity Adjusted Price Growth (risk scores method).

by region. However, other differences between the unweighted MarketScan data and national totals produced only negligible changes in the price estimates. For example, the average age of the MarketScan data set's population is slightly younger than the national average age of people with private commercial insurance coverage in the MEPS data set. However, these slight age differences did not seem to noticeably affect the price estimates.

Table 4 lists prices for the 20 highest volume admission categories in the MarketScan data. Since the mix of DRGs is not relevant for within-DRG price changes, we provided an intensity adjustment for these data based on changes in the numbers of procedures only. The highest volume DRG was for vaginal delivery without complicating diagnoses (version 28 DRG 775). Prices per admission in this category rose from \$4806 in 2008 to \$5543 in 2010, an unadjusted price increase of 7.4% per year. The number of procedures per ad-

mission grew by 1.9% per year during this period. Therefore, our estimate of the intensity-adjusted price increase of admissions for uncomplicated vaginal delivery is 5.4% per year in 2008-2010.

Among the highest volume DRGs, the admission category with the most rapid intensity-adjusted price increase during the 2008-2010 period was spinal fusion (except cervical) without major complications or comorbidities (version 28 DRG 460). The price for this type of admission rose from \$33,240 in 2008 to \$44,126 in 2010, an unadjusted annual price increase of 15.2%. After adjusting for intensity growth via the number of procedures per admission, we estimate that price increases averaged 14.9% for this category of admissions in 2008-2010.

Using the US Census definitions of Metropolitan Statistical Areas, we were able to show the estimates of price changes for rural areas and many of the largest metropolitan areas

(Table 5). Average prices per admission in rural areas rose from \$12,541 in 2008 to \$14,811 in 2010, an unadjusted price increase of 8.7%. After adjusting for intensity, price increases in these areas ranged from 5.8% per year (using risk scores) to 6.8% per year (using DRG weights and number of procedures). Thus, price increases in rural areas were fairly close to the national average.

However, some metropolitan areas showed much higher- or lower-than-average price increases, even within the same state. For example, we estimate that intensity-adjusted prices in the Houston, Texas, metro area grew by only 0.8% to 2.8% annually, while intensity-adjusted prices grew by 6.3% to 6.8% in the Dallas, Texas, area and 8.3% to 8.5% in the San Antonio, Texas, metropolitan area.

The Appendix Tables 1-8 contain detailed price estimates by DRG, state, and Metropolitan Statistical Area, including the background information used to compute intensity adjustments.

DISCUSSION

We estimate that unadjusted prices for inpatient hospital care rose by 8.2% per year during the 2008-2010 period in a large sample of 45 to 49 million enrollees under age 65 years with commercial health insurance. Based on changes in patients' risk scores and changes in the mix of admissions and the numbers of procedures performed, we estimate that approximately 1.3 to 1.9 percentage points of the unadjusted 8.2% growth in prices could be attributed to increased intensity per admission. Thus, we estimate that intensity-adjusted price increases ranged from 6.2% to 6.8% annually in the 2008-2010 period.

The MarketScan data are broadly consistent with 2 other emerging sources of data on inpatient hospital prices: the Health Care Cost Institute (HCCI), which reports aggregated hospital prices based on data collected from 3 large health insurance plans,¹⁴ and the states of California and Oregon, which make available some basic information on transaction prices for commercial payers.¹⁵ Using the MarketScan data, we estimate that unadjusted hospital prices grew by 6.5% in 2009-2010; in the HCCI data set, unadjusted inpatient hospital prices grew by about 7.4%. However, HCCI's estimated intensity adjustment (3.3%) in 2010 was larger than our adjustment (0.9% to 1.6%) in that year. Thus, HCCI's estimate of intensity-adjusted hospital prices (4.0%) is somewhat lower than our estimate of 4.9% to 5.5%. Our estimate of the average price for inpatient hospitalizations in California in 2009 (\$20,592) is roughly equivalent to the average from California's Office of State Health Planning and Development (\$20,800), and our estimate of the growth of prices in Oregon

in 2009 (9.6%) is consistent with the double-digit growth rates implied by data provided by Office for Oregon Health Policy and Research in the 2005-2009 period.

There are several important limitations with our data and approach. First, before weighting, the MarketScan data set represents about 30% of the non-elderly US population with private health coverage. However, despite the sample's large size and the sample weighting used, there is no guarantee that the MarketScan data are representative of the entire commercially insured US population. The sample weights help adjust for demographic and regional differences between the MarketScan data and the national totals, but there may be other factors unique to the MarketScan data that are not corrected by weighting. Therefore, we would not assert that even the weighted data are necessarily representative. However, we do believe that the weighting provides a helpful improvement in the accuracy of our estimates.

A second question is whether the intensity adjustments are sufficient or overdone. By combining DRG weights and procedures, we may be overestimating intensity growth, since the extra procedures may have been associated with the move toward more complex DRG codes. However, using risk scores as a proxy for intensity produces results similar to using the DRG severity weights in combination with procedure counts.

There may be other ways of thinking about intensity that we cannot measure. For example, if more patients stayed in individual hospital rooms, as opposed to double rooms, would that qualify as an intensity gain? It would not show up under the number of procedures or in the severity of DRG codes, but one could argue that the additional cost of single rooms represents a service enhancement rather than a price increase. Likewise, a higher nurse-to-bed ratio might enhance safety and service, but unless the additional staffing were reflected in DRG severity, procedures performed, or patients' risk scores, our method would not capture the additional services.

Finally, prices for individual DRGs, states, and localities may be affected by specific clinical, social, regulatory, or economic factors that could explain some price levels and changes. Likewise, it is possible that temporal changes in the composition of MarketScan enrollment itself could affect price trends in some localities. We did not publish information for states or localities where the MarketScan enrollment changed substantially between 2008 and 2010. However, for the states and localities we do show, we did not undertake a systematic study of the underlying enrollment composition. Therefore, some local price changes could result from an enrollment effect not captured in our study of risk scores, procedures, and DRG distributions.

On balance, we believe our results support the general proposition that US hospital prices rose rapidly in the 2008-

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2010 period. A key advantage of the MarketScan data is that price changes and levels can be disaggregated by admission type and by many states and localities. We believe the MarketScan data set is large enough to provide helpful benchmarks across these dimensions. We hope that the specific price information we present in the appendices will help facilitate future research on why prices are increasing and why price levels and price growth rates may differ across admission types and geographic locations.

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	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Vaginal delivery without complicating diagnoses	775	252,651	228,807	2.1	2.1	4.8	5.0
Normal newborn	795	153,273	142,627	2.0	2.0	3.5	3.8
Cesarean section without CC/MCC	766	103,977	92,442	3.0	3.0	6.5	6.6
Psychoses	885	84,879	84,425	7.1	6.9	4.6	4.5
Major joint replacement or reattachment of lower extremity without MCC	470	67,762	73,475	3.1	2.9	7.6	7.8
Uterine and adnexa procedure for non-malignancy without CC/MCC	743	74,230	58,623	1.9	1.8	6.1	6.2
Cesarean section with CC/MCC	765	63,007	58,616	4.5	4.4	8.0	8.0
Esophagitis, gastroenterological and miscellaneous digestive disorders without MCC	392	63,384	57,337	2.7	2.7	7.2	7.3
Neonate with other significant problems	794	51,139	47,656	2.4	2.3	4.9	5.1
Alcohol/drug abuse or dependence without rehabilitation therapy without MCC	897	39,370	36,618	7.6	7.3	2.9	3.0
Vaginal delivery with complicating diagnoses	774	36,253	33,759	2.7	2.6	5.6	5.9
Chest pain	313	39,668	25,299	1.5	1.5	7.9	7.2
Cellulitis without MCC	603	26,593	26,712	3.3	3.2	6.1	6.5
Circulatory disorders except acute myocardial infarction, with cardiovascular catheterization without MCC	287	26,743	22,611	2.3	2.3	12.0	12.0
Full term neonate with major problems	793	24,513	24,188	3.9	3.8	6.3	6.6
Spinal fusion except cervical without MCC	460	27,242	20,794	2.8	3.0	12.6	12.7
Appendectomy without complicated principal diagnosis without CC/MCC	343	22,673	19,336	1.5	1.5	7.3	7.5
Nutritional and miscellaneous metabolic disorders without MCC	641	23,510	17,527	2.6	2.7	5.6	5.9
Simple pneumonia and pleurisy with CC	194	19,642	17,211	3.6	3.5	7.2	7.2
Bronchitis and asthma without CC/MCC	203	20,882	16,857	2.3	2.2	4.4	4.4
O.R. procedure for obesity without CC/MCC	621	17,824	15,501	1.7	1.7	5.3	5.7
Other antepartum diagnoses with medical complications	781	18,645	15,392	3.2	3.2	5.4	5.6
Cardiac arrhythmia and conduction disorders without CC/MCC	310	17,223	14,742	1.9	1.8	7.4	6.9
Major small and large bowel procedure with CC	330	16,365	15,867	6.8	6.4	9.8	9.9
Percutaneous cardiovascular procedure with drug-eluting stent without MCC	247	18,086	15,012	1.9	2.1	12.5	13.1
Rehabilitation with CC/MCC	945	15,102	15,717	15.8	15.0	7.2	7.1

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Simple pneumonia and pleurisy without CC/MCC	195	17,151	13,085	2.7	2.6	5.4	5.5
Uterine and adnexa procedure for non-malignancy with CC/MCC	742	15,858	12,912	3.1	3.0	8.3	8.5
Back and neck procedure excluding spinal fusion without CC/MCC	491	15,930	12,204	1.7	1.6	6.2	6.3
Kidney and urinary tract infections without MCC	690	15,369	13,751	2.9	2.8	6.6	6.7
Bronchitis and asthma with CC/MCC	202	14,653	13,110	3.2	3.1	6.3	6.3
Seizures without MCC	101	14,619	12,967	2.6	2.5	6.6	6.6
Percutaneous cardiovascular procedure with non-drug-eluting stent without MCC	249	18,323	9,669	2.1	2.2	12.2	12.6
Laparoscopic cholecystectomy without common duct exploration with CC	418	12,830	12,336	3.1	3.0	10.7	10.8
Septicemia or severe sepsis without mechanical ventilation 96 or more hours with MCC	871	11,838	12,669	7.2	6.9	10.6	10.5
Syncope and collapse	312	12,683	10,526	2.2	2.1	8.9	8.3
Cervical spinal fusion without CC/MCC	473	8,728	13,192	1.4	1.4	10.2	11.5
Extreme immaturity or respiratory distress syndrome, neonate	790	13,015	11,571	25.0	26.3	10.1	10.4
Prematurity without major problems	792	12,674	11,454	5.7	5.8	5.3	5.6
Laparoscopic cholecystectomy without common duct exploration without CC/MCC	419	11,510	10,227	2.2	2.1	8.2	8.5
Chemotherapy without acute leukemia as secondary diagnosis with CC	847	10,120	9,985	3.5	3.6	5.6	6.0
Lower extremity and humerus procedure except hip, foot, femur without CC/MCC	494	10,495	9,259	2.2	2.1	7.2	7.5
Red blood cell disorders without MCC	812	10,381	9,657	3.1	3.2	7.0	7.5
Depressive neuroses	881	10,228	9,830	4.8	4.8	4.0	4.1
Medical back problems without MCC	552	10,473	8,159	2.9	2.9	7.0	7.2
Major male pelvic procedure without CC/MCC	708	9,345	8,026	1.7	1.6	6.8	7.3
Poisoning and toxic effects of drugs without MCC	918	10,081	8,797	1.9	1.9	5.5	5.7
Percutaneous cardiovascular procedure without coronary artery stent without MCC	251	9,883	7,400	2.1	2.2	9.3	10.1
Urinary stones without Extracorporeal Shock Wave Lithotripsy without MCC	694	9,576	8,209	1.7	1.7	6.7	7.1
Headaches without MCC	103	9,608	8,525	2.9	2.9	7.6	7.6
Esophagitis, gastroenterological and miscellaneous digestive disorders with MCC	391	8,354	8,249	4.3	4.3	9.1	9.3
Otitis media and upper respiratory illnesses without MCC	153	9,278	7,000	2.1	2.0	5.1	5.2
Diabetes without CC/MCC	639	9,729	7,814	2.3	2.2	5.5	5.6

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Disorders of pancreas except malignancy without CC/MCC	440	8,346	8,076	3.2	3.0	7.2	7.3
Major small and large bowel procedure with MCC	329	8,013	7,421	12.2	11.9	12.8	12.8
Pulmonary embolism without MCC	176	7,290	7,541	4.1	3.8	8.8	8.4
Gastrointestinal hemorrhage with CC	378	7,309	7,729	3.2	3.1	9.7	9.9
Simple pneumonia and pleurisy with MCC	193	7,030	6,890	5.9	5.6	9.4	9.4
Transient ischemia	069	7,924	6,666	2.1	2.0	9.9	9.5
Major small and large bowel procedure without CC/MCC	331	7,103	7,197	4.5	4.3	7.2	7.3
Other digestive system diagnoses with CC	394	7,526	6,758	3.5	3.6	7.9	8.1
Gastrointestinal obstruction without CC/MCC	390	7,266	7,004	2.7	2.6	6.8	6.9
Chronic obstructive pulmonary disease with MCC	190	7,008	6,655	5.1	4.8	8.4	8.2
Disorders of pancreas except malignancy with CC	439	6,935	7,193	4.7	4.6	8.9	8.8
Thyroid, parathyroid and thyroglossal procedure without CC/MCC	627	7,188	5,669	1.3	1.3	5.3	5.4
Diabetes with CC	638	6,673	7,481	3.4	3.1	7.3	7.3
Intracranial hemorrhage or cerebral infarction with CC	065	6,864	6,586	4.6	4.3	11.1	10.6
Prematurity with major problems	791	7,226	6,818	12.9	12.9	8.2	8.4
Vaginal delivery with sterilization and/or dilation and curettage	767	7,684	6,126	2.4	2.4	8.1	8.4
Cardiac arrhythmia and conduction disorders with CC	309	6,215	6,364	2.7	2.6	8.8	8.3
Septicemia or severe sepsis without mechanical ventilation 96 or more hours without MCC	872	5,987	7,423	4.5	4.2	7.9	8.2
Renal failure with CC	683	6,506	6,076	4.4	4.0	9.0	8.8
Acute myocardial infarction, discharged alive without CC/MCC	282	5,819	5,531	2.1	2.0	9.8	10.2
Threatened abortion	778	6,898	5,592	4.0	3.8	4.5	4.8
Chronic obstructive pulmonary disease without CC/MCC	192	7,061	5,359	3.2	3.1	6.0	5.9
Pulmonary edema and respiratory failure	189	6,810	5,334	7.8	7.6	9.1	8.6
Heart failure and shock with CC	292	6,042	6,142	3.8	3.9	9.0	8.5
Chronic obstructive pulmonary disease with CC	191	6,499	5,349	3.9	3.7	7.9	7.6
Intracranial hemorrhage or cerebral infarction with MCC	064	5,596	5,649	6.5	6.1	11.8	11.6
Gastrointestinal obstruction with CC	389	5,610	5,691	3.9	3.7	8.3	8.4
Coronary bypass with cardiac catheterization without MCC	234	3,469	6,426	6.9	6.6	14.2	14.2
Hypertension without MCC	305	5,486	4,945	2.3	2.2	7.9	7.5
Major chest procedure with CC	164	5,202	4,987	5.3	5.0	11.8	11.7

