BlueCross BlueShield Association

An Association of Independent Blue Cross and Blue Shield Plans

Understanding the Inpatient Cost of Caring for the Uninsured

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EXECUTIVE SUMMARY

The convergence of a deteriorating economy, state and federal budget cutbacks and renewed healthcare inflation has increased attention to the rise of the uninsured population. With over 41 million people uninsured,[1] 14.6 percent of the U.S. population and growing, a better understanding of the uninsured population is essential to devising appropriate solutions.

This paper quantifies the inpatient hospital costs of caring for the uninsured and provides a foundation for estimating the impact of changes in the size and composition of the uninsured population.

The key findings of our analysis are:

- Inpatient care for the uninsured accounted for an estimated 1.6 to 1.9 million discharges, 6.9 to 8.3 million inpatient days, and $9.7 to $11.6 billion in total hospital costs during 2001. These figures represent 5.6 percent of all hospital discharges, 4.7 percent of all hospital days and 5.1 percent of overall hospital inpatient costs. The sheer magnitude of the resources involved in caring for the uninsured means that any solutions will have an enormous impact on hospitals and on other sources that directly or indirectly fund the costs of the uninsured.

- Caring for the uninsured fell somewhat disproportionately on teaching hospitals. The uninsured accounted for 6.8 percent of their discharges, compared with 5.3 percent for community hospitals. Overall, teaching hospitals accounted for 23 percent of uninsured discharges and 33 percent of the total costs of caring for the uninsured. Any initiatives to reduce the number of uninsured individuals should pay close attention to teaching hospitals' important role in providing care for these individuals.

- Adults, ages 30 to 64, accounted for by far the largest portion of uninsured individuals who were hospitalized. They represented 58 percent of hospital discharges among the uninsured and 68 percent of the total costs of caring for these patients. While much has been written about young adults being uninsured, adults ages 30 to 64 account for the vast majority of the inpatient hospital care among the uninsured. These are the ages when the prevalence of chronic disease rises.

- The total cost of admissions for ambulatory care sensitive conditions (ACSCs) for the uninsured was a projected $1.2 to $1.4 billion nationally in 2001. This amount represents 12.1 percent the overall cost of care for the uninsured. Some of these admissions may be prevented through good outpatient care. The uninsured had a substantially higher proportion of ACSC admissions than privately insured patients (8.7 percent). Addressing these conditions requires a broad perspective that encompasses access to and coordination of care, as well as preventive and outpatient services.

- The top five ACS conditions—bacterial pneumonia, diabetes, congestive heart failure, low birth weight and adult asthma—represented two-thirds of ACSC-related total costs and 60 percent of the ACSC-related discharges for the uninsured. Admissions for

diabetes and adult asthma were much more prevalent among the uninsured than among privately insured patients. Focusing disease management efforts on these top five conditions, with a strong emphasis on diabetes and asthma, could substantially reduce the costs of caring for the uninsured while improving their health status.

- The most common specialties caring for uninsured patients were general surgery, cardiology, psychiatry, neonatalogy/pediatrics and obstetrics (OB). The number of discharges across these five areas were roughly equal. In comparison to privately insured patients, uninsured patients were more likely to use psychiatric services and less likely to see obstetricians and neonatologists/pediatricians. While newborn and OB care are certainly important for the uninsured, attention also needs to be given to basic surgical care, psychiatric services and heart problems.

- Uninsured patients were reasonably similar to privately insured patients in their severity of illness. While the uninsured had a slightly longer average length of stay (3.4 percent longer or 0.14 of a day), they had a substantially higher cost per case (12.3 percent higher or $651) than privately insured patients. Other factors besides severity clearly influence the care of the uninsured.

The central business implications of our analysis are:

- Uninsured individuals who require inpatient hospital care are quite different from the general uninsured population and from those covered under private insurance. They are much older than the general uninsured population. They are hospitalized much more frequently than privately insured individuals for conditions that could be treated outside the hospital if good preventive and ambulatory care services were more accessible. Inpatient care for diabetes, asthma and mental health services is much more common for the uninsured.

Unless these differences are explicitly taken into account, any estimates of the inpatient-related costs of a growing uninsured population or of the impact of programs that cover the uninsured will be seriously flawed. Likewise, the design of programs to improve the health status of the uninsured must consider why these patients are hospitalized and what can be done to either avoid hospitalization or lessen the severity of their illness when they are admitted.

- Covering the uninsured under private insurance should substantially reduce the inpatient care required for diabetes. Diabetes care for the uninsured is currently disjointed and incomplete due in large part to lack of insurance. This results in hospital admissions for diabetes that in many cases could be avoided.

In our study, uninsured individuals were admitted for diabetes-related complications 2.5 times more often than individuals with private insurance. Appropriate management of diabetes outside the hospital would probably avoid up to 23,000 admissions for diabetes and could save up to $84 million in direct hospital costs. Some of these savings could in turn be used to provide broader access to care for the uninsured and significantly improve health status. A recent study by the American Diabetes Association (ADA) highlights the

growing importance of proper diabetes care. The ADA found that the direct medical costs of diabetes have more than doubled in the last five years.[2]

INTRODUCTION

The convergence of a deteriorating economy, state and federal budget cutbacks and growing healthcare inflation has increased attention to the rising number of uninsured Americans. The purpose of this paper is not to explain the forces affecting the uninsured or to offer solutions to the uninsured problem. Instead, it focuses on quantifying the hospital inpatient costs of caring for the uninsured. It therefore provides a foundation for estimating the impact of changes in the size and composition of the uninsured population.

