Hospital Costs in California:
Wide Variations in Charges Raise Questions on Pricing Policies
January 14, 2008

(An Executive Summary of ***Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data*** by Milliman, Inc., October 2007)

Report Summary

In the first of its kind listing of California hospitals' costs and paid charges, *Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data* shows how hospitals compare with each other in two categories – their total cost of providing services and the total amount they charge private insurers and patients, after negotiated discounts. In this report, "charges" are the amount patients and their health plans actually pay for hospital care, not the undiscounted prices hospitals post for the public. The report confirms that hospital costs and charges vary widely among facilities, even after accounting for differences in patient mix and severity. The report further demonstrates that, because hospitals are not required to disclose their actual prices for specific health care services, private insurers and patients have no ability to "shop" for health care based on quality and costs.

Pacific Business Group on Health (PBGH), in conjunction with the California Public Employees' Retirement System (CalPERS), commissioned the report. It provides a list of all California hospitals that reported 2005 data to the state based on their total costs and charges, relative to an average of all facilities. The report offers a means to evaluate which hospitals' costs and charges are above the norm and which are below the norm. Such information provides one piece of the puzzle health care consumers need to assess where they can get the most value for their health care dollars. Also needed is information on the charges for specific treatments or episodes-of-care, quality information, patient experience information, and actual costs based on the contracts between a patient's insurer and a particular hospital.

Identifying the Problem

In most private health insurance plans, costs for hospital care have increased at a rate faster than any other component of the health care system, and hospital costs are the largest portion of the price of insurance premiums. In addition, health care purchasers have found wide variations in what they are charged for similar services provided by different hospitals. This report seeks to shed light on what those variances are throughout the state, as well as to assess the comparative efficiency of hospitals' use of resources. It also quantifies the extent to which private insurers may be paying for

shortfalls in reimbursement from public payers, such as Medicare and Medi-Cal, or the extent to which they are contributing disproportionately to hospital profits.

Key Findings

- In 2005, private payers paid a total of $18 billion for services provided by the hospitals (see Report, Attachment A). It cost the hospitals about $13 billion to provide these services. That is, on average, hospitals were recovering from private payers 40% more than their actual costs. In other words, on average, almost a third of what private payers and commercially insured individuals pay to hospitals is to cover both unreimbursed costs (incurred supplying services to those insured by Medicare, Medi-Cal and the uninsured) and profit. This fact highlights the need for greater hospital efficiency and/or more adequate coverage and reimbursement from government-funded programs.

- Hospital costs and paid charges vary widely across and within the various regions of the state, even after accounting for teaching status and payer mix. For example, the average cost to payers for hospitals in the Sacramento region was nearly 30% higher than the statewide average, after adjusting for regional wage differences. (See Report, Table H-1.)

- The hospital with the highest supply costs has costs three times greater than the hospital with the lowest supply costs. And, across the state, 31 hospitals have supply costs that are more than 10% above the average supply costs. (See Report Attachment G-2 and Tables 1 and 2.) These variations cannot be explained solely by regional differences in supply costs, such as labor, because the results accounted for these differences.

- The hospital with the highest cost to buyers has a cost more than six times greater than the hospital with the lowest cost to buyers. (See Tables 3 and 4.) And, across the state, 55 hospitals have a cost to buyers that is at least 10% greater than the average, even though most of them are neither major teaching hospitals nor major providers of indigent care. (See Attachment G-1.)

- The cost to buyers is in many instances unrelated to the costs to the hospitals. The study shows there is a highly variable pattern of hospital pricing relative to internal costs that cannot be explained by payer mix, teaching status or even supply costs.

Purpose and Conclusions

PBGH and CalPERS commissioned the report to analyze hospital costs and to:

- Advance improvements in hospital care;
- Foster transparency in hospital costs, and;
- Assist private payers and patients in making informed health care value decisions.