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Heart failure and shock with MCC	291	5,513	4,275	5.8	5.7	10.4	9.9
Other antepartum diagnoses without medical complications	782	5,418	4,739	3.3	3.1	4.6	4.9
Other skin, subcutaneous tissue and breast procedure without CC/MCC	581	6,077	4,484	2.4	2.2	8.1	8.5
Peripheral vascular disorders with CC	300	5,454	4,623	4.0	3.7	7.3	7.5
Postoperative and post-traumatic infections without MCC	863	5,283	4,708	3.8	3.7	5.7	6.1
Lower extremity and humerus procedure except hip, foot, femur with CC	493	5,357	4,713	3.6	3.4	9.8	10.3
Back and neck procedure excluding spinal fusion with CC/MCC or disc device/neurostimulation	490	5,056	4,430	3.1	3.0	8.6	9.0
Gastrointestinal hemorrhage without CC/MCC	379	5,831	3,986	2.4	2.3	8.1	8.2
Renal failure with MCC	682	5,200	4,464	6.2	6.2	10.5	10.3
Other circulatory system diagnoses with MCC	314	4,860	4,489	6.6	6.9	10.3	10.5
Inflammatory bowel disease with CC	386	4,794	4,650	4.6	4.5	8.9	9.0
Nutritional and miscellaneous metabolic disorders with MCC	640	4,870	3,921	4.7	4.7	8.2	8.4
Postpartum and post abortion diagnoses without O.R. procedure	776	5,069	4,480	2.8	2.7	5.8	6.0
Appendectomy with complicated principal diagnosis without CC/MCC	340	4,748	4,206	3.3	3.2	7.7	7.9
Major cardiovascular procedure without MCC	238	5,065	4,182	4.1	4.3	11.4	11.9
Fever	864	3,628	4,999	2.9	2.8	6.4	7.2
Other skin, subcutaneous tissue and breast procedure with CC	580	5,693	3,813	3.6	3.7	9.9	10.3
Craniotomy and endovascular intracranial procedure with MCC	025	4,507	4,458	9.2	8.5	13.1	13.3
Laparoscopic cholecystectomy without common duct exploration with MCC	417	4,330	4,342	5.1	4.8	12.5	12.5
Atherosclerosis without MCC	303	5,206	3,356	1.9	1.8	6.2	5.8
Viral illness without MCC	866	4,885	3,634	2.5	2.6	6.2	6.4
Cranial and peripheral nerve disorders without MCC	074	4,565	4,272	3.7	3.6	7.9	7.8
Craniotomy and endovascular intracranial procedure without CC/MCC	027	4,579	4,124	3.2	3.0	9.8	10.0
Extensive O.R. procedure unrelated to principal diagnosis with CC	982	4,597	3,970	5.8	5.2	11.0	10.7
Cervical spinal fusion with CC	472	2,760	4,778	2.1	2.1	12.0	12.9
Other digestive system diagnoses without CC/MCC	395	4,803	3,278	2.1	2.1	4.6	4.9
Extensive O.R. procedure unrelated to principal diagnosis with MCC	981	4,486	3,497	14.5	13.7	13.5	13.3
Hernia procedure except inguinal and femoral without CC/MCC	355	4,168	3,792	2.4	2.4	5.0	5.3

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
O.R. procedure for obesity with CC	620	3,712	3,617	2.5	2.6	7.5	8.1
Signs and symptoms without MCC	948	3,348	4,046	3.3	3.3	5.9	6.2
Transurethral procedure with CC	669	3,621	4,058	2.1	2.1	10.6	11.0
Acute myocardial infarction, discharged alive with CC	281	3,614	3,798	2.8	2.7	11.3	11.2
Fracture, sprain, strain and dislocation except femur, hip, pelvis and thigh without MCC	563	4,121	3,224	2.5	2.5	5.6	6.1
Respiratory system diagnosis with ventilator support, less than 96 hours	208	3,750	3,884	6.7	7.0	11.8	11.7
Other ear, nose, mouth and throat O.R. procedure without CC/MCC	134	4,131	3,301	1.6	1.6	5.3	5.4
Infectious and parasitic diseases with O.R. procedure with MCC	853	3,659	3,924	16.6	15.2	14.2	14.1
Extensive O.R. procedure unrelated to principal diagnosis without CC/MCC	983	3,504	4,322	3.1	2.4	7.4	7.1
Craniotomy and endovascular intracranial procedure with CC	026	4,009	3,441	5.2	5.0	11.6	11.7
Stomach, esophageal and duodenal procedure without CC/MCC	328	3,824	3,724	2.8	2.5	6.1	6.1
Major hematological/immunological diagnosis excluding sickle cell crisis and coagulation with CC	809	2,803	4,176	4.8	4.6	6.9	7.3
Poisoning and toxic effects of drugs with MCC	917	3,802	3,647	3.9	3.9	9.1	9.4
Major chest procedure with MCC	163	3,888	3,283	11.3	11.0	13.7	13.7
Dysequilibrium	149	3,839	3,116	2.1	2.0	8.1	7.8
Respiratory signs and symptoms	204	4,216	3,122	2.6	2.4	7.8	7.5
Stomach, esophageal and duodenal procedure with CC	327	3,801	3,477	6.4	6.0	10.5	10.4
Female reproductive system reconstructive procedure	748	4,046	3,023	1.5	1.5	4.6	4.9
Seizures with MCC	100	3,711	3,465	4.2	3.9	9.4	9.3
Other circulatory system diagnoses with CC	315	3,659	3,531	3.6	3.5	8.5	8.2
Other vascular procedure with CC	253	3,583	3,325	4.3	4.4	11.0	11.0
Menstrual and other female reproductive system disorders without CC/MCC	761	4,010	2,767	1.7	1.6	3.7	3.9
Kidney and ureter procedure for non-neoplasm with CC	660	3,514	3,443	3.4	3.4	9.0	9.3
Peripheral vascular disorders without CC/MCC	301	3,753	3,165	2.9	2.8	5.4	5.6
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis with MCC	441	3,083	3,511	6.5	6.4	10.3	10.5
Major gastrointestinal disorders and peritoneal infections with CC	372	3,511	3,571	4.8	4.4	8.2	8.3
Neuroses except depressive	882	3,431	3,278	5.4	5.7	4.0	3.9

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Appendectomy without complicated principal diagnosis with CC	342	3,466	3,023	2.6	2.5	9.0	9.2
Alcohol/drug abuse or dependence with rehabilitation therapy	895	3,770	3,102	8.1	8.7	4.3	3.9
Disorders of pancreas except malignancy with MCC	438	3,350	2,996	7.4	7.5	10.5	10.8
Diabetes with MCC	637	3,570	2,281	4.4	5.1	8.7	9.4
Extracorporeal continuous membrane oxygenation or tracheostomy with mechanical ventilation 96 or more hours or primary diagnosis excluding face, mouth and neck with major O.R.	003	3,626	2,985	42.1	41.1	14.7	14.7
Coronary bypass with cardiac catheterization with MCC	233	1,988	3,578	9.7	9.2	14.7	14.7
Rehabilitation without CC/MCC	946	3,150	3,266	9.3	9.4	4.2	4.4
Hip and femur procedure except major joint without CC/MCC	482	3,447	3,069	3.0	2.9	8.3	8.5
Major cardiovascular procedure with MCC or thoracic aortic aneurysm repair	237	3,182	3,065	10.0	9.5	13.9	14.1
Intracranial hemorrhage or cerebral infarction without CC/MCC	066	3,392	2,991	3.6	3.6	9.1	8.6
Cellulitis with MCC	602	3,014	2,818	5.8	5.5	8.9	9.2
Peritoneal adhesiolysis with CC	336	3,287	3,046	6.3	6.2	10.1	10.3
Kidney and urinary tract infections with MCC	689	3,095	2,845	4.9	4.6	8.8	8.9
Circulatory disorders except acute myocardial infarction, with cardiovascular catheterization with MCC	286	3,107	2,777	5.8	5.6	13.6	13.5
Complications of treatment with CC	920	3,190	2,857	3.5	3.3	6.6	6.9
Peripheral vascular disorders with MCC	299	3,040	2,848	5.5	4.9	9.4	9.2
Respiratory infections and inflammations with MCC	177	3,134	2,954	9.3	8.7	10.2	10.1
Vagina, cervix and vulva procedure without CC/MCC	747	3,468	2,659	1.5	1.5	7.2	7.3
Acute adjustment reaction and psychosocial dysfunction	880	2,991	2,877	4.1	4.2	6.1	5.9
Other respiratory system O.R. procedure with MCC	166	3,451	2,461	12.0	12.1	14.0	14.0
Other digestive system diagnoses with MCC	393	2,947	2,598	6.1	5.8	9.7	9.8
Disorders of the biliary tract without CC/MCC	446	3,146	2,444	2.1	2.1	6.2	6.3
Postoperative or post-traumatic infections with O.R. procedure with CC	857	2,995	2,704	5.8	5.5	9.7	9.8
Other O.R. procedure for injuries with CC	908	2,748	2,808	4.5	4.2	9.0	9.2
Other respiratory system diagnoses without MCC	206	3,117	2,382	2.4	2.4	7.4	7.4
Extracranial procedure without CC/MCC	039	3,030	2,454	1.4	1.5	7.1	7.3

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Neonates, died or transferred to another acute care facility	789	3,001	3,373	8.5	7.7	7.1	6.6
Cardiac arrhythmia and conduction disorders with MCC	308	2,622	2,651	4.2	4.2	10.0	9.7
Heart failure and shock without CC/MCC	293	3,365	2,302	2.9	2.8	7.4	6.7
Percutaneous cardiovascular procedure with drug-eluting stent with MCC or 4 or more vessels/stents	246	2,840	2,672	3.2	3.4	13.6	13.8
Revision of hip or knee replacement without CC/MCC	468	2,607	2,806	3.0	2.8	7.7	7.7
Inflammatory bowel disease without CC/MCC	387	2,973	2,413	3.6	3.4	6.9	7.2
Stomach, esophageal and duodenal procedure with MCC	326	2,824	2,500	14.5	13.4	13.0	13.1
Disorders of the biliary tract with CC	445	2,731	2,438	3.0	3.0	8.7	8.8
Acute myocardial infarction, discharged alive with MCC	280	2,505	2,289	5.4	5.1	11.8	11.7
Peritoneal adhesiolysis without CC/MCC	337	2,617	2,451	3.9	3.6	7.6	7.8
Postoperative and post-traumatic infections with MCC	862	2,352	2,503	6.3	6.4	8.9	9.1
Cardiac defibrillator implant without cardiac catheterization without MCC	227	2,906	2,116	2.4	2.5	8.9	9.2
Hip and femur procedure except major joint with CC	481	2,578	2,486	4.9	4.7	11.2	11.2
Other vascular procedure without CC/MCC	254	2,807	2,168	2.2	2.3	8.3	8.2
Skin graft and/or debridement excluding for skin ulcer or cellulitis without CC/MCC	578	2,544	2,327	2.4	2.1	9.9	10.4
Revision of hip or knee replacement with CC	467	2,243	2,644	4.1	3.7	9.7	10.2
Hernia procedure except inguinal and femoral with CC	354	2,497	2,295	3.9	3.8	7.6	7.8
Gastrointestinal hemorrhage with MCC	377	2,550	2,234	5.3	5.2	10.9	11.3
Coagulation disorders	813	2,628	2,353	3.6	3.3	7.2	7.1
Other disorders of nervous system with CC	092	2,466	2,317	3.6	3.6	8.4	8.4
Other vascular procedure with MCC	252	2,631	2,250	8.2	7.6	13.1	13.0
Non-extensive O.R. procedure unrelated to principal diagnosis with CC	988	2,779	2,113	4.7	5.1	10.3	10.9
Respiratory system diagnosis with ventilator support 96 or more hours	207	2,361	2,366	19.5	19.5	12.8	12.7
Other cardiothoracic procedure with CC	229	4,598	1,222	6.2	5.7	14.0	13.5
Pulmonary embolism with MCC	175	2,183	2,352	5.8	5.6	10.8	10.4
Other kidney and urinary tract diagnoses with CC	699	2,320	2,567	3.7	3.7	8.1	8.0
Cirrhosis and alcoholic hepatitis with MCC	432	2,389	2,049	7.0	6.3	10.7	10.9

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Bone diseases and arthropathies without MCC	554	2,416	1,952	4.7	4.4	4.4	4.6
Major joint replacement or reattachment of lower extremity with MCC	469	2,432	1,937	5.4	5.0	11.1	11.2
Uterine, adnexa procedure for non-ovarian/adnexal malignancy without CC/MCC	741	2,411	1,987	2.1	1.8	7.2	7.3
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis with CC	442	2,337	2,308	4.0	4.0	8.6	8.9
Nervous system neoplasms without MCC	055	2,702	1,924	4.9	4.6	7.9	8.1
Percutaneous cardiovascular procedure with non-drug-eluting stent with MCC or 4 or more vessels/stents	248	2,953	1,766	3.9	4.1	13.7	13.8
Major gastrointestinal disorders and peritoneal infections without CC/MCC	373	2,503	2,116	3.2	3.1	6.0	6.2
Other respiratory system O.R. procedure with CC	167	2,667	1,897	6.0	5.7	12.7	12.7
Viral meningitis without CC/MCC	076	2,536	2,140	2.7	2.6	7.1	7.6
Red blood cell disorders with MCC	811	2,231	2,098	5.5	5.4	9.5	9.6
Other cardiothoracic procedure with MCC	228	3,739	1,442	9.9	10.8	14.6	14.3
Minor skin disorders without MCC	607	2,348	2,132	2.6	2.5	5.3	5.7
Ectopic pregnancy	777	2,412	1,835	1.8	1.7	6.8	7.1
Angina pectoris	311	2,750	1,623	1.8	1.5	7.1	6.1
Combined anterior/posterior spinal fusion without CC/MCC	455	2,269	2,279	3.0	2.8	13.1	13.4
Tendonitis, myositis and bursitis without MCC	558	2,140	2,160	3.2	3.2	6.6	6.8
Kidney and ureter procedure for non-neoplasm without CC/MCC	661	2,203	2,058	2.3	2.2	7.0	7.1
Respiratory infections and inflammations with CC	178	2,271	2,092	6.4	6.0	8.6	8.6
Major gastrointestinal disorders and peritoneal infections with MCC	371	2,187	1,930	6.8	7.1	9.7	10.2
Kidney and ureter procedure for neoplasm without CC/MCC	658	2,071	1,988	3.1	2.9	7.2	7.2
Major joint and limb reattachment procedure of upper extremity without CC/MCC	484	2,022	2,217	1.8	1.7	6.4	6.9
Cardiac valve and other major cardiothoracic procedure with cardiovascular catheterization with MCC	216	1,350	2,302	12.9	11.4	14.8	14.6
Renal failure without CC/MCC	684	2,390	1,984	3.2	3.1	7.2	7.0
Traumatic stupor and coma, coma, less than 1 hr without CC/MCC	087	2,144	1,944	3.6	3.2	6.5	6.7
Cranial/facial procedure without CC/MCC	132	2,396	1,861	1.6	1.6	6.0	6.4
Respiratory neoplasms with CC	181	2,318	1,748	5.0	4.5	9.3	9.5

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Shoulder, elbow or forearm procedure, excluding major joint procedure without CC/MCC	512	2,285	1,813	1.5	1.6	6.1	7.0
Pneumothorax with CC	200	2,069	1,870	3.4	3.4	8.5	9.0
Signs and symptoms of musculoskeletal system and connective tissue without MCC	556	2,077	1,844	2.8	2.9	7.1	6.9
Digestive malignancy with CC	375	2,212	1,847	5.7	5.0	9.3	9.5
Soft tissue procedure without CC/MCC	502	2,390	1,619	2.2	2.1	7.1	6.5
Other disorders of nervous system with MCC	091	1,943	1,966	6.5	6.2	10.1	10.1
Behavioral and developmental disorders	886	2,193	1,841	9.9	10.0	3.3	3.3
Major male pelvic procedure with CC/MCC	707	1,923	1,754	3.5	3.1	8.7	8.9
Mastectomy for malignancy without CC/MCC	583	1,969	1,838	1.8	2.1	5.6	6.1
Complications of treatment with MCC	919	1,883	1,843	6.4	6.8	8.9	9.1
Bilateral or multiple major joint procedures of lower extremity without MCC	462	2,005	1,827	3.0	2.9	8.5	8.5
Disorders of the biliary tract with MCC	444	2,041	1,735	4.5	4.1	10.0	10.1
Respiratory neoplasms with MCC	180	2,064	1,758	7.2	6.8	11.0	11.1
Other disorders of nervous system without CC/MCC	093	1,989	1,755	3.1	3.3	6.4	6.4
Other factors influencing health status	951	2,153	2,302	3.1	3.0	3.6	4.2
Appendectomy with complicated principal diagnosis with CC	339	1,933	1,839	5.3	5.1	9.5	9.9
Other kidney and urinary tract diagnoses with MCC	698	2,005	1,563	5.5	6.3	9.3	9.9
Postoperative or post-traumatic infections with O.R. procedure with MCC	856	2,059	1,684	11.9	12.5	12.6	12.8
Soft tissue procedure with CC	501	2,145	1,644	4.2	4.1	10.3	10.1
Knee procedure without primary diagnosis of infection without CC/MCC	489	2,455	1,385	2.1	2.1	6.2	6.4
Cardiac valve and other major cardiothoracic procedure with cardiovascular catheterization with CC	217	969	2,156	7.5	6.4	14.4	14.2
Endocrine disorders without CC/MCC	645	2,192	1,480	2.1	2.2	4.7	5.0
Other O.R. procedure for injuries with MCC	907	1,939	1,657	10.1	10.4	12.4	12.6
Abortion without dilation and curettage	779	2,083	1,572	1.6	1.5	4.7	5.2
Non-extensive O.R. procedure unrelated to principal diagnosis without CC/MCC	989	2,885	1,141	2.4	3.2	6.7	6.8
Spinal procedure with CC or spinal neurostimulators	029	1,799	1,837	4.9	4.8	10.4	10.8
Kidney and ureter procedure for neoplasm with CC	657	1,767	1,799	4.3	4.4	9.4	9.6
Combined anterior/posterior spinal fusion with CC	454	1,731	1,873	5.1	4.6	14.3	14.5

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Pelvic evisceration, radical hysterectomy and radical vulvectomy without CC/MCC	735	2,381	1,390	2.0	2.1	8.7	9.4
Wound debridement and skin graft excluding hand, for musculo-connective tissue disorder with CC	464	1,604	1,876	7.8	7.2	12.2	12.3
Tracheostomy with mechanical ventilation 96 or more hours or primary diagnosis excluding face, mouth and neck without major O.R.	004	1,702	1,670	31.8	32.1	13.9	14.0
Alcohol/drug abuse or dependence without rehabilitation therapy with MCC	896	1,680	1,701	6.6	6.2	9.0	8.7
O.R. procedure with diagnoses of other contact with health services with MCC	939	1,938	1,417	27.0	25.1	13.6	13.3
Allergic reactions without MCC	916	1,719	1,643	1.6	1.7	4.5	5.0
Transurethral procedure without CC/MCC	670	1,873	1,583	1.8	1.7	8.3	8.6
Alcohol/drug abuse or dependence, left against medical advice	894	1,664	1,922	3.0	3.6	3.2	4.0
Major hematological/immunological diagnosis excluding sickle cell crisis and coagulation with MCC	808	1,219	1,866	9.0	7.7	9.3	9.5
Disorders of personality and impulse control	883	1,694	1,792	14.9	14.6	4.5	4.0
Other circulatory system diagnoses without CC/MCC	316	1,958	1,403	2.2	2.2	6.9	6.5
Complications of treatment without CC/MCC	921	1,864	1,389	2.3	2.2	3.7	4.0
Kidney transplant	652	1,614	1,652	6.5	6.2	12.3	12.3
Trauma to the skin, subcutaneous tissue and breast without MCC	605	1,799	1,391	2.0	2.0	6.2	6.7
Pancreas, liver and shunt procedure with CC	406	1,587	1,557	6.7	6.5	11.6	11.6
O.R. procedure with diagnoses of other contact with health services with CC	940	1,747	1,401	11.4	10.1	10.8	10.3
Other digestive system O.R. procedure with CC	357	1,731	1,537	5.7	6.0	10.7	11.2
Anal and stomal procedure without CC/MCC	349	1,765	1,474	2.2	2.2	5.8	5.8
Other ear, nose, mouth and throat O.R. procedure with CC/MCC	133	1,653	1,550	3.7	3.8	8.8	9.3
Nervous system neoplasms with MCC	054	1,560	1,558	6.5	5.4	9.9	9.9
Spinal procedure without CC/MCC	030	1,650	1,556	3.1	2.9	8.0	8.5
Headaches with MCC	102	1,581	1,587	3.2	3.1	10.1	10.0
Skin graft and/or debridement for skin ulcer or cellulitis with CC	574	1,613	1,509	6.8	6.7	10.7	10.8
Anal and stomal procedure with CC	348	1,659	1,448	3.8	3.4	8.9	8.8
Inflammation of the male reproductive system without MCC	728	1,681	1,507	2.9	2.9	6.6	6.7

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Abortion with dilation and curettage, aspiration curettage or hysterotomy	770	1,686	1,373	1.7	1.7	6.6	7.1
Other O.R. procedure for injuries without CC/MCC	909	1,632	1,406	2.3	2.3	5.8	6.2
Endocrine disorders with CC	644	1,522	1,544	3.7	3.7	8.0	8.0
Transurethral prostatectomy without CC/MCC	714	1,604	1,224	1.6	1.5	4.3	4.2
Coronary bypass without cardiac catheterization without MCC	236	2,047	1,173	5.4	5.3	10.9	10.5
Degenerative nervous system disorders without MCC	057	1,586	1,447	7.0	6.5	6.9	6.9
Menstrual and other female reproductive system disorders with CC/MCC	760	1,495	1,381	2.4	2.4	6.4	6.8
Postpartum and post abortion diagnoses with O.R. procedure	769	1,557	1,413	4.9	4.4	9.7	9.7
Non-extensive O.R. procedure unrelated to principal diagnosis with MCC	987	1,674	1,224	10.8	12.1	13.1	13.2
Chemotherapy with acute leukemia as secondary diagnosis with CC or high dose chemotherapy agent	838	1,435	1,539	8.7	8.6	8.4	8.5
O.R. procedure with diagnoses of other contact with health services without CC/MCC	941	1,703	1,184	4.6	4.2	7.0	7.0
Local excision and removal internal fixation devices excluding hip and femur without CC/MCC	497	1,620	1,247	2.0	2.0	6.4	6.9
Local excision and removal internal fixation devices excluding hip and femur with CC	496	1,525	1,363	4.0	3.7	9.5	9.7
Malignancy of hepatobiliary system or pancreas with MCC	435	1,491	1,261	6.7	6.7	10.8	10.9
Chemotherapy with acute leukemia as secondary diagnosis without CC/MCC	839	1,462	1,455	4.6	4.6	6.2	6.2
Gastrointestinal obstruction with MCC	388	1,496	1,177	5.8	6.0	9.8	10.0
Other multiple significant trauma with CC	964	1,446	1,321	5.1	5.0	10.5	10.7
Otitis media and upper respiratory illnesses with MCC	152	1,372	1,177	3.1	3.2	7.3	7.6
Malignancy of hepatobiliary system or pancreas with CC	436	1,428	1,305	5.0	4.5	9.0	9.3
Skin graft and/or debridement excluding for skin ulcer or cellulitis with CC	577	1,365	1,304	3.7	3.4	11.2	11.7
Minor small and large bowel procedure with CC	345	1,684	1,114	5.1	4.9	6.7	6.8
Concussion without CC/MCC	090	1,436	1,110	1.5	1.4	6.3	6.5
Thyroid, parathyroid and thyroglossal procedure with CC	626	1,280	1,170	2.0	2.1	7.2	7.5
Pelvic evisceration, radical hysterectomy and radical vulvectomy with CC/MCC	734	1,652	1,023	4.9	4.7	11.6	11.8

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Cardiac valve and other major cardiothoracic procedure without cardiovascular catheterization with MCC	219	1,986	955	8.8	8.5	14.2	13.9
Major chest procedure without CC/MCC	165	1,332	1,225	3.9	3.9	8.9	8.9
Other musculoskeletal system and connective tissue O.R. procedure without CC/MCC	517	1,499	1,104	2.4	2.3	6.6	6.6
Cholecystectomy except by laparoscope without common duct exploration with CC	415	1,407	1,152	5.0	5.0	10.1	9.9
Cranial and peripheral nerve disorders with MCC	073	1,371	1,182	5.0	4.8	10.0	10.0
Viral meningitis with CC/MCC	075	1,335	1,264	4.3	4.2	9.6	9.7
Uncomplicated peptic ulcer without MCC	384	1,395	1,253	2.8	2.8	9.5	9.8
Other digestive system O.R. procedure with MCC	356	1,432	1,151	11.6	10.8	13.1	13.2
Other circulatory system O.R. procedure	264	1,274	1,188	9.3	9.0	11.9	11.5
Multiple sclerosis and cerebellar ataxia without CC/MCC	060	1,344	1,199	3.9	3.8	7.3	7.3
Lower extremity and humerus procedure except hip, foot, femur with MCC	492	1,316	1,161	5.6	5.4	11.7	11.9
Pancreas, liver and shunt procedure with MCC	405	1,256	1,209	14.7	14.2	13.6	13.7
Lymphoma and non-acute leukemia with CC	841	1,396	1,184	7.1	6.9	9.5	9.8
Other kidney and urinary tract diagnoses without CC/MCC	700	1,414	1,059	2.5	2.6	5.6	5.6
Connective tissue disorders with CC	546	1,275	1,269	4.8	4.7	9.5	9.2
Viral illness with MCC	865	1,138	949	4.1	4.1	8.7	8.9
Cirrhosis and alcoholic hepatitis with CC	433	1,342	1,173	4.2	4.0	9.4	9.6
Other respiratory system diagnoses with MCC	205	1,258	1,154	4.6	4.7	8.7	8.8
Other ear, nose, mouth and throat diagnoses without CC/MCC	156	1,416	1,053	2.0	2.0	4.6	4.9
Other O.R. procedure for multiple significant trauma with CC	958	1,313	1,171	8.0	7.8	13.6	13.8
Pathological fractures and musculoskeletal and connective tissue malignancy with CC	543	1,267	1,141	5.8	5.3	9.2	9.3
Cardiac valve and other major cardiothoracic procedure without cardiovascular catheterization with CC	220	1,867	824	6.0	5.9	13.2	12.1
Other O.R. procedure for multiple significant trauma with MCC	957	1,254	1,138	13.9	13.7	14.1	14.3
Other musculoskeletal system and connective tissue O.R. procedure with CC	516	1,379	1,033	4.1	4.4	9.8	10.2
Other ear, nose, mouth and throat diagnoses with CC	155	1,199	1,093	3.0	2.9	7.2	7.4

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Permanent cardiac pacemaker implant without CC/MCC	244	1,257	1,016	2.3	2.4	10.1	10.2
Peripheral/cranial nerve and other nervous system procedure with CC or peripheral neurostimulation	041	1,129	1,137	5.6	5.2	10.7	10.6
Adrenal and pituitary procedure with CC/MCC	614	1,246	839	5.0	4.7	11.1	10.6
Dental and oral diseases with CC	158	1,109	1,198	3.4	3.2	6.9	7.0
Hip and femur procedure except major joint with MCC	480	1,210	1,044	7.2	6.8	11.6	11.9
Uterine and adnexa procedure for ovarian or adnexal malignancy with CC	737	1,093	1,029	5.0	5.0	11.7	11.7
Craniotomy with major device implantation/acute complex central nervous system primary diagnosis with MCC or chemotherapy implant	023	1,093	1,060	12.5	12.1	14.2	14.4
Other disorders of the eye without MCC	125	1,199	1,061	2.6	2.4	5.8	6.5
Percutaneous cardiovascular procedure without coronary artery stent with MCC	250	1,096	994	5.0	5.4	12.3	12.6
Mastectomy for malignancy with CC/MCC	582	1,070	1,008	2.1	2.4	6.5	7.2
Respiratory infections and inflammations without CC/MCC	179	1,171	1,001	5.2	5.3	6.7	6.8
Connective tissue disorders without CC/MCC	547	1,229	971	3.2	3.4	6.7	6.8
Digestive malignancy with MCC	374	1,109	915	9.7	8.9	10.9	11.1
Inflammatory bowel disease with MCC	385	1,054	965	6.5	6.5	10.1	10.2
Ventricular shunt procedure with CC	032	1,090	1,028	3.4	3.2	8.5	8.4
Septicemia or severe sepsis with mechanical ventilation 96 or more hours	870	926	1,105	15.6	15.6	13.6	13.6
Pneumothorax without CC/MCC	201	1,149	1,012	2.8	2.7	6.5	6.6
Traumatic injury without MCC	914	1,127	876	2.4	2.6	5.5	5.9
Permanent cardiac pacemaker implant with CC	243	1,008	991	3.6	3.9	12.0	12.0
Infections, female reproductive system without CC/MCC	759	1,126	947	2.7	2.5	5.3	5.5
Lymphoma and non-acute leukemia with MCC	840	1,075	893	11.8	12.7	11.4	11.7
Connective tissue disorders with MCC	545	1,140	858	8.5	8.6	11.3	11.5
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis without CC/MCC	443	1,149	925	3.0	3.0	6.7	6.8
Appendectomy with complicated principal diagnosis with MCC	338	1,018	970	7.3	6.9	11.8	11.9
Peritoneal adhesiolysis with MCC	335	1,058	856	10.4	10.5	12.8	12.7
Medical back problems with MCC	551	1,038	930	5.3	5.1	10.2	9.9
Other kidney and urinary tract procedure with MCC	673	1,069	906	10.9	10.5	12.8	12.9

Table A-1. Average Length of Stay (Days) and Procedures Coded, per Admission by DRG, 2008 and 2010, Unweighted, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Number of Admissions		Length of Stay		Procedures per Admission	
		2008	2010	2008	2010	2008	2010
Infectious and parasitic diseases with O.R. procedure with CC	854	910	1,166	7.0	7.0	12.5	12.2
Vaginal delivery with O.R. procedure except sterilization and/or dilation and curettage	768	1,036	853	2.6	2.5	8.2	7.9
Spinal fusion except cervical with MCC	459	1,146	840	7.0	6.8	14.3	14.3
Amputation of lower limb for endocrine, nutritional, and metabolic disorder with CC	617	955	996	7.3	6.5	12.3	12.2
Spinal fusion excluding cervical with spinal curvature/malignancy/infection or 9 or more fusion with CC	457	920	1,041	5.7	5.6	13.9	13.9
Acute leukemia without major O.R. procedure with MCC	834	991	883	22.9	22.9	12.4	12.4
Breast biopsy, local excision and other breast procedure without CC/MCC	585	824	980	1.9	1.9	4.0	4.5

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Notes: CC = complications and comorbidities; MCC = major complications and comorbidities; DRG v28 = diagnosis related group version 28.