This report's analysis of publicly reported data from California hospitals shows that hospital charges and costs vary widely, even among facilities of similar geography, payer mix and severity of illnesses. It further shows that hospital charges do not relate to other facts in any discernable manner. The findings in this report indicate there is a problem with alignment of costs and charges among hospitals. However, without the benefit of data that are broken out by specific health care service or category, it is not possible to draw further conclusions.

In order to fully analyze and compare hospital efficiency or pricing within each service line (such as maternity or heart surgery) actual hospital claims information must be made publicly available, as it is in New Hampshire and other states. In California, such information is available only when a hospital gives its permission to make the data public. To date, California hospitals have not done so.

However, increasingly, service line information on quality is publicly available. (See for example www.calhospitalcompare.org and www.hospitalcompare.hhs.gov). Ideally, information on both cost and quality would be public so purchasers and patients can determine where to get the best value for their health care dollars.

PBGH and CalPERS hope that those who use this report will help foster their efforts to promote greater transparency in hospital information and that all stakeholders -- hospitals and other providers, employers, patients, lawmakers and regulators -- will work together to slow the rising cost of health care for all Californians.

Methodology

The report was prepared by Milliman, Inc., a nationally recognized health care consulting firm. It analyzed publicly available financial information published by the state agency that collects data from hospitals, the Office of Statewide Health Planning and Development (OSHPD). After aggregating the most recently available data at the time -- calendar year 2005 -- a benchmark for the average costs and charges among all hospitals was determined. Hospitals were ranked according to the amount they exceeded or fell below the benchmark.

The statewide average costs and charges among hospitals were assigned a value of 1.00. An individual hospital whose charges to private insurers and patients have a value of 0.75, for example, indicates that the hospital is 25% less costly to payers on average than the statewide norm. A value of 1.25 would indicate that a hospital is 25% more expensive.

The report calculates three measures of hospital cost-efficiency:

- An estimate of relative cost to private payers – meaning health plans and their members – for hospital services, which is called the **Buyer Cost Index** (BCI). (See Tables 3 and 4 attached.)

- An estimate of the relative cost of hospital operations or of supplying hospital services, which is called the **Hospital Cost Index** (HCI). (See Tables 1 and 2 attached.)

- A ratio of the buyer cost to the hospital cost (BCI/HCI) shows whether the costs and charges are consistent with each other. These comparisons are important. A ratio that is high, say 2.0/1.12, may indicate overpricing by the hospital relative to its cost of supplying services. A ratio that is low, such as .81/.93, may indicate good value if the hospital is providing low priced care at the same or better quality as other hospitals.[1] However, a ratio that is low may also be an indication of under-pricing by the hospital or that the hospital is not charging enough to cover the costs of the services it provides.

The report's results were adjusted for case mix and patient severity using 3M APR-DRGs. The measures also were adjusted for regional differences in wages and other hospital costs, or "area adjusted," using the same method used by Medicare.

"Payer mix," or the extent to which hospitals serve indigent populations (and thus may be under-reimbursed) is shown in the "Percent Indigent and Medi-Cal" column of Attachment C. Major teaching hospitals, which may have higher expenses to cover, also are identified in the report.

This report shows a single result for each acute care hospital facility (psychiatric and other specialty hospitals were omitted), reflecting the total costs and charges for all services provided by the facility as a whole. Again, because the source data do not provide cost information for different departments in each hospital, it is impossible to compare individual service lines, such as maternity or heart surgery, from hospital to hospital. Also, although quality of care is an important factor in any analysis of health care costs and charges, this report does not include quality information because there are no publicly available scores reflecting quality of care in the aggregate that could be paired with the data presented in this report.

[1] Numerous studies have shown that high cost does not necessarily equate to high quality in health care. See, e.g. Wennberg, Fisher, & Skinner, "Geography And the Debate Over Medicare Reform", Health Affairs, 13 February 2002.