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Vaginal delivery without complicating diagnoses	775	7.4%	1.9%	5.4%
Normal newborn	795	7.5%	4.0%	3.4%
Cesarean section without CC/MCC	766	7.6%	0.9%	6.6%
Psychoses	885	3.1%	-0.2%	3.3%
Major joint replacement or reattachment of lower extremity without MCC	470	6.8%	1.1%	5.7%
Uterine and adnexa procedure for non-malignancy without CC/MCC	743	9.8%	1.0%	8.7%
Cesarean section with CC/MCC	765	7.1%	0.0%	7.0%
Esophagitis, gastroenterological and miscellaneous digestive disorders without MCC	392	9.4%	0.8%	8.5%
Neonate with other significant problems	794	7.5%	2.8%	4.6%
Alcohol/drug abuse or dependence without rehabilitation therapy without MCC	897	6.0%	2.6%	3.3%
Vaginal delivery with complicating diagnoses	774	8.5%	2.5%	5.8%
Chest pain	313	8.8%	-4.3%	13.7%
Cellulitis without MCC	603	9.5%	3.2%	6.0%
Circulatory disorders except acute myocardial infarction, with cardiovascular catheterization without MCC	287	9.2%	0.0%	9.2%
Full term neonate with major problems	793	7.7%	1.9%	5.7%
Spinal fusion except cervical without MCC	460	15.2%	0.3%	14.9%
Appendectomy without complicated principal diagnosis without CC/MCC	343	8.6%	1.4%	7.1%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Nutritional and miscellaneous metabolic disorders without MCC	641	9.4%	2.4%	6.8%
Simple pneumonia and pleurisy with CC	194	9.6%	0.0%	9.6%
Bronchitis and asthma without CC/MCC	203	10.3%	0.3%	9.9%
O.R. procedure for obesity without CC/MCC	621	5.6%	3.5%	2.0%
Other antepartum diagnoses with medical complications	781	12.2%	1.8%	10.2%
Cardiac arrhythmia and conduction disorders without CC/MCC	310	6.1%	-3.4%	9.8%
Major small and large bowel procedure with CC	330	5.1%	0.4%	4.7%
Percutaneous cardiovascular procedure with drug-eluting stent without MCC	247	7.6%	2.3%	5.2%
Rehabilitation with CC/MCC	945	1.5%	-0.9%	2.5%
Simple pneumonia and pleurisy without CC/MCC	195	7.0%	0.9%	6.1%
Uterine and adnexa procedure for non-malignancy with CC/MCC	742	10.5%	1.5%	8.9%
Back and neck procedure excluding spinal fusion without CC/MCC	491	10.8%	1.0%	9.7%
Kidney and urinary tract infections without MCC	690	8.5%	0.8%	7.6%
Bronchitis and asthma with CC/MCC	202	9.2%	0.3%	8.8%
Seizures without MCC	101	7.3%	-0.1%	7.4%
Percutaneous cardiovascular procedure with non-drug-eluting stent without MCC	249	8.7%	1.8%	6.8%
Laparoscopic cholecystectomy without common duct exploration with CC	418	8.0%	0.7%	7.3%
Septicemia or severe sepsis without mechanical ventilation 96 or more hours with MCC	871	6.9%	-0.4%	7.4%
Syncope and collapse	312	9.2%	-3.2%	12.8%
Cervical spinal fusion without CC/MCC	473	11.6%	6.0%	5.3%
Extreme immaturity or respiratory distress syndrome, neonate	790	9.0%	1.6%	7.3%
Prematurity without major problems	792	9.6%	2.5%	7.0%
Laparoscopic cholecystectomy without common duct exploration without CC/MCC	419	9.4%	1.5%	7.8%
Chemotherapy without acute leukemia as secondary diagnosis with CC	847	8.9%	3.5%	5.2%
Lower extremity and humerus procedure except hip, foot, femur without CC/MCC	494	9.2%	2.0%	7.0%
Red blood cell disorders without MCC	812	9.2%	3.4%	5.7%
Depressive neuroses	881	4.8%	0.6%	4.2%
Medical back problems without MCC	552	10.9%	1.0%	9.7%
Major male pelvic procedure without CC/MCC	708	7.9%	3.5%	4.2%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Poisoning and toxic effects of drugs without MCC	918	10.3%	2.4%	7.8%
Percutaneous cardiovascular procedure without coronary artery stent without MCC	251	9.5%	4.1%	5.2%
Urinary stones without Extracorporeal Shock Wave Lithotripsy without MCC	694	10.6%	2.9%	7.5%
Headaches without MCC	103	8.8%	0.6%	8.1%
Esophagitis, gastroenterological and miscellaneous digestive disorders with MCC	391	11.1%	0.9%	10.1%
Otitis media and upper respiratory illnesses without MCC	153	10.4%	1.0%	9.3%
Diabetes without CC/MCC	639	8.6%	0.6%	7.9%
Disorders of pancreas except malignancy without CC/MCC	440	2.8%	0.4%	2.4%
Major small and large bowel procedure with MCC	329	7.8%	0.1%	7.7%
Pulmonary embolism without MCC	176	6.4%	-2.2%	8.9%
Gastrointestinal hemorrhage with CC	378	7.0%	1.2%	5.7%
Simple pneumonia and pleurisy with MCC	193	5.7%	-0.1%	5.9%
Transient ischemia	069	9.2%	-2.3%	11.7%
Major small and large bowel procedure without CC/MCC	331	6.3%	0.6%	5.7%
Other digestive system diagnoses with CC	394	8.5%	1.3%	7.1%
Gastrointestinal obstruction without CC/MCC	390	5.7%	0.5%	5.2%
Chronic obstructive pulmonary disease with MCC	190	6.3%	-1.0%	7.4%
Disorders of pancreas except malignancy with CC	439	7.6%	-0.4%	8.0%
Thyroid, parathyroid and thyroglossal procedure without CC/MCC	627	9.1%	1.0%	8.1%
Diabetes with CC	638	11.3%	-0.4%	11.7%
Intracranial hemorrhage or cerebral infarction with CC	065	5.3%	-2.1%	7.7%
Prematurity with major problems	791	9.4%	1.3%	8.0%
Vaginal delivery with sterilization and/or dilation and curettage	767	10.2%	1.8%	8.3%
Cardiac arrhythmia and conduction disorders with CC	309	8.0%	-3.0%	11.4%
Septicemia or severe sepsis without mechanical ventilation 96 or more hours without MCC	872	6.8%	1.5%	5.2%
Renal failure with CC	683	4.3%	-1.5%	5.9%
Acute myocardial infarction, discharged alive without CC/MCC	282	6.8%	1.7%	5.0%
Threatened abortion	778	8.4%	3.6%	4.7%
Chronic obstructive pulmonary disease without CC/MCC	192	7.0%	-0.3%	7.3%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Pulmonary edema and respiratory failure	189	1.9%	-2.8%	4.9%
Heart failure and shock with CC	292	11.0%	-2.9%	14.3%
Chronic obstructive pulmonary disease with CC	191	7.1%	-1.6%	8.8%
Intracranial hemorrhage or cerebral infarction with MCC	064	4.3%	-0.7%	5.0%
Gastrointestinal obstruction with CC	389	7.1%	0.6%	6.4%
Coronary bypass with cardiac catheterization without MCC	234	7.0%	-0.1%	7.0%
Hypertension without MCC	305	10.0%	-2.5%	12.9%
Major chest procedure with CC	164	4.6%	-0.4%	4.9%
Heart failure and shock with MCC	291	10.9%	-2.5%	13.7%
Other antepartum diagnoses without medical complications	782	7.1%	3.2%	3.7%
Other skin, subcutaneous tissue and breast procedure without CC/MCC	581	20.1%	2.1%	17.6%
Peripheral vascular disorders with CC	300	5.7%	1.1%	4.5%
Postoperative and post-traumatic infections without MCC	863	5.1%	3.7%	1.3%
Lower extremity and humerus procedure except hip, foot, femur with CC	493	9.6%	2.2%	7.2%
Back and neck procedure excluding spinal fusion with CC/MCC or disc device/neurostimulation	490	6.6%	2.8%	3.7%
Gastrointestinal hemorrhage without CC/MCC	379	7.0%	0.4%	6.5%
Renal failure with MCC	682	7.1%	-0.7%	7.9%
Other circulatory system diagnoses with MCC	314	11.3%	0.7%	10.4%
Inflammatory bowel disease with CC	386	8.1%	0.7%	7.3%
Nutritional and miscellaneous metabolic disorders with MCC	640	9.0%	1.5%	7.5%
Postpartum and post abortion diagnoses without O.R. procedure	776	6.9%	1.1%	5.7%
Appendectomy with complicated principal diagnosis without CC/MCC	340	8.0%	1.4%	6.5%
Major cardiovascular procedure without MCC	238	13.8%	2.2%	11.4%
Fever	864	4.5%	5.9%	-1.3%
Other skin, subcutaneous tissue and breast procedure with CC	580	18.9%	1.9%	16.6%
Craniotomy and endovascular intracranial procedure with MCC	025	5.9%	0.6%	5.3%
Laparoscopic cholecystectomy without common duct exploration with MCC	417	8.1%	0.1%	8.0%
Atherosclerosis without MCC	303	6.1%	-3.0%	9.3%
Viral illness without MCC	866	12.2%	1.8%	10.2%
Cranial and peripheral nerve disorders without MCC	074	11.4%	-0.2%	11.7%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Craniotomy and endovascular intracranial procedure without CC/MCC	027	7.2%	1.0%	6.1%
Extensive O.R. procedure unrelated to principal diagnosis with CC	982	7.8%	-1.3%	9.2%
Cervical spinal fusion with CC	472	10.1%	3.8%	6.2%
Other digestive system diagnoses without CC/MCC	395	9.0%	3.1%	5.7%
Extensive O.R. procedure unrelated to principal diagnosis with MCC	981	7.7%	-0.6%	8.3%
Hernia procedure except inguinal and femoral without CC/MCC	355	9.1%	3.1%	5.8%
O.R. procedure for obesity with CC	620	6.1%	3.7%	2.3%
Signs and symptoms without MCC	948	8.4%	2.7%	5.6%
Transurethral procedure with CC	669	9.7%	2.0%	7.5%
Acute myocardial infarction, discharged alive with CC	281	7.8%	-0.2%	8.0%
Fracture, sprain, strain and dislocation except femur, hip, pelvis and thigh without MCC	563	6.3%	4.5%	1.8%
Respiratory system diagnosis with ventilator support, less than 96 hours	208	6.5%	-0.2%	6.7%
Other ear, nose, mouth and throat O.R. procedure without CC/MCC	134	11.9%	0.7%	11.1%
Infectious and parasitic diseases with O.R. procedure with MCC	853	6.2%	-0.5%	6.7%
Extensive O.R. procedure unrelated to principal diagnosis without CC/MCC	983	8.7%	-1.9%	10.8%
Craniotomy and endovascular intracranial procedure with CC	026	8.5%	0.4%	8.0%
Stomach, esophageal and duodenal procedure without CC/MCC	328	7.9%	0.0%	7.9%
Major hematological/immunological diagnosis excluding sickle cell crisis and coagulation with CC	809	5.2%	3.0%	2.2%
Poisoning and toxic effects of drugs with MCC	917	10.9%	1.7%	9.0%
Major chest procedure with MCC	163	8.6%	0.0%	8.6%
Dysequilibrium	149	12.0%	-2.0%	14.3%
Respiratory signs and symptoms	204	3.8%	-1.5%	5.4%
Stomach, esophageal and duodenal procedure with CC	327	6.3%	-0.8%	7.1%
Female reproductive system reconstructive procedure	748	14.1%	3.0%	10.9%
Seizures with MCC	100	7.1%	-0.9%	8.1%
Other circulatory system diagnoses with CC	315	5.0%	-1.9%	7.0%
Other vascular procedure with CC	253	8.9%	0.3%	8.6%
Menstrual and other female reproductive system disorders without CC/MCC	761	11.1%	2.9%	7.9%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Kidney and ureter procedure for non-neoplasm with CC	660	8.4%	1.4%	6.9%
Peripheral vascular disorders without CC/MCC	301	5.4%	1.8%	3.5%
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis with MCC	441	5.7%	1.1%	4.6%
Major gastrointestinal disorders and peritoneal infections with CC	372	7.5%	0.5%	7.0%
Neuroses except depressive	882	5.1%	-1.1%	6.3%
Appendectomy without complicated principal diagnosis with CC	342	9.2%	1.2%	7.9%
Alcohol/drug abuse or dependence with rehabilitation therapy	895	2.3%	-4.5%	7.1%
Disorders of pancreas except malignancy with MCC	438	15.5%	1.4%	13.9%
Diabetes with MCC	637	12.6%	4.0%	8.2%
Extracorporeal continuous membrane oxygenation or tracheostomy with mechanical ventilation 96 or more hours or primary diagnosis excluding face, mouth and neck with major O.R.	003	8.7%	0.1%	8.6%
Coronary bypass with cardiac catheterization with MCC	233	8.3%	0.1%	8.2%
Rehabilitation without CC/MCC	946	5.1%	2.1%	3.0%
Hip and femur procedure except major joint without CC/MCC	482	8.3%	1.1%	7.2%
Major cardiovascular procedure with MCC or thoracic aortic aneurysm repair	237	9.0%	0.8%	8.2%
Intracranial hemorrhage or cerebral infarction without CC/MCC	066	4.4%	-2.7%	7.3%
Cellulitis with MCC	602	11.1%	1.4%	9.6%
Peritoneal adhesiolysis with CC	336	7.8%	1.2%	6.6%
Kidney and urinary tract infections with MCC	689	6.2%	0.6%	5.6%
Circulatory disorders except acute myocardial infarction, with cardiovascular catheterization with MCC	286	11.3%	-0.3%	11.6%
Complications of treatment with CC	920	6.2%	2.3%	3.7%
Peripheral vascular disorders with MCC	299	5.0%	-1.3%	6.4%
Respiratory infections and inflammations with MCC	177	5.0%	-0.5%	5.5%
Vagina, cervix and vulva procedure without CC/MCC	747	8.2%	0.9%	7.2%
Acute adjustment reaction and psychosocial dysfunction	880	7.6%	-1.4%	9.2%
Other respiratory system O.R. procedure with MCC	166	5.6%	-0.3%	5.8%
Other digestive system diagnoses with MCC	393	4.3%	0.7%	3.5%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Disorders of the biliary tract without CC/MCC	446	8.3%	0.3%	8.0%
Postoperative or post-traumatic infections with O.R. procedure with CC	857	2.9%	0.7%	2.2%
Other O.R. procedure for injuries with CC	908	5.5%	1.6%	3.8%
Other respiratory system diagnoses without MCC	206	8.8%	0.1%	8.7%
Extracranial procedure without CC/MCC	039	6.5%	1.2%	5.3%
Neonates, died or transferred to another acute care facility	789	-4.5%	-3.7%	-0.8%
Cardiac arrhythmia and conduction disorders with MCC	308	12.5%	-1.5%	14.2%
Heart failure and shock without CC/MCC	293	8.5%	-4.8%	14.0%
Percutaneous cardiovascular procedure with drug-eluting stent with MCC or 4 or more vessels/stents	246	8.5%	0.7%	7.8%
Revision of hip or knee replacement without CC/MCC	468	8.4%	0.4%	7.9%
Inflammatory bowel disease without CC/MCC	387	7.5%	2.7%	4.7%
Stomach, esophageal and duodenal procedure with MCC	326	7.9%	0.3%	7.6%
Disorders of the biliary tract with CC	445	9.4%	0.8%	8.5%
Acute myocardial infarction, discharged alive with MCC	280	12.2%	-0.4%	12.6%
Peritoneal adhesiolysis without CC/MCC	337	7.1%	1.2%	5.8%
Postoperative and post-traumatic infections with MCC	862	11.6%	1.2%	10.3%
Cardiac defibrillator implant without cardiac catheterization without MCC	227	6.8%	1.6%	5.1%
Hip and femur procedure except major joint with CC	481	6.1%	0.1%	5.9%
Other vascular procedure without CC/MCC	254	10.5%	-0.6%	11.1%
Skin graft and/or debridement excluding for skin ulcer or cellulitis without CC/MCC	578	7.8%	2.4%	5.3%
Revision of hip or knee replacement with CC	467	10.8%	2.3%	8.3%
Hernia procedure except inguinal and femoral with CC	354	6.8%	1.9%	4.8%
Gastrointestinal hemorrhage with MCC	377	14.2%	1.4%	12.6%
Coagulation disorders	813	7.5%	-1.1%	8.7%
Other disorders of nervous system with CC	092	8.1%	0.4%	7.6%
Other vascular procedure with MCC	252	6.3%	-0.4%	6.8%
Non-extensive O.R. procedure unrelated to principal diagnosis with CC	988	14.9%	2.7%	11.9%
Respiratory system diagnosis with ventilator support 96 or more hours	207	7.2%	0.0%	7.2%
Other cardiothoracic procedure with CC	229	9.6%	-2.0%	11.8%
Pulmonary embolism with MCC	175	9.8%	-1.9%	11.9%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Other kidney and urinary tract diagnoses with CC	699	9.6%	-0.5%	10.1%
Cirrhosis and alcoholic hepatitis with MCC	432	4.8%	1.0%	3.8%
Bone diseases and arthropathies without MCC	554	0.5%	2.0%	-1.4%
Major joint replacement or reattachment of lower extremity with MCC	469	7.0%	0.6%	6.4%
Uterine, adnexa procedure for non-ovarian/adnexal malignancy without CC/MCC	741	10.3%	0.6%	9.7%
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis with CC	442	5.9%	1.3%	4.6%
Nervous system neoplasms without MCC	055	7.7%	0.9%	6.8%
Percutaneous cardiovascular procedure with non-drug-eluting stent with MCC or 4 or more vessels/stents	248	10.3%	0.2%	10.2%
Major gastrointestinal disorders and peritoneal infections without CC/MCC	373	5.4%	1.5%	3.9%
Other respiratory system O.R. procedure with CC	167	7.7%	-0.2%	7.9%
Viral meningitis without CC/MCC	076	5.8%	2.9%	2.8%
Red blood cell disorders with MCC	811	11.2%	0.4%	10.8%
Other cardiothoracic procedure with MCC	228	19.6%	-1.0%	20.8%
Minor skin disorders without MCC	607	7.3%	4.2%	3.0%
Ectopic pregnancy	777	9.4%	2.4%	6.9%
Angina pectoris	311	7.2%	-7.2%	15.5%
Combined anterior/posterior spinal fusion without CC/MCC	455	10.3%	1.4%	8.8%
Tendonitis, myositis and bursitis without MCC	558	11.1%	1.6%	9.4%
Kidney and ureter procedure for non-neoplasm without CC/MCC	661	7.7%	0.7%	7.0%
Respiratory infections and inflammations with CC	178	5.4%	-0.2%	5.5%
Major gastrointestinal disorders and peritoneal infections with MCC	371	16.9%	2.2%	14.5%
Kidney and ureter procedure for neoplasm without CC/MCC	658	4.0%	-0.2%	4.2%
Major joint and limb reattachment procedure of upper extremity without CC/MCC	484	10.4%	3.7%	6.5%
Cardiac valve and other major cardiothoracic procedure with cardiovascular catheterization with MCC	216	5.8%	-0.5%	6.4%
Renal failure without CC/MCC	684	5.6%	-1.5%	7.1%
Traumatic stupor and coma, coma, less than 1 hr without CC/MCC	087	3.8%	1.6%	2.2%
Cranial/facial procedure without CC/MCC	132	9.7%	3.0%	6.5%
Respiratory neoplasms with CC	181	5.4%	0.6%	4.8%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Shoulder, elbow or forearm procedure, excluding major joint procedure without CC/MCC	512	10.1%	7.8%	2.1%
Pneumothorax with CC	200	7.9%	2.8%	4.9%
Signs and symptoms of musculoskeletal system and connective tissue without MCC	556	10.7%	-0.9%	11.7%
Digestive malignancy with CC	375	4.3%	1.2%	3.1%
Soft tissue procedure without CC/MCC	502	8.2%	-4.1%	12.8%
Other disorders of nervous system with MCC	091	6.3%	-0.1%	6.4%
Behavioral and developmental disorders	886	9.7%	0.0%	9.7%
Major male pelvic procedure with CC/MCC	707	6.6%	0.8%	5.7%
Mastectomy for malignancy without CC/MCC	583	22.4%	4.2%	17.5%
Complications of treatment with MCC	919	16.2%	0.9%	15.2%
Bilateral or multiple major joint procedures of lower extremity without MCC	462	9.8%	-0.1%	9.9%
Disorders of the biliary tract with MCC	444	5.5%	0.3%	5.2%
Respiratory neoplasms with MCC	180	6.6%	0.6%	5.9%
Other disorders of nervous system without CC/MCC	093	11.3%	0.4%	10.9%
Other factors influencing health status	951	-3.8%	8.7%	-11.5%
Appendectomy with complicated principal diagnosis with CC	339	6.9%	1.8%	5.0%
Other kidney and urinary tract diagnoses with MCC	698	17.8%	3.4%	13.9%
Postoperative or post-traumatic infections with O.R. procedure with MCC	856	11.9%	1.0%	10.8%
Soft tissue procedure with CC	501	7.8%	-1.1%	9.1%
Knee procedure without primary diagnosis of infection without CC/MCC	489	6.9%	1.6%	5.2%
Cardiac valve and other major cardiothoracic procedure with cardiovascular catheterization with CC	217	2.3%	-0.9%	3.2%
Endocrine disorders without CC/MCC	645	10.9%	2.6%	8.1%
Other O.R. procedure for injuries with MCC	907	9.4%	0.9%	8.5%
Abortion without dilation and curettage	779	6.1%	5.3%	0.8%
Non-extensive O.R. procedure unrelated to principal diagnosis without CC/MCC	989	15.5%	0.8%	14.6%
Spinal procedure with CC or spinal neurostimulators	029	6.9%	1.9%	4.8%
Kidney and ureter procedure for neoplasm with CC	657	5.9%	1.0%	4.8%
Combined anterior/posterior spinal fusion with CC	454	5.0%	0.7%	4.3%
Pelvic evisceration, radical hysterectomy and radical vulvectomy without CC/MCC	735	14.9%	4.2%	10.3%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Wound debridement and skin graft excluding hand, for musculo-connective tissue disorder with CC	464	6.9%	0.3%	6.5%
Tracheostomy with mechanical ventilation 96 or more hours or primary diagnosis excluding face, mouth and neck without major O.R.	004	6.1%	0.4%	5.7%
Alcohol/drug abuse or dependence without rehabilitation therapy with MCC	896	9.1%	-1.6%	10.9%
O.R. procedure with diagnoses of other contact with health services with MCC	939	2.3%	-0.9%	3.2%
Allergic reactions without MCC	916	12.2%	5.1%	6.8%
Transurethral procedure without CC/MCC	670	7.9%	1.8%	6.0%
Alcohol/drug abuse or dependence, left against medical advice	894	12.7%	11.2%	1.4%
Major hematological/immunological diagnosis excluding sickle cell crisis and coagulation with MCC	808	-4.1%	1.0%	-5.1%
Disorders of personality and impulse control	883	3.1%	-5.9%	9.6%
Other circulatory system diagnoses without CC/MCC	316	2.3%	-3.2%	5.6%
Complications of treatment without CC/MCC	921	4.6%	4.1%	0.4%
Kidney transplant	652	10.7%	0.3%	10.4%
Trauma to the skin, subcutaneous tissue and breast without MCC	605	12.2%	3.5%	8.5%
Pancreas, liver and shunt procedure with CC	406	2.8%	0.1%	2.8%
O.R. procedure with diagnoses of other contact with health services with CC	940	1.1%	-2.2%	3.4%
Other digestive system O.R. procedure with CC	357	8.5%	2.4%	6.0%
Anal and stomal procedure without CC/MCC	349	5.4%	0.1%	5.3%
Other ear, nose, mouth and throat O.R. procedure with CC/MCC	133	12.6%	2.8%	9.5%
Nervous system neoplasms with MCC	054	0.9%	0.1%	0.8%
Spinal procedure without CC/MCC	030	9.0%	3.3%	5.5%
Headaches with MCC	102	5.8%	-0.5%	6.3%
Skin graft and/or debridement for skin ulcer or cellulitis with CC	574	5.2%	0.4%	4.8%
Anal and stomal procedure with CC	348	2.8%	-0.6%	3.4%
Inflammation of the male reproductive system without MCC	728	9.4%	0.7%	8.6%
Abortion with dilation and curettage, aspiration curettage or hysterotomy	770	10.4%	3.2%	6.9%
Other O.R. procedure for injuries without CC/MCC	909	11.3%	3.2%	7.8%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Endocrine disorders with CC	644	9.9%	0.0%	9.9%
Transurethral prostatectomy without CC/MCC	714	8.7%	-0.7%	9.5%
Coronary bypass without cardiac catheterization without MCC	236	8.2%	-1.8%	10.1%
Degenerative nervous system disorders without MCC	057	6.9%	0.4%	6.5%
Menstrual and other female reproductive system disorders with CC/MCC	760	11.9%	3.0%	8.6%
Postpartum and post abortion diagnoses with O.R. procedure	769	1.3%	0.2%	1.1%
Non-extensive O.R. procedure unrelated to principal diagnosis with MCC	987	14.0%	0.6%	13.3%
Chemotherapy with acute leukemia as secondary diagnosis with CC or high dose chemotherapy agent	838	9.8%	0.6%	9.2%
O.R. procedure with diagnoses of other contact with health services without CC/MCC	941	3.3%	0.1%	3.2%
Local excision and removal internal fixation devices excluding hip and femur without CC/MCC	497	6.8%	3.4%	3.3%
Local excision and removal internal fixation devices excluding hip and femur with CC	496	5.9%	1.0%	4.8%
Malignancy of hepatobiliary system or pancreas with MCC	435	8.5%	0.2%	8.3%
Chemotherapy with acute leukemia as secondary diagnosis without CC/MCC	839	5.3%	-0.3%	5.6%
Gastrointestinal obstruction with MCC	388	15.4%	0.5%	14.8%
Other multiple significant trauma with CC	964	5.1%	1.1%	4.0%
Otitis media and upper respiratory illnesses with MCC	152	8.5%	2.3%	6.1%
Malignancy of hepatobiliary system or pancreas with CC	436	1.2%	1.9%	-0.7%
Skin graft and/or debridement excluding for skin ulcer or cellulitis with CC	577	9.5%	1.9%	7.5%
Minor small and large bowel procedure with CC	345	7.5%	0.8%	6.7%
Concussion without CC/MCC	090	13.1%	1.4%	11.5%
Thyroid, parathyroid and thyroglossal procedure with CC	626	16.7%	2.2%	14.1%
Pelvic evisceration, radical hysterectomy and radical vulvectomy with CC/MCC	734	9.5%	1.1%	8.4%
Cardiac valve and other major cardiothoracic procedure without cardiovascular catheterization with MCC	219	9.7%	-1.1%	10.9%
Major chest procedure without CC/MCC	165	6.0%	0.0%	6.0%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Other musculoskeletal system and connective tissue O.R. procedure without CC/MCC	517	8.6%	-0.4%	9.1%
Cholecystectomy except by laparoscope without common duct exploration with CC	415	9.8%	-1.1%	11.0%
Cranial and peripheral nerve disorders with MCC	073	4.6%	-0.2%	4.9%
Viral meningitis with CC/MCC	075	7.1%	0.6%	6.4%
Uncomplicated peptic ulcer without MCC	384	11.3%	1.3%	9.8%
Other digestive system O.R. procedure with MCC	356	12.3%	0.5%	11.7%
Other circulatory system O.R. procedure	264	8.3%	-1.9%	10.4%
Multiple sclerosis and cerebellar ataxia without CC/MCC	060	12.6%	0.0%	12.6%
Lower extremity and humerus procedure except hip, foot, femur with MCC	492	9.0%	1.0%	7.9%
Pancreas, liver and shunt procedure with MCC	405	2.9%	0.0%	2.8%
Lymphoma and non-acute leukemia with CC	841	8.3%	1.7%	6.5%
Other kidney and urinary tract diagnoses without CC/MCC	700	5.0%	0.6%	4.3%
Connective tissue disorders with CC	546	9.4%	-1.7%	11.3%
Viral illness with MCC	865	10.5%	1.0%	9.4%
Cirrhosis and alcoholic hepatitis with CC	433	4.7%	0.9%	3.8%
Other respiratory system diagnoses with MCC	205	7.4%	0.6%	6.7%
Other ear, nose, mouth and throat diagnoses without CC/MCC	156	5.5%	3.2%	2.3%
Other O.R. procedure for multiple significant trauma with CC	958	8.9%	1.0%	7.9%
Pathological fractures and musculoskeletal and connective tissue malignancy with CC	543	8.5%	0.8%	7.6%
Cardiac valve and other major cardiothoracic procedure without cardiovascular catheterization with CC	220	7.1%	-4.4%	12.0%
Other O.R. procedure for multiple significant trauma with MCC	957	8.4%	0.7%	7.7%
Other musculoskeletal system and connective tissue O.R. procedure with CC	516	11.4%	2.0%	9.2%
Other ear, nose, mouth and throat diagnoses with CC	155	5.4%	1.3%	4.0%
Permanent cardiac pacemaker implant without CC/MCC	244	6.4%	0.8%	5.6%
Peripheral/cranial nerve and other nervous system procedure with CC or peripheral neurostimulation	041	9.6%	-0.6%	10.3%
Adrenal and pituitary procedure with CC/MCC	614	7.1%	-2.4%	9.8%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Dental and oral diseases with CC	158	4.0%	0.6%	3.4%
Hip and femur procedure except major joint with MCC	480	8.4%	1.2%	7.1%
Uterine and adnexa procedure for ovarian or adnexal malignancy with CC	737	11.3%	0.1%	11.2%
Craniotomy with major device implantation/acute complex central nervous system primary diagnosis with MCC or chemotherapy implant	023	5.5%	0.7%	4.8%
Other disorders of the eye without MCC	125	12.4%	6.2%	5.9%
Percutaneous cardiovascular procedure without coronary artery stent with MCC	250	7.5%	1.0%	6.4%
Mastectomy for malignancy with CC/MCC	582	19.8%	5.8%	13.2%
Respiratory infections and inflammations without CC/MCC	179	12.9%	0.9%	11.9%
Connective tissue disorders without CC/MCC	547	12.9%	0.8%	12.0%
Digestive malignancy with MCC	374	8.2%	0.9%	7.2%
Inflammatory bowel disease with MCC	385	11.3%	0.5%	10.8%
Ventricular shunt procedure with CC	032	3.5%	-0.4%	3.9%
Septicemia or severe sepsis with mechanical ventilation 96 or more hours	870	8.6%	0.0%	8.5%
Pneumothorax without CC/MCC	201	6.3%	0.9%	5.3%
Traumatic injury without MCC	914	9.9%	3.8%	5.8%
Permanent cardiac pacemaker implant with CC	243	6.1%	-0.1%	6.2%
Infections, female reproductive system without CC/MCC	759	5.8%	1.8%	3.9%
Lymphoma and non-acute leukemia with MCC	840	10.3%	1.3%	8.9%
Connective tissue disorders with MCC	545	4.4%	0.7%	3.7%
Disorders of liver except malignancy, cirrhosis and alcoholic hepatitis without CC/MCC	443	11.7%	0.9%	10.6%
Appendectomy with complicated principal diagnosis with MCC	338	5.7%	0.4%	5.3%
Peritoneal adhesiolysis with MCC	335	10.6%	-0.3%	11.0%
Medical back problems with MCC	551	8.9%	-1.6%	10.7%
Other kidney and urinary tract procedure with MCC	673	18.8%	0.5%	18.1%
Infectious and parasitic diseases with O.R. procedure with CC	854	8.8%	-1.1%	10.0%
Vaginal delivery with O.R. procedure except sterilization and/or dilation and curettage	768	10.3%	-1.5%	11.9%
Spinal fusion except cervical with MCC	459	10.1%	0.1%	10.0%
Amputation of lower limb for endocrine, nutritional, and metabolic disorder with CC	617	4.4%	-0.4%	4.9%

Table A-2. Annual Growth in Price per Admission, Intensity Adjustment by Number of Procedures, 2008-2010, by DRG, Ranked by Admission Volume (3-Year Average, 2008 – 2010)

	DRG v28	Price per Admission	Procedures per Admission	Intensity Adjusted Price
Spinal fusion excluding cervical with spinal curvature/malignancy/infection or 9 or more fusion with CC	457	14.1%	-0.1%	14.1%
Acute leukemia without major O.R. procedure with MCC	834	4.9%	0.2%	4.7%
Breast biopsy, local excision and other breast procedure without CC/MCC	585	25.0%	6.5%	17.3%

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Notes: CC = complications and comorbidities; MCC = major complications and comorbidities; DRG v28 = diagnosis related group version 28.

Table A-3. Average Number of Procedures per Admission, DRG Weights, and Intensity Adjustment Estimates, by State, 2008 and 2010

State	Number of Procedures		DRG Weights		Average Annual Growth, 2008 – 2010		
	2008	2010	2008	2010	Procedures	DRG Weights	Combined
AK	5.87	6.00	1.09	1.13	1.1%	2.1%	3.2%
AL	6.65	6.84	1.32	1.32	1.5%	0.2%	1.6%
AR	7.54	7.60	1.28	1.27	0.4%	-0.4%	0.0%
AZ	7.22	7.15	1.22	1.19	-0.5%	-1.2%	-1.7%
CA	5.81	6.15	1.25	1.27	2.9%	0.9%	3.8%
CO	7.49	7.08	1.24	1.24	-2.8%	0.1%	-2.7%
CT	6.67	6.90	1.24	1.30	1.7%	2.4%	4.1%
DC	7.31	6.62	1.27	1.21	-4.8%	-2.6%	-7.3%
DE	6.03	5.78	1.28	1.26	-2.1%	-0.9%	-3.0%
FL	8.46	8.62	1.25	1.24	1.0%	-0.5%	0.5%
GA	7.06	7.30	1.31	1.32	1.7%	0.5%	2.3%
HI	7.06	7.26	1.35	1.35	1.4%	-0.2%	1.2%
IA	6.46	6.23	1.16	1.13	-1.8%	-1.4%	-3.2%
ID	5.61	5.64	1.11	1.17	0.3%	2.5%	2.8%
IL	9.52	8.71	1.21	1.20	-4.4%	-0.2%	-4.5%
IN	7.31	7.27	1.35	1.35	-0.3%	0.0%	-0.3%
KS	5.17	6.43	1.14	1.18	11.5%	1.9%	13.7%
KY	6.89	7.09	1.31	1.33	1.5%	0.7%	2.1%
LA	8.14	8.45	1.28	1.30	1.9%	0.8%	2.7%
MA	6.20	6.29	1.16	1.16	0.7%	-0.1%	0.5%
MD	7.49	6.84	1.34	1.28	-4.4%	-2.4%	-6.6%
ME	6.18	6.16	1.27	1.31	-0.2%	1.8%	1.6%
MI	7.08	6.82	1.35	1.29	-1.8%	-2.0%	-3.8%
MN	5.97	5.88	1.09	1.06	-0.8%	-1.1%	-1.9%
MO	7.45	7.62	1.27	1.26	1.1%	-0.4%	0.7%
MS	6.44	6.63	1.23	1.22	1.5%	-0.2%	1.2%
MT	6.76	6.34	1.10	1.11	-3.2%	0.4%	-2.8%
NC	6.86	7.16	1.21	1.22	2.1%	0.3%	2.4%
ND	6.06	5.85	1.14	1.07	-1.8%	-3.0%	-4.7%
NE	6.37	6.31	1.15	1.12	-0.4%	-1.3%	-1.8%
NH	6.78	6.82	1.23	1.29	0.3%	2.5%	2.8%
NJ	7.39	7.41	1.14	1.16	0.1%	1.2%	1.3%
NM	7.10	8.04	1.24	1.26	6.4%	0.6%	7.0%
NV	7.63	7.46	1.29	1.30	-1.1%	0.7%	-0.4%
NY	6.30	6.37	1.14	1.16	0.5%	0.9%	1.4%
OH	7.16	7.19	1.34	1.34	0.3%	0.1%	0.4%
OK	6.85	7.03	1.29	1.27	1.3%	-0.9%	0.4%
OR	5.11	5.45	1.12	1.10	3.3%	-0.6%	2.7%
PA	7.21	7.25	1.28	1.31	0.3%	1.3%	1.6%
RI	6.28	5.97	1.19	1.14	-2.5%	-2.1%	-4.5%
SC	7.55	7.51	1.32	1.34	-0.3%	0.6%	0.3%
SD	6.27	5.86	1.11	1.10	-3.3%	-0.6%	-3.8%
TN	7.49	7.53	1.30	1.34	0.3%	1.9%	2.2%
TX	9.25	9.71	1.23	1.23	2.4%	0.2%	2.7%
UT	5.11	5.09	0.97	0.99	-0.2%	1.0%	0.8%
VA	7.18	6.96	1.26	1.33	-1.6%	2.8%	1.2%
VT	6.51	6.34	1.33	1.26	-1.3%	-2.6%	-3.9%
WA	6.05	6.14	1.21	1.20	0.7%	-0.2%	0.5%
WI	7.07	7.32	1.21	1.23	1.8%	0.9%	2.7%
WV	7.19	6.93	1.37	1.36	-1.8%	-0.4%	-2.2%
WY	5.82	6.04	1.14	1.15	1.8%	0.3%	2.2%