Examples: Methodology Applied

- The North Bay Medical Center in Solano County has a Hospital Cost Index of 1.12, or 12% above average. Its Buyers Cost Index is 2.0, or 100% above average. This shows that its cost to provide services and its charges to buyers are not proportional to each other. In this case, some of the difference may be explained by a significant indigent population of 36%. However, other hospitals with similar indigent populations do not have a Buyers Cost Index of 2.0. UC Davis, with 39% indigent patients, has a Buyers Cost Index of 1.60.

- A contrasting example is Huntington Memorial Hospital, in the Los Angeles-NE region, with a Hospital Cost Index of .93, and a Buyers Cost Index of .91. This indicates that Huntington Memorial's cost to supply care and its charges to buyers are both lower than the regional and state averages. Because the two scores are well aligned, it also indicates that Huntington Memorial appears to be charging for its services in proportion to its supply costs, instead of using a disproportionate markup.

- In the Sacramento region, a comparison of Mercy General Hospital with Sutter Medical Center Sacramento using the Buyers Cost Index and the Hospital Cost Index shows these two hospitals have a somewhat different payer mix, but very different costs and charges. Mercy General has a Buyers Cost Index of .81 and a Hospital Cost Index of .83 which, as with the Huntington Memorial example, appears to indicate charges for commercial services in line with its costs. In contrast, Sutter Medical Center Sacramento has a Buyers Cost Index of 1.58 and a Hospital Cost Index of 1.06. Hence, for Sutter Medical Center, while its overall costs were very close to the average for its region, 6% higher, its charges to patients with private insurance were almost 60% above average.

- In the San Francisco Bay Area, the Peninsula Medical Center had an adjusted Hospital Cost Index of 1.022 and an adjusted Buyer Cost Index of 0.672, which indicates that supply costs were average and charges were considerably below average at the facility level.

Guide to using the Report

The key data are contained in Appendices C and D of the report. To see an individual hospital's performance, compare that hospital's score on the Hospital Cost Index (Attachment D) to its Buyers Cost Index (Attachment C).

Attachments:

- Table 1: California Acute-Care Hospitals with the Lowest Hospital Cost Indices
- Table 2: California Acute Care Hospitals with the Highest Hospital Cost Indices
- Table 3: California Acute Care Hospitals with the Lowest Buyers Cost Indices
- Table 4: California Acute Care Hospitals with the Highest Buyer Cost Indices

Table 1: California Acute Care Hospitals with the Lowest Hospital Cost Indices[2]

The **Hospital Cost Index** (HCI) is an estimate of the relative cost of hospital operations or of supplying hospital services.

Hospital Name	Area Adjusted Hospital Cost Index
West Anaheim Medical Center	0.597
Southwest Healthcare System – Murrieta	0.652
Foothill/Presbyterian Hospital	0.659
Hemet Valley Medical Center	0.664
Corona Regional Medical Center	0.665
Lancaster Community Hospital	0.680
Beverly Hospital	0.681
San Dimas Community Hospital	0.681
Sierra View District Hospital	0.692
Lakewood Regional Medical Center – South	0.693
Providence Holy Cross Medical Center	0.694
Doctors Hospital Medical Center of Montclair	0.702
Clovis Community Hospital	0.727
Chino Valley Medical Center	0.738
Mercy Hospital – Folsom	0.745
Citrus Valley Medical Center –QV Campus	0.758
Centinela Freeman Medical Center – Centinela	0.759
Riverside Community Hospital	0.763
Bakersfield Memorial Hospital	0.764
St. Bernardine Medical Center	0.777

[2] The twenty selected hospitals are the acute care, non-specialty hospitals with lowest hospital cost index scores reported in "Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data," Attachment G-2. Lower values signify hospital costs lower than average, potentially indicating higher operational efficiency.

Table 2: California Acute Care Hospitals with the Highest Hospital Cost Indices[3]

The **Hospital Cost Index** (HCI) is an estimate of the relative cost of hospital operations or of supplying hospital services.