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Table A-4. Average Allowed Charges per Admission and Intensity Adjusted Price Growth, by State

State	Allowed Charges per Admission 2008	Allowed Charges per Admission 2010	Average Annual Growth 2008 – 2010	Intensity Adjusted Price Growth (DRG weights and Number of Procedures Method) 2008 – 2010	Intensity Adjusted Price Growth (Risk Scores Method) 2008 – 2010
Alabama	\$10,070	\$11,524	7.0%	5.3%	4.0%
Arkansas	\$11,729	\$12,385	2.8%	2.8%	1.0%
California	\$19,272	\$22,555	8.2%	4.2%	4.8%
Colorado	\$15,034	\$16,818	5.8%	8.7%	4.4%
Florida	\$12,587	\$14,411	7.0%	6.5%	6.3%
Georgia	\$12,457	\$13,933	5.8%	3.4%	2.4%
Idaho	\$12,122	\$14,121	7.9%	5.0%	5.0%
Louisiana	\$11,761	\$13,605	7.6%	4.7%	4.1%
Massachusetts	\$11,928	\$13,736	7.3%	6.7%	4.9%
Michigan	\$11,097	\$12,669	6.8%	11.1%	7.2%
Minnesota	\$11,990	\$13,889	7.6%	9.7%	7.7%
Missouri	\$11,319	\$12,508	5.1%	4.3%	3.5%
North Carolina	\$11,729	\$13,596	7.7%	5.1%	6.2%
New Jersey	\$11,439	\$12,855	6.0%	4.7%	3.5%
New Mexico	\$11,061	\$12,573	6.6%	-0.4%	1.3%
Nevada	\$13,589	\$14,971	5.0%	5.4%	2.5%
New York	\$11,998	\$14,640	10.5%	8.9%	12.7%
Ohio	\$12,197	\$14,041	7.3%	6.9%	3.8%
Oklahoma	\$12,097	\$13,490	5.6%	5.2%	3.7%
Oregon	\$14,138	\$16,386	7.7%	4.9%	8.3%
Pennsylvania	\$12,111	\$14,241	8.4%	6.7%	4.9%
Tennessee	\$11,424	\$13,512	8.8%	6.4%	7.1%
Texas	\$12,298	\$14,696	9.3%	6.5%	7.1%
Utah	\$10,392	\$11,503	5.2%	4.4%	4.5%
Washington	\$15,261	\$17,540	7.2%	6.7%	5.4%
Wisconsin	\$14,731	\$16,542	6.0%	3.2%	1.9%

Source: Data from MarketScan for the commercially insured population under age 65; calculations by the authors.

Table A-5. Average Number of Procedures per Admission and DRG Weights by Metropolitan Statistical Area (MSA)

	Procedures 2008	Procedures 2010	2008 DRG Weight	2010 DRG Weight
Non-MSA	7.13	7.22	1.29	1.32
35644-New York-White Plains-Wayne, NY-NJ	6.03	6.04	1.10	1.09
31084-Los Angeles-Long Beach-Glendale, CA	5.75	6.33	1.22	1.24
26420-Houston-Sugar Land-Baytown, TX	9.44	10.19	1.24	1.22
19124-Dallas-Plano-Irving, TX	9.35	9.71	1.18	1.18
35004-Nassau-Suffolk, NY	7.12	7.24	1.18	1.18
12060-Atlanta-Sandy Springs-Marietta, GA	7.05	7.31	1.28	1.30
40140-Riverside-San Bernardino-Ontario, CA	5.48	5.62	1.23	1.25
42044-Santa Ana-Anaheim-Irvine, CA	5.96	6.17	1.22	1.27
40900-Sacramento-Arden-Arcade-Roseville, CA	5.37	5.63	1.29	1.30
23104-Fort Worth-Arlington, TX	9.13	9.22	1.24	1.23
36084-Oakland-Fremont-Hayward, CA	5.47	5.89	1.23	1.24
47644-Warren-Troy-Farmington Hills, MI	7.29	7.06	1.35	1.29
42644-Seattle-Bellevue-Everett, WA	6.16	6.21	1.23	1.20
26900-Indianapolis-Carmel, IN	7.32	7.23	1.35	1.31
41180-St. Louis, MO-IL	7.74	7.76	1.27	1.22
41740-San Diego-Carlsbad-San Marcos, CA	5.69	5.94	1.18	1.26
37964-Philadelphia, PA	6.14	6.25	1.15	1.19
13644-Bethesda-Rockville-Frederick, MD	7.16	6.64	1.29	1.17
10740-Albuquerque, NM	7.61	9.14	1.22	1.25
19740-Denver-Aurora-Broomfield, CO	8.06	7.32	1.27	1.25
41700-San Antonio-New Braunfels, TX	9.93	10.20	1.24	1.26
29820-Las Vegas-Paradise, NV	7.87	7.64	1.27	1.28
20764-Edison-New Brunswick, NJ	7.96	7.95	1.15	1.20
41940-San Jose-Sunnyvale-Santa Clara, CA	5.98	6.24	1.16	1.19
17140-Cincinnati-Middletown, OH-KY-IN	6.96	7.11	1.29	1.31
18140-Columbus, OH	6.67	6.59	1.25	1.22
41884-San Francisco-San Mateo-Redwood City, CA	5.48	6.08	1.21	1.22
36420-Oklahoma City, OK	6.58	6.66	1.30	1.26
16740-Charlotte-Gastonia-Rock Hill, NC-SC	7.15	7.68	1.11	1.13
33460-Minneapolis-St. Paul-Bloomington, MN-WI	5.89	5.87	1.06	1.03
28140-Kansas City, MO-KS	6.42	6.91	1.11	1.15
19804-Detroit-Livonia-Dearborn, MI	7.45	7.12	1.41	1.35
38900-Portland-Vancouver-Hillsboro, OR-WA	5.07	5.49	1.04	1.05
14860-Bridgeport-Stamford-Norwalk, CT	6.47	6.80	1.18	1.21
17900-Columbia, SC	7.69	7.49	1.29	1.31
14484-Boston-Quincy, MA	5.96	6.03	1.12	1.12
45300-Tampa-St. Petersburg-Clearwater, FL	8.83	8.63	1.29	1.29
33124-Miami-Miami Beach-Kendall, FL	9.74	10.38	1.14	1.14
17460-Cleveland-Elyria-Mentor, OH	7.63	7.52	1.35	1.34
15764-Cambridge-Newton-Framingham, MA	5.72	5.87	1.08	1.07
33340-Milwaukee-Waukesha-West Allis, WI	7.44	7.84	1.18	1.22
37100-Oxnard-Thousand Oaks-Ventura, CA	6.13	6.63	1.31	1.35
38300-Pittsburgh, PA	7.14	7.23	1.30	1.33
16700-Charleston-North Charleston-Summerville, SC	7.88	7.86	1.27	1.28
32820-Memphis, TN-MS-AR	8.74	8.80	1.22	1.31
24860-Greenville-Mauldin-Easley, SC	6.82	6.91	1.31	1.32

Table A-5. Average Number of Procedures per Admission and DRG Weights by Metropolitan Statistical Area (MSA)

	Procedures 2008	Procedures 2010	2008 DRG Weight	2010 DRG Weight
34980-Nashville-Davidson-Murfreesboro-Franklin, TN	7.40	7.25	1.31	1.33
46140-Tulsa, OK	7.15	7.65	1.25	1.23
31140-Louisville-Jefferson County, KY-IN	6.85	7.49	1.38	1.41
36740-Orlando-Kissimmee-Sanford, FL	8.27	8.19	1.19	1.16
22744-Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	8.54	9.05	1.19	1.20
23844-Gary, IN	8.90	8.11	1.37	1.34
45780-Toledo, OH	7.38	7.63	1.31	1.36
16300-Cedar Rapids, IA	6.12	6.20	1.12	1.11
48864-Wilmington, DE-MD-NJ	6.40	5.97	1.28	1.22
19380-Dayton, OH	7.34	7.45	1.43	1.42
39300-Providence-New Bedford-Fall River, RI-MA	6.30	6.16	1.18	1.16
15804-Camden, NJ	6.92	6.83	1.23	1.19
40060-Richmond, VA	6.62	7.00	1.22	1.34
10580-Albany-Schenectady-Troy, NY	6.08	6.01	1.15	1.18
39100-Poughkeepsie-Newburgh-Middletown, NY	7.02	6.73	1.14	1.20
13820-Birmingham-Hoover, AL	6.60	7.00	1.32	1.31
37900-Peoria, IL	9.87	9.51	1.28	1.22
41620-Salt Lake City, UT	5.06	5.03	0.99	1.01
19340-Davenport-Moline-Rock Island, IA-IL	6.54	6.91	1.19	1.29
21340-El Paso, TX	10.21	10.30	1.20	1.22
12260-Augusta-Richmond County, GA-SC	7.47	7.47	1.46	1.40
48424-West Palm Beach-Boca Raton-Boynton Beach, FL	8.38	8.88	1.19	1.23
36540-Omaha-Council Bluffs, NE-IA	6.92	6.64	1.23	1.15
40484-Rockingham County-Strafford County, NH	6.48	6.80	1.20	1.27
47260-Virginia Beach-Norfolk-Newport News, VA-NC	7.15	7.07	1.34	1.38
44700-Stockton, CA	5.47	5.88	1.20	1.24
45104-Tacoma, WA	6.18	6.25	1.23	1.25
10900-Allentown-Bethlehem-Easton, PA-NJ	7.38	7.48	1.28	1.29
49660-Youngstown-Warren-Boardman, OH-PA	7.91	7.96	1.46	1.47
42100-Santa Cruz-Watsonville, CA	6.22	6.31	1.30	1.30
37764-Peabody, MA	6.41	6.23	1.22	1.16
11460-Ann Arbor, MI	6.16	5.88	1.10	1.03
40420-Rockford, IL	7.87	9.88	1.28	1.25
28940-Knoxville, TN	6.68	6.75	1.26	1.35
42020-San Luis Obispo-Paso Robles, CA	6.45	6.16	1.37	1.34
17820-Colorado Springs, CO	7.34	7.09	1.21	1.28
24340-Grand Rapids-Wyoming, MI	6.29	6.13	1.22	1.17
42060-Santa Barbara-Santa Maria-Goleta, CA	6.23	6.04	1.34	1.34
10420-Akron, OH	7.48	7.30	1.38	1.37
23060-Fort Wayne, IN	7.22	7.08	1.26	1.25
40380-Rochester, NY	5.50	5.55	1.26	1.22
29740-Las Cruces, NM	6.67	6.88	1.31	1.27
42220-Santa Rosa-Petaluma, CA	5.98	6.69	1.36	1.39
49340-Worcester, MA	6.63	6.40	1.22	1.23
33700-Modesto, CA	6.39	6.58	1.25	1.22

Table A-5. Average Number of Procedures per Admission and DRG Weights by Metropolitan Statistical Area (MSA)

	Procedures 2008	Procedures 2010	2008 DRG Weight	2010 DRG Weight
35380-New Orleans-Metairie-Kenner, LA	7.86	8.04	1.31	1.34
42140-Santa Fe, NM	6.83	7.25	1.26	1.35
22420-Flint, MI	7.43	7.38	1.43	1.44
49620-York-Hanover, PA	7.21	7.08	1.34	1.28
39900-Reno-Sparks, NV	6.49	6.43	1.29	1.35
46060-Tucson, AZ	6.57	6.55	1.27	1.21
44140-Springfield, MA	7.28	8.10	1.31	1.35
48620-Wichita, KS	6.71	6.28	1.26	1.16
17780-College Station-Bryan, TX	9.52	10.09	1.10	1.12
30460-Lexington-Fayette, KY	6.61	6.64	1.21	1.25
47380-Waco, TX	8.25	8.00	1.21	1.22
22500-Florence, SC	7.51	6.90	1.28	1.31
45060-Syracuse, NY	6.52	6.93	1.18	1.24
15380-Buffalo-Niagara Falls, NY	6.67	6.97	1.28	1.33
47940-Waterloo-Cedar Falls, IA	6.77	6.25	1.19	1.12
29540-Lancaster, PA	7.34	7.58	1.23	1.30
14260-Boise City-Nampa, ID	5.69	5.72	1.08	1.18
29460-Lakeland-Winter Haven, FL	8.34	8.48	1.22	1.25
12940-Baton Rouge, LA	8.50	8.39	1.25	1.28
17020-Chico, CA	7.21	7.45	1.41	1.40
25180-Hagerstown-Martinsburg, MD-WV	7.21	6.86	1.38	1.28
30980-Longview, TX	9.68	10.05	1.34	1.36
36260-Ogden-Clearfield, UT	5.07	4.99	0.94	0.94
39740-Reading, PA	6.56	6.88	1.20	1.20
24660-Greensboro-High Point, NC	6.14	6.32	1.23	1.21
22660-Fort Collins-Loveland, CO	6.48	6.44	1.15	1.11
14060-Bloomington-Normal, IL	9.75	9.73	1.24	1.19
25420-Harrisburg-Carlisle, PA	6.70	7.03	1.20	1.29

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Table A-6. Average Annual Growth in Number of Procedures per Admission and DRG Weights, by Metropolitan Statistical Area (MSA), 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010		
	Number of Procedures	DRG Weights	Combined
Non-MSA	0.6%	1.1%	1.7%
35644-New York-White Plains-Wayne, NY-NJ	0.1%	0.0%	0.1%
31084-Los Angeles-Long Beach-Glendale, CA	5.0%	0.9%	5.9%
26420-Houston-Sugar Land-Baytown, TX	3.9%	-0.8%	3.0%
19124-Dallas-Plano-Irving, TX	1.9%	0.2%	2.1%
35004-Nassau-Suffolk, NY	0.8%	0.2%	1.0%
12060-Atlanta-Sandy Springs-Marietta, GA	1.8%	0.6%	2.4%
40140-Riverside-San Bernardino-Ontario, CA	1.2%	0.7%	2.0%
42044-Santa Ana-Anaheim-Irvine, CA	1.7%	2.0%	3.8%
40900-Sacramento-Arden-Arcade-Roseville, CA	2.3%	0.6%	2.9%
23104-Fort Worth-Arlington, TX	0.5%	-0.4%	0.1%
36084-Oakland-Fremont-Hayward, CA	3.7%	0.6%	4.3%
47644-Warren-Troy-Farmington Hills, MI	-1.6%	-2.2%	-3.8%
42644-Seattle-Bellevue-Everett, WA	0.5%	-1.4%	-0.9%
26900-Indianapolis-Carmel, IN	-0.6%	-1.5%	-2.1%
41180-St. Louis, MO-IL	0.2%	-1.8%	-1.6%
41740-San Diego-Carlsbad-San Marcos, CA	2.2%	3.2%	5.5%
37964-Philadelphia, PA	0.9%	1.8%	2.7%
13644-Bethesda-Rockville-Frederick, MD	-3.7%	-4.7%	-8.3%
10740-Albuquerque, NM	9.6%	1.2%	10.9%
19740-Denver-Aurora-Broomfield, CO	-4.7%	-0.6%	-5.3%
41700-San Antonio-New Braunfels, TX	1.4%	0.8%	2.1%
29820-Las Vegas-Paradise, NV	-1.4%	0.2%	-1.2%
20764-Edison-New Brunswick, NJ	0.0%	1.9%	1.9%
41940-San Jose-Sunnyvale-Santa Clara, CA	2.1%	1.1%	3.3%
17140-Cincinnati-Middletown, OH-KY-IN	1.1%	0.9%	2.0%
18140-Columbus, OH	-0.6%	-1.3%	-1.9%
41884-San Francisco-San Mateo-Redwood City, CA	5.3%	0.6%	5.9%
36420-Oklahoma City, OK	0.6%	-1.3%	-0.7%
16740-Charlotte-Gastonia-Rock Hill, NC-SC	3.6%	1.0%	4.7%
33460-Minneapolis-St. Paul-Bloomington, MN-WI	-0.1%	-1.1%	-1.3%
28140-Kansas City, MO-KS	3.8%	1.8%	5.6%
19804-Detroit-Livonia-Dearborn, MI	-2.2%	-2.2%	-4.4%
38900-Portland-Vancouver-Hillsboro, OR-WA	4.0%	0.7%	4.7%
14860-Bridgeport-Stamford-Norwalk, CT	2.5%	1.3%	3.8%
17900-Columbia, SC	-1.3%	0.7%	-0.6%
14484-Boston-Quincy, MA	0.6%	0.3%	0.8%
45300-Tampa-St. Petersburg-Clearwater, FL	-1.1%	-0.1%	-1.3%
33124-Miami-Miami Beach-Kendall, FL	3.2%	-0.1%	3.1%
17460-Cleveland-Elyria-Mentor, OH	-0.7%	-0.3%	-1.0%
15764-Cambridge-Newton-Framingham, MA	1.3%	-0.3%	1.0%
33340-Milwaukee-Waukesha-West Allis, WI	2.7%	1.6%	4.3%
37100-Oxnard-Thousand Oaks-Ventura, CA	4.0%	1.7%	5.7%
38300-Pittsburgh, PA	0.6%	1.1%	1.8%
16700-Charleston-North Charleston-Summerville, SC	-0.1%	0.4%	0.3%
32820-Memphis, TN-MS-AR	0.4%	3.6%	3.9%
24860-Greenville-Mauldin-Easley, SC	0.7%	0.6%	1.2%

Table A-6. Average Annual Growth in Number of Procedures per Admission and DRG Weights, by Metropolitan Statistical Area (MSA), 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010		
	Number of Procedures	DRG Weights	Combined
34980-Nashville-Davidson-Murfreesboro-Franklin, TN	-1.0%	0.9%	-0.1%
46140-Tulsa, OK	3.4%	-0.9%	2.5%
31140-Louisville-Jefferson County, KY-IN	4.6%	0.8%	5.4%
36740-Orlando-Kissimmee-Sanford, FL	-0.4%	-1.2%	-1.7%
22744-Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	2.9%	0.2%	3.2%
23844-Gary, IN	-4.6%	-0.9%	-5.4%
45780-Toledo, OH	1.7%	2.0%	3.7%
16300-Cedar Rapids, IA	0.6%	-0.4%	0.2%
48864-Wilmington, DE-MD-NJ	-3.4%	-2.4%	-5.8%
19380-Dayton, OH	0.8%	-0.3%	0.4%
39300-Providence-New Bedford-Fall River, RI-MA	-1.1%	-1.0%	-2.1%
15804-Camden, NJ	-0.7%	-2.0%	-2.6%
40060-Richmond, VA	2.8%	4.9%	7.9%
10580-Albany-Schenectady-Troy, NY	-0.5%	1.0%	0.4%
39100-Poughkeepsie-Newburgh-Middletown, NY	-2.1%	2.7%	0.6%
13820-Birmingham-Hoover, AL	3.0%	-0.5%	2.5%
37900-Peoria, IL	-1.8%	-2.6%	-4.4%
41620-Salt Lake City, UT	-0.3%	1.1%	0.8%
19340-Davenport-Moline-Rock Island, IA-IL	2.8%	4.2%	7.1%
21340-El Paso, TX	0.4%	0.7%	1.2%
12260-Augusta-Richmond County, GA-SC	0.0%	-2.1%	-2.1%
48424-West Palm Beach-Boca Raton-Boynton Beach, FL	2.9%	1.5%	4.4%
36540-Omaha-Council Bluffs, NE-IA	-2.0%	-3.3%	-5.3%
40484-Rockingham County-Strafford County, NH	2.4%	3.0%	5.5%
47260-Virginia Beach-Norfolk-Newport News, VA-NC	-0.6%	1.6%	1.0%
44700-Stockton, CA	3.6%	1.9%	5.6%
45104-Tacoma, WA	0.6%	0.8%	1.4%
10900-Allentown-Bethlehem-Easton, PA-NJ	0.7%	0.5%	1.2%
49660-Youngstown-Warren-Boardman, OH-PA	0.3%	0.5%	0.8%
42100-Santa Cruz-Watsonville, CA	0.7%	0.2%	0.9%
37764-Peabody, MA	-1.4%	-2.1%	-3.5%
11460-Ann Arbor, MI	-2.3%	-3.6%	-5.9%
40420-Rockford, IL	12.0%	-1.1%	10.8%
28940-Knoxville, TN	0.5%	3.5%	4.0%
42020-San Luis Obispo-Paso Robles, CA	-2.3%	-1.0%	-3.3%
17820-Colorado Springs, CO	-1.7%	3.1%	1.4%
24340-Grand Rapids-Wyoming, MI	-1.3%	-1.9%	-3.2%
42060-Santa Barbara-Santa Maria-Goleta, CA	-1.5%	-0.2%	-1.7%
10420-Akron, OH	-1.2%	-0.4%	-1.6%
23060-Fort Wayne, IN	-1.0%	-0.2%	-1.2%
40380-Rochester, NY	0.5%	-1.4%	-0.9%
29740-Las Cruces, NM	1.6%	-1.4%	0.2%
42220-Santa Rosa-Petaluma, CA	5.8%	1.2%	7.0%
49340-Worcester, MA	-1.8%	0.7%	-1.1%
33700-Modesto, CA	1.4%	-1.3%	0.2%
35380-New Orleans-Metairie-Kenner, LA	1.2%	1.2%	2.5%
42140-Santa Fe, NM	3.1%	3.5%	6.7%

Table A-6. Average Annual Growth in Number of Procedures per Admission and DRG Weights, by Metropolitan Statistical Area (MSA), 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010		
	Number of Procedures	DRG Weights	Combined
22420-Flint, MI	-0.4%	0.4%	0.0%
49620-York-Hanover, PA	-0.9%	-2.3%	-3.2%
39900-Reno-Sparks, NV	-0.4%	2.5%	2.0%
46060-Tucson, AZ	-0.1%	-2.5%	-2.6%
44140-Springfield, MA	5.4%	1.6%	7.1%
48620-Wichita, KS	-3.2%	-4.3%	-7.4%
17780-College Station-Bryan, TX	3.0%	1.0%	4.0%
30460-Lexington-Fayette, KY	0.3%	1.7%	1.9%
47380-Waco, TX	-1.6%	0.4%	-1.2%
22500-Florence, SC	-4.1%	1.1%	-3.1%
45060-Syracuse, NY	3.1%	2.4%	5.5%
15380-Buffalo-Niagara Falls, NY	2.2%	2.3%	4.6%
47940-Waterloo-Cedar Falls, IA	-3.9%	-3.0%	-6.8%
29540-Lancaster, PA	1.6%	3.1%	4.7%
14260-Boise City-Nampa, ID	0.3%	4.4%	4.7%
29460-Lakeland-Winter Haven, FL	0.8%	1.2%	2.1%
12940-Baton Rouge, LA	-0.7%	1.4%	0.7%
17020-Chico, CA	1.6%	-0.5%	1.1%
25180-Hagerstown-Martinsburg, MD-WV	-2.5%	-3.9%	-6.2%
30980-Longview, TX	1.9%	0.9%	2.8%
36260-Ogden-Clearfield, UT	-0.8%	-0.2%	-1.0%
39740-Reading, PA	2.4%	-0.2%	2.2%
24660-Greensboro-High Point, NC	1.5%	-0.8%	0.6%
22660-Fort Collins-Loveland, CO	-0.3%	-1.9%	-2.2%
14060-Bloomington-Normal, IL	-0.1%	-2.1%	-2.2%
25420-Harrisburg-Carlisle, PA	2.5%	3.8%	6.3%

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Table A-7. Average Age and Risk Measures by Metropolitan Statistical Area (MSA)

	Average Age		Average Risk Score		Average Annual Growth, 2008 – 2010	
	2008	2010	2008	2010	Age	Risk Score
Non-MSA	37.66	37.37	0.64	0.68	-0.4%	2.7%
35644-New York-White Plains-Wayne, NY-NJ	34.50	32.99	0.68	0.63	-2.2%	-3.9%
31084-Los Angeles-Long Beach-Glendale, CA	37.96	37.35	0.61	0.65	-0.8%	2.7%
26420-Houston-Sugar Land-Baytown, TX	34.53	33.23	0.62	0.63	-1.9%	1.0%
19124-Dallas-Plano-Irving, TX	32.62	31.87	0.57	0.59	-1.2%	1.6%
35004-Nassau-Suffolk, NY	35.93	35.16	0.68	0.67	-1.1%	-0.9%
12060-Atlanta-Sandy Springs-Marietta, GA	36.02	36.07	0.63	0.67	0.1%	3.2%
40140-Riverside-San Bernardino-Ontario, CA	37.16	37.18	0.64	0.67	0.0%	2.0%
42044-Santa Ana-Anaheim-Irvine, CA	37.66	37.63	0.59	0.64	0.0%	4.3%
40900-Sacramento-Arden-Arcade-Roseville, CA	38.73	38.72	0.67	0.72	0.0%	3.8%
23104-Fort Worth-Arlington, TX	34.36	33.39	0.61	0.62	-1.4%	1.1%
36084-Oakland-Fremont-Hayward, CA	37.66	36.70	0.64	0.67	-1.3%	2.2%
47644-Warren-Troy-Farmington Hills, MI	38.99	37.31	0.73	0.73	-2.2%	-0.1%
42644-Seattle-Bellevue-Everett, WA	36.25	36.04	0.53	0.54	-0.3%	1.4%
26900-Indianapolis-Carmel, IN	36.16	35.21	0.70	0.72	-1.3%	1.8%
41180-St. Louis, MO-IL	37.47	35.62	0.65	0.65	-2.5%	0.6%
41740-San Diego-Carlsbad-San Marcos, CA	34.53	36.67	0.56	0.62	3.1%	5.4%
37964-Philadelphia, PA	36.43	36.85	0.56	0.63	0.6%	6.4%
13644-Bethesda-Rockville-Frederick, MD	37.80	33.91	0.72	0.60	-5.3%	-8.9%
10740-Albuquerque, NM	33.84	34.68	0.62	0.68	1.2%	5.3%
19740-Denver-Aurora-Broomfield, CO	33.14	31.74	0.58	0.60	-2.1%	1.7%
41700-San Antonio-New Braunfels, TX	34.62	34.42	0.63	0.66	-0.3%	2.4%
29820-Las Vegas-Paradise, NV	36.07	35.15	0.62	0.64	-1.3%	1.5%
20764-Edison-New Brunswick, NJ	34.44	34.51	0.60	0.65	0.1%	4.1%
41940-San Jose-Sunnyvale-Santa Clara, CA	35.08	34.76	0.55	0.59	-0.5%	3.5%
17140-Cincinnati-Middletown, OH-KY-IN	36.84	37.19	0.65	0.70	0.5%	4.5%
18140-Columbus, OH	34.88	33.06	0.61	0.62	-2.6%	1.0%
41884-San Francisco-San Mateo-Redwood City, CA	37.73	37.09	0.60	0.63	-0.9%	2.6%
36420-Oklahoma City, OK	35.70	34.84	0.63	0.65	-1.2%	1.6%
16740-Charlotte-Gastonia-Rock Hill, NC-SC	30.56	30.89	0.51	0.55	0.5%	3.5%
33460-Minneapolis-St. Paul-Bloomington, MN-WI	30.18	28.89	0.50	0.50	-2.2%	0.3%
28140-Kansas City, MO-KS	33.22	33.01	0.53	0.57	-0.3%	3.7%
19804-Detroit-Livonia-Dearborn, MI	42.21	40.10	0.85	0.83	-2.5%	-1.3%
38900-Portland-Vancouver-Hillsboro, OR-WA	30.36	29.95	0.46	0.49	-0.7%	3.1%
14860-Bridgeport-Stamford-Norwalk, CT	36.10	35.52	0.59	0.63	-0.8%	3.1%
17900-Columbia, SC	36.16	36.61	0.63	0.69	0.6%	4.9%
14484-Boston-Quincy, MA	32.52	33.18	0.57	0.59	1.0%	2.0%
45300-Tampa-St. Petersburg-Clearwater, FL	37.08	36.52	0.66	0.67	-0.8%	0.8%
33124-Miami-Miami Beach-Kendall, FL	33.42	33.57	0.59	0.59	0.2%	0.0%
17460-Cleveland-Elyria-Mentor, OH	40.22	39.03	0.77	0.83	-1.5%	4.1%
15764-Cambridge-Newton-Framingham, MA	31.59	31.62	0.52	0.56	0.0%	3.2%
33340-Milwaukee-Waukesha-West Allis, WI	33.65	32.56	0.55	0.61	-1.6%	5.4%
37100-Oxnard-Thousand Oaks-Ventura, CA	38.40	39.08	0.60	0.64	0.9%	3.0%
38300-Pittsburgh, PA	37.22	37.60	0.63	0.67	0.5%	3.7%
16700-Charleston-North Charleston-Summerville, SC	35.73	36.35	0.63	0.67	0.9%	3.3%
32820-Memphis, TN-MS-AR	35.03	35.73	0.63	0.68	1.0%	4.1%
24860-Greenville-Mauldin-Easley, SC	36.47	36.15	0.63	0.66	-0.4%	2.7%

Table A-7. Average Age and Risk Measures by Metropolitan Statistical Area (MSA)

	Average Age		Average Risk Score		Average Annual Growth, 2008 – 2010	
	2008	2010	2008	2010	Age	Risk Score
34980-Nashville-Davidson-Murfreesboro-Franklin, TN	37.17	36.48	0.62	0.61	-0.9%	-0.6%
46140-Tulsa, OK	34.56	34.21	0.60	0.63	-0.5%	2.1%
31140-Louisville-Jefferson County, KY-IN	38.57	39.29	0.71	0.75	0.9%	2.8%
36740-Orlando-Kissimmee-Sanford, FL	34.82	34.61	0.59	0.59	-0.3%	-0.1%
22744-Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	35.97	35.40	0.62	0.63	-0.8%	0.4%
23844-Gary, IN	40.91	39.44	0.78	0.78	-1.8%	0.3%
45780-Toledo, OH	37.18	37.94	0.71	0.78	1.0%	5.3%
16300-Cedar Rapids, IA	31.07	30.69	0.54	0.57	-0.6%	2.5%
48864-Wilmington, DE-MD-NJ	35.99	35.13	0.63	0.63	-1.2%	0.3%
19380-Dayton, OH	39.66	38.29	0.77	0.83	-1.7%	4.1%
39300-Providence-New Bedford-Fall River, RI-MA	35.11	35.03	0.59	0.60	-0.1%	1.1%
15804-Camden, NJ	36.39	35.53	0.61	0.61	-1.2%	-0.7%
40060-Richmond, VA	34.46	38.00	0.62	0.79	5.0%	12.5%
10580-Albany-Schenectady-Troy, NY	34.71	34.07	0.62	0.65	-0.9%	2.5%
39100-Poughkeepsie-Newburgh-Middletown, NY	34.00	34.75	0.63	0.68	1.1%	3.8%
13820-Birmingham-Hoover, AL	39.41	39.38	0.62	0.65	0.0%	2.2%
37900-Peoria, IL	36.54	35.09	0.61	0.62	-2.0%	0.9%
41620-Salt Lake City, UT	25.72	27.21	0.44	0.46	2.9%	1.8%
19340-Davenport-Moline-Rock Island, IA-IL	35.04	36.00	0.61	0.67	1.4%	5.2%
21340-El Paso, TX	34.15	34.08	0.59	0.64	-0.1%	4.2%
12260-Augusta-Richmond County, GA-SC	40.00	39.83	0.69	0.73	-0.2%	2.6%
48424-West Palm Beach-Boca Raton-Boynton Beach, FL	35.00	35.10	0.61	0.66	0.1%	3.7%
36540-Omaha-Council Bluffs, NE-IA	33.82	31.78	0.61	0.57	-3.1%	-3.5%
40484-Rockingham County-Strafford County, NH	37.21	38.39	0.66	0.69	1.6%	1.8%
47260-Virginia Beach-Norfolk-Newport News, VA-NC	38.73	40.11	0.66	0.74	1.8%	5.6%
44700-Stockton, CA	37.21	37.93	0.59	0.67	1.0%	6.3%
45104-Tacoma, WA	36.88	36.98	0.55	0.56	0.1%	1.4%
10900-Allentown-Bethlehem-Easton, PA-NJ	35.35	37.67	0.63	0.69	3.2%	4.6%
49660-Youngstown-Warren-Boardman, OH-PA	43.19	43.86	0.84	0.93	0.8%	5.2%
42100-Santa Cruz-Watsonville, CA	39.91	39.40	0.65	0.68	-0.6%	2.5%
37764-Peabody, MA	37.59	36.53	0.63	0.65	-1.4%	1.4%
11460-Ann Arbor, MI	32.94	30.40	0.54	0.50	-3.9%	-4.3%
40420-Rockford, IL	37.08	35.64	0.65	0.67	-2.0%	1.3%
28940-Knoxville, TN	37.02	38.57	0.61	0.64	2.1%	2.2%
42020-San Luis Obispo-Paso Robles, CA	41.68	41.27	0.66	0.68	-0.5%	1.8%
17820-Colorado Springs, CO	33.10	32.53	0.57	0.62	-0.9%	4.7%
24340-Grand Rapids-Wyoming, MI	34.85	33.00	0.55	0.58	-2.7%	3.0%
42060-Santa Barbara-Santa Maria-Goleta, CA	38.52	39.00	0.64	0.71	0.6%	5.3%
10420-Akron, OH	40.27	39.00	0.76	0.77	-1.6%	1.0%
23060-Fort Wayne, IN	35.64	35.19	0.61	0.63	-0.6%	1.5%
40380-Rochester, NY	37.23	36.36	0.68	0.67	-1.2%	-0.6%
29740-Las Cruces, NM	35.09	34.28	0.63	0.71	-1.2%	6.0%
42220-Santa Rosa-Petaluma, CA	40.93	41.17	0.75	0.76	0.3%	0.3%
49340-Worcester, MA	34.65	35.03	0.66	0.68	0.5%	1.5%
33700-Modesto, CA	37.45	37.34	0.58	0.63	-0.1%	4.2%
35380-New Orleans-Metairie-Kenner, LA	37.24	38.26	0.63	0.69	1.4%	4.8%