Hospital Name	Area Adjusted Hospital Cost Index
Tahoe Forest Hospital	1.707
Santa Clara Valley Medical Center	1.637
LAC/USC Medical Center	1.631
Cedars Sinai Medical Center	1.430
City of Hope National Medical Center	1.388
University of California Davis Medical Center	1.384
University of California Irvine Medical Center	1.337
Alta Bates Summit Medical Center	1.305
Sutter Lakeside Hospital	1.282
Salinas Valley Memorial Hospital	1.248
Kern Medical Center	1.235
Stanford University Hospital	1.228
USC University Hospital	1.217
Vaca Valley Hospital	1.210
Barton Memorial Hospital	1.205
California Pacific Medical Center	1.199
John Muir Medical Center	1.184
Marin General Hospital	1.167
South Coast Medical Center	1.130
North Bay Medical Center	1.119

[3] The twenty selected hospitals are the acute care, non-specialty hospitals with highest hospital cost index scores reported in "Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data," Attachment G-2. Higher values signify hospital costs higher than average, potentially indicating lower operational efficiency.

Table 3: California Acute Care Hospitals with the Lowest Buyer Cost Indices[4]

The **Buyer Cost Index** (BCI) is an estimate of the relative cost to private payers – i.e., health plans and their members – for hospital services.

Hospital Name	Area Adjusted Buyer Cost Index
Community Memorial Hospital of San Buenaventura	0.341
West Anaheim Medical Center	0.387
Verdugo Hills Hospital	0.429
Beverly Hospital	0.480
Lancaster Community Hospital	0.515
Providence Holy Cross Medical Center	0.540
Centinela Freeman Medical Center – Memorial	0.608
Hemet Valley Medical Center	0.608
Foothill Presbyterian Hospital	0.625
Santa Monica – UCLA Medical Center	0.637
Brotman Medical Center	0.641
Good Samaritan Hospital – Los Angeles	0.641
San Dimas Community Hospital	0.641
Shasta Regional Medical Center	0.648
College Hospital	0.657
Anaheim Memorial Medical Center	0.667
Doctors Medical Center – San Pablo/Pinole	0.669
Peninsula Medical Center	0.672
Clovis Community Hospital	0.675
Corona Regional Medical Center	0.679

[4] The twenty selected hospitals are the acute care, non-specialty hospitals with lowest buyer cost index scores reported in "Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data," Attachment G-1. Lower values signify lower than average charges paid by private payers.

Table 4: California Acute Care Hospitals with the Highest Buyer Cost Indices[5]

The **Buyer Cost Index** (BCI) is an estimate of relative cost to private payers – i.e., health plans and their members – for hospital services

Hospital Name	Area Adjusted Buyer Cost Index
Vaca Valley Hospital	2.078
North Bay Medical Center	2.002
Cedars Sinai Medical Center	1.790
Sutter Lakeside Hospital	1.772
LAC/USC Medical Center	1.629
University of California Davis Medical Center	1.597
Sutter Medical Center – Sacramento	1.578
Barton Memorial Hospital	1.572
Doctors Medical Center	1.567
Tahoe Forest Hospital	1.554
Chino Valley Medical Center	1.550
Saint Jude Medical Center	1.509
Salinas Valley Memorial Hospital	1.495
Washington Hospital – Fremont	1.452
Seton Medical Center	1.422
Lodi Memorial Hospital	1.400
California Pacific Medical Center	1.378
Santa Clara Valley Medical Center	1.369
Rideout Memorial Hospital	1.334
Twin Cities Community Hospital	1.331

[5]The twenty selected hospitals are the acute care, non-specialty hospitals with highest buyer cost index scores reported in "Cost Efficiency at Hospital Facilities in California: A Report Based on Publicly Available Data," Attachment G-1. Higher values signify higher than average charges paid by private payers.

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Pacific Business Group on Health is a California-based association of 50 of the nation's largest purchasers of health care focused on improving the quality and availability of affordable health care. PBGH represents public and private health care purchasers who cover more than three million retirees, employees and their families, and who are responsible for $10 billion in annual health care expenditures.

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