Table A-7. Average Age and Risk Measures by Metropolitan Statistical Area (MSA)

	Average Age		Average Risk Score		Average Annual Growth, 2008 – 2010	
	2008	2010	2008	2010	Age	Risk Score
42140-Santa Fe, NM	38.01	37.91	0.67	0.77	-0.1%	7.0%
22420-Flint, MI	44.05	42.67	0.83	0.92	-1.6%	5.3%
49620-York-Hanover, PA	37.34	37.13	0.68	0.71	-0.3%	2.1%
39900-Reno-Sparks, NV	37.09	38.01	0.66	0.72	1.2%	4.5%
46060-Tucson, AZ	35.50	33.76	0.61	0.58	-2.5%	-2.3%
44140-Springfield, MA	38.70	39.27	0.76	0.81	0.7%	3.6%
48620-Wichita, KS	34.93	32.43	0.57	0.59	-3.6%	1.5%
17780-College Station-Bryan, TX	31.71	31.06	0.48	0.54	-1.0%	5.9%
30460-Lexington-Fayette, KY	33.75	34.52	0.62	0.68	1.1%	4.6%
47380-Waco, TX	32.95	32.78	0.52	0.59	-0.3%	6.5%
22500-Florence, SC	39.00	39.45	0.63	0.66	0.6%	2.6%
45060-Syracuse, NY	34.64	34.62	0.63	0.65	0.0%	1.0%
15380-Buffalo-Niagara Falls, NY	39.41	38.95	0.73	0.79	-0.6%	3.8%
47940-Waterloo-Cedar Falls, IA	33.34	31.52	0.58	0.51	-2.8%	-6.2%
29540-Lancaster, PA	35.56	35.98	0.58	0.66	0.6%	6.5%
14260-Boise City-Nampa, ID	29.44	30.18	0.49	0.53	1.2%	4.6%
29460-Lakeland-Winter Haven, FL	35.07	36.50	0.60	0.66	2.0%	5.2%
12940-Baton Rouge, LA	35.59	34.95	0.56	0.59	-0.9%	2.7%
17020-Chico, CA	42.38	42.71	0.70	0.76	0.4%	4.7%
25180-Hagerstown-Martinsburg, MD-WV	39.30	37.14	0.73	0.72	-2.8%	-1.2%
30980-Longview, TX	37.05	35.93	0.65	0.72	-1.5%	4.8%
36260-Ogden-Clearfield, UT	24.18	24.73	0.41	0.40	1.1%	-0.2%
39740-Reading, PA	34.52	34.90	0.55	0.63	0.5%	7.0%
24660-Greensboro-High Point, NC	33.88	33.45	0.57	0.61	-0.6%	3.1%
22660-Fort Collins-Loveland, CO	31.60	31.73	0.52	0.56	0.2%	3.1%
14060-Bloomington-Normal, IL	35.88	34.16	0.59	0.61	-2.4%	1.6%
25420-Harrisburg-Carlisle, PA	34.33	35.08	0.56	0.67	1.1%	8.8%

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.

Table A-8. Average Annual Growth in Allowed Charges per Admission by Metropolitan Statistical Area (MSA), Adjusted for Procedure and DRG Weights or for Risk Scores, 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010				
	Allowed Charges per Admission, Unadjusted	Combined DRG Weight and Procedures per Admission	Price Adjusted for Procedures and DRG Weight	Average Risk Score	Price Adjusted for Risk Score
Non-MSA	8.7%	1.7%	6.8%	2.7%	5.8%
35644-New York-White Plains-Wayne, NY-NJ	10.7%	0.1%	10.6%	-3.9%	15.2%
31084-Los Angeles-Long Beach-Glendale, CA	9.4%	5.9%	3.3%	2.7%	6.5%
26420-Houston-Sugar Land-Baytown, TX	3.9%	3.0%	0.8%	1.0%	2.8%
19124-Dallas-Plano-Irving, TX	8.5%	2.1%	6.3%	1.6%	6.8%
35004-Nassau-Suffolk, NY	11.0%	1.0%	9.8%	-0.9%	12.0%
12060-Atlanta-Sandy Springs-Marietta, GA	6.0%	2.4%	3.6%	3.2%	2.8%
40140-Riverside-San Bernardino-Ontario, CA	7.1%	2.0%	5.0%	2.0%	5.0%
42044-Santa Ana-Anaheim-Irvine, CA	7.7%	3.8%	3.8%	4.3%	3.3%
23104-Fort Worth-Arlington, TX	10.3%	0.1%	10.2%	1.1%	9.1%
36084-Oakland-Fremont-Hayward, CA	5.9%	4.3%	1.5%	2.2%	3.7%
47644-Warren-Troy-Farmington Hills, MI	7.4%	-3.8%	11.7%	-0.1%	7.5%
42644-Seattle-Bellevue-Everett, WA	6.3%	-0.9%	7.3%	1.4%	4.8%
41180-St. Louis, MO-IL	3.8%	-1.6%	5.5%	0.6%	3.1%
41740-San Diego-Carlsbad-San Marcos, CA	7.1%	5.5%	1.5%	5.4%	1.6%
37964-Philadelphia, PA	7.6%	2.7%	4.7%	6.4%	1.1%
10740-Albuquerque, NM	5.3%	10.9%	-5.0%	5.3%	0.1%
19740-Denver-Aurora-Broomfield, CO	6.1%	-5.3%	12.0%	1.7%	4.3%
41700-San Antonio-New Braunfels, TX	10.8%	2.1%	8.5%	2.4%	8.3%
29820-Las Vegas-Paradise, NV	4.5%	-1.2%	5.8%	1.5%	3.0%
20764-Edison-New Brunswick, NJ	6.3%	1.9%	4.3%	4.1%	2.1%
41940-San Jose-Sunnyvale-Santa Clara, CA	8.9%	3.3%	5.4%	3.5%	5.2%
18140-Columbus, OH	6.6%	-1.9%	8.6%	1.0%	5.5%
41884-San Francisco-San Mateo-Redwood City, CA	5.2%	5.9%	-0.6%	2.6%	2.6%
36420-Oklahoma City, OK	6.5%	-0.7%	7.2%	1.6%	4.8%
16740-Charlotte-Gastonia-Rock Hill, NC-SC	10.2%	4.7%	5.2%	3.5%	6.4%
33460-Minneapolis-St. Paul-Bloomington, MN-WI	6.9%	-1.3%	8.3%	0.3%	6.5%
28140-Kansas City, MO-KS	11.8%	5.6%	5.8%	3.7%	7.8%

Table A-8. Average Annual Growth in Allowed Charges per Admission by Metropolitan Statistical Area (MSA), Adjusted for Procedure and DRG Weights or for Risk Scores, 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010				
	Allowed Charges per Admission, Unadjusted	Combined DRG Weight and Procedures per Admission	Price Adjusted for Procedures and DRG Weight	Average Risk Score	Price Adjusted for Risk Score
19804-Detroit-Livonia-Dearborn, MI	10.4%	-4.4%	15.5%	-1.3%	11.9%
38900-Portland-Vancouver-Hillsboro, OR-WA	8.0%	4.7%	3.2%	3.1%	4.7%
14860-Bridgeport-Stamford-Norwalk, CT	10.8%	3.8%	6.7%	3.1%	7.5%
17900-Columbia, SC	8.6%	-0.6%	9.3%	4.9%	3.6%
14484-Boston-Quincy, MA	7.2%	0.8%	6.3%	2.0%	5.1%
45300-Tampa-St. Petersburg-Clearwater, FL	5.5%	-1.3%	6.8%	0.8%	4.6%
17460-Cleveland-Elyria-Mentor, OH	6.1%	-1.0%	7.2%	4.1%	1.9%
15764-Cambridge-Newton-Framingham, MA	7.9%	1.0%	6.8%	3.2%	4.5%
33340-Milwaukee-Waukesha-West Allis, WI	3.4%	4.3%	-0.8%	5.4%	-1.9%
38300-Pittsburgh, PA	10.0%	1.8%	8.1%	3.7%	6.1%
16700-Charleston-North Charleston-Summerville, SC	5.5%	0.3%	5.2%	3.3%	2.1%
32820-Memphis, TN-MS-AR	7.7%	3.9%	3.7%	4.1%	3.5%
24860-Greenville-Mauldin-Easley, SC	6.1%	1.2%	4.9%	2.7%	3.4%
34980-Nashville-Davidson-Murfreesboro-Franklin, TN	10.6%	-0.1%	10.7%	-0.6%	11.3%
46140-Tulsa, OK	5.2%	2.5%	2.6%	2.1%	3.1%
36740-Orlando-Kissimmee-Sanford, FL	6.7%	-1.7%	8.5%	-0.1%	6.8%
22744-Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	6.3%	3.2%	3.0%	0.4%	5.9%
23844-Gary, IN	10.9%	-5.4%	17.2%	0.3%	10.6%
45780-Toledo, OH	7.2%	3.7%	3.5%	5.3%	1.9%
16300-Cedar Rapids, IA	10.1%	0.2%	9.8%	2.5%	7.4%
48864-Wilmington, DE-MD-NJ	5.5%	-5.8%	12.0%	0.3%	5.2%
39300-Providence-New Bedford-Fall River, RI-MA	9.1%	-2.1%	11.5%	1.1%	8.0%
15804-Camden, NJ	4.5%	-2.6%	7.3%	-0.7%	5.2%
10580-Albany-Schenectady-Troy, NY	7.4%	0.4%	7.0%	2.5%	4.8%
39100-Poughkeepsie-Newburgh-Middletown, NY	12.5%	0.6%	11.9%	3.8%	8.4%
13820-Birmingham-Hoover, AL	5.9%	2.5%	3.3%	2.2%	3.7%
37900-Peoria, IL	7.8%	-4.4%	12.7%	0.9%	6.8%
41620-Salt Lake City, UT	6.4%	0.8%	5.5%	1.8%	4.5%

Table A-8. Average Annual Growth in Allowed Charges per Admission by Metropolitan Statistical Area (MSA), Adjusted for Procedure and DRG Weights or for Risk Scores, 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010				
	Allowed Charges per Admission, Unadjusted	Combined DRG Weight and Procedures per Admission	Price Adjusted for Procedures and DRG Weight	Average Risk Score	Price Adjusted for Risk Score
19340-Davenport-Moline-Rock Island, IA-IL	14.8%	7.1%	7.2%	5.2%	9.2%
21340-El Paso, TX	8.9%	1.2%	7.6%	4.2%	4.5%
12260-Augusta-Richmond County, GA-SC	0.8%	-2.1%	3.0%	2.6%	-1.8%
48424-West Palm Beach-Boca Raton-Boynton Beach, FL	11.6%	4.4%	6.8%	3.7%	7.5%
36540-Omaha-Council Bluffs, NE-IA	2.7%	-5.3%	8.4%	-3.5%	6.3%
40484-Rockingham County-Strafford County, NH	8.0%	5.5%	2.4%	1.8%	6.1%
44700-Stockton, CA	8.3%	5.6%	2.6%	6.3%	1.9%
45104-Tacoma, WA	8.9%	1.4%	7.4%	1.4%	7.4%
10900-Allentown-Bethlehem-Easton, PA-NJ	5.8%	1.2%	4.6%	4.6%	1.1%
49660-Youngstown-Warren-Boardman, OH-PA	7.4%	0.8%	6.5%	5.2%	2.1%
42100-Santa Cruz-Watsonville, CA	7.6%	0.9%	6.7%	2.5%	5.0%
37764-Peabody, MA	7.1%	-3.5%	11.0%	1.4%	5.7%
28940-Knoxville, TN	5.0%	4.0%	0.9%	2.2%	2.7%
42020-San Luis Obispo-Paso Robles, CA	34.0%	-3.3%	38.7%	1.8%	31.7%
17820-Colorado Springs, CO	10.0%	1.4%	8.4%	4.7%	5.1%
24340-Grand Rapids-Wyoming, MI	7.0%	-3.2%	10.5%	3.0%	3.9%
10420-Akron, OH	8.7%	-1.6%	10.4%	1.0%	7.7%
23060-Fort Wayne, IN	3.9%	-1.2%	5.1%	1.5%	2.3%
40380-Rochester, NY	10.2%	-0.9%	11.2%	-0.6%	10.9%
42220-Santa Rosa-Petaluma, CA	8.5%	7.0%	1.4%	0.3%	8.1%
49340-Worcester, MA	5.3%	-1.1%	6.5%	1.5%	3.8%
35380-New Orleans-Metairie-Kenner, LA	8.4%	2.5%	5.8%	4.8%	3.4%
42140-Santa Fe, NM	7.5%	6.7%	0.8%	7.0%	0.5%
22420-Flint, MI	7.6%	0.0%	7.6%	5.3%	2.2%
49620-York-Hanover, PA	8.3%	-3.2%	11.9%	2.1%	6.0%
39900-Reno-Sparks, NV	2.3%	2.0%	0.3%	4.5%	-2.0%
46060-Tucson, AZ	3.0%	-2.6%	5.7%	-2.3%	5.4%
48620-Wichita, KS	-4.4%	-7.4%	3.3%	1.5%	-5.8%
17780-College Station-Bryan, TX	4.4%	4.0%	0.4%	5.9%	-1.4%
30460-Lexington-Fayette, KY	3.7%	1.9%	1.7%	4.6%	-1.0%
47380-Waco, TX	10.4%	-1.2%	11.7%	6.5%	3.7%
22500-Florence, SC	7.3%	-3.1%	10.7%	2.6%	4.5%
45060-Syracuse, NY	9.1%	5.5%	3.4%	1.0%	8.0%
15380-Buffalo-Niagara Falls, NY	14.4%	4.6%	9.4%	3.8%	10.2%

Table A-8. Average Annual Growth in Allowed Charges per Admission by Metropolitan Statistical Area (MSA), Adjusted for Procedure and DRG Weights or for Risk Scores, 2008 – 2010

	Average Annual Growth Rate, 2008 – 2010				
	Allowed Charges per Admission, Unadjusted	Combined DRG Weight and Procedures per Admission	Price Adjusted for Procedures and DRG Weight	Average Risk Score	Price Adjusted for Risk Score
29540-Lancaster, PA	10.8%	4.7%	5.8%	6.5%	4.0%
14260-Boise City-Nampa, ID	11.3%	4.7%	6.3%	4.6%	6.4%
29460-Lakeland-Winter Haven, FL	9.8%	2.1%	7.5%	5.2%	4.3%
12940-Baton Rouge, LA	6.3%	0.7%	5.5%	2.7%	3.5%
30980-Longview, TX	7.8%	2.8%	4.9%	4.8%	2.8%
36260-Ogden-Clearfield, UT	-0.1%	-1.0%	0.9%	-0.2%	0.1%
39740-Reading, PA	4.2%	2.2%	2.0%	7.0%	-2.6%
24660-Greensboro-High Point, NC	9.3%	0.6%	8.6%	3.1%	6.0%
22660-Fort Collins-Loveland, CO	-1.2%	-2.2%	1.0%	3.1%	-4.2%
25420-Harrisburg-Carlisle, PA	9.7%	6.3%	3.2%	8.8%	0.8%

Source: Data from MarketScan for the commercially insured population under age 65, calculations by the authors.