Uninsured hospital patients differ from privately insured patients in their age, the inpatient services required and their severity of illness. This paper aims to document those differences.

Based on most recent estimates from the Census Bureau, 41.2 million Americans were uninsured in 2001.[3] The percentage of people who were uninsured rose from 14.2 percent in 2000 to 14.6 percent in 2001. All indications are that those figures have increased since 2001 and will grow even higher as unemployment rises or as federal and state programs such as Medicaid are reduced.[4] This report uses hospital discharge data from 10 states for 2001 or 2000, and the results are projected nationally.

This analysis seeks to answer the following questions:

- What are the inpatient costs of caring for the uninsured nationwide?

- What are the characteristics of the uninsured inpatients—age, type of services needed, and frequency of ambulatory care sensitive conditions (ACSC), which might be avoided with proper outpatient or preventive care?

METHODS

State Selection Criteria

We selected all acute general hospitals in ten states, regionally distributed as follows:

Northeast	Massachusetts, New York
South	Virginia, Florida
Southwest	Texas
Mid-West	Illinois, Iowa
West	California, Washington, Colorado

These states, which account for approximately 45 percent of inpatient discharges nationally, have publicly available data with the level of detail necessary for our analysis. Table 1 compares the hospitals used in this report with hospitals in the U.S. as a whole.

TABLE 1. Comparison of Bed Size and Urban/Rural Characteristics in 1998

	Number of Hospitals	Bed Size <100	Bed Size 100-299	Bed Size 300-499	Bed Size 500+	Urban	Rural
United States	5,015	45%	39%	11%	5%	56%	44%
Sample	1,880	39%	42%	13%	6%	70%	30%

Source: AHA Hospital Statistics 2000

Data Sets

We used Hospital Medicare Cost Reports (MCR) for PPS year 17 (2000-2001) and the most recent Uniform Hospital Discharge Data Set (UHDDS) available. For 7 of the 10 states, we used 2001 discharge data. For Texas, we used data from the last half 2000 and first half 2001. For California and Iowa, we used 2000 data.

Calculation of Costs

To develop inpatient cost data for this study, UHDDS-based charges per discharge were marked down to costs by applying the hospital-specific ratio of cost-center costs to charges, to the UHDDS charges. This methodology provides reasonable cost estimates at the discharge level .[5] Our cost data were separated into direct cost (costs before allocating overhead) and total cost (costs after allocating overhead) based on Medicare step-down methodology.

Definition of Teaching Hospitals and Risk Adjustment

Major teaching hospitals were defined as members of the Council of Teaching Hospitals (COTH)[6]. We considered all remaining hospitals as community hospitals for purposes of our analysis, with some minor adjustments for non-COTH hospitals that functioned as major teaching hospitals in terms of their case mix. We also excluded those COTH members with few inpatient discharges or those that were highly specialized, such as rehabilitation institutions. Using this definition, teaching hospitals provided 19.4 percent

of the inpatient discharges in our 10-state sample. Their share ranged from 5.4 percent in Colorado to 42.4 percent in Massachusetts.

In California, we specifically excluded all discharges from Kaiser Permanente hospitals, which do not have any reported charges. This excluded a total of 395,434 discharges of which 5,039 were categorized as self-pay or indigent care from our analysis.

To ensure proper comparisons among teaching versus community hospitals, we adjusted our results for severity of illness where appropriate. We used the Refined DRG (RDRG) system from Yale as the basis for that adjustment. The RDRGs separate each surgical DRG into four severity levels and each medical DRG into three levels based on the secondary diagnoses, procedures, age, gender and discharge disposition of the patient.

Definition of Payer Categories

Essential to the analysis is our definition of the uninsured and private insurance categories. We relied on the payer mix classifications contained in each state's discharge data set. Specifically, we added self-pay and, where separately identified, free care and indigent care categories together to arrive at the total for uninsured. We then subtracted any self-pay patients from outside of the United States who were in for elective care as they likely represented voluntary self-pay patients, rather than truly uninsured self-pay patients. We defined private insurance as a combination of any of the following payer classifications: Blue Cross Blue Shield, commercial, HMO, PPO, POS, EPO, and self-insured.

More specific methodologies to analyze differences in age, ambulatory care sensitive conditions, severity adjustment and other factors are described in the relevant sections of this report.

FINDINGS

Inpatient Cost of Caring for the Uninsured

Our 10 sample states account for 53.6 percent of the uninsured population, but only 46.0 percent of the total population, indicating the concentration of the uninsured in our sample states. The percentage of the population that was uninsured in our sample states ranges from lows of 7.5 percent in Iowa and 8.2 percent in Massachusetts to highs of 23.5 percent in Texas and 19.5 percent in California.

In our 10-state sample, 900,000 of the 15.5 million hospital discharges (5.6 percent) were for uninsured patients. Additional details are provided in Tables 2 and 3. These uninsured patients represented 4.7 percent of the total patient days, 4.6 percent of all hospital charges, 5.1 percent of the total costs and 5 percent of direct costs. On a per discharge basis, the average length of stay for an uninsured patient was 4.3 days; the average charge was $13,746; the average total cost was $5,957; and the average direct cost was $3,520.

To extrapolate to a national level, we calculated a lower limit based on the 10 sample states' share of the nation's uninsured population (53.6 percent) and an upper limit based their share of total national discharges (45 percent) and the U.S. population (46 percent). The results are found in Table 2. Uninsured patients accounted for 1.6 to 1.9 million discharges and $9.7 to $11.6 billion in total hospital costs.

TABLE 2. Frequency and Costs of Inpatient Hospital Care for Uninsured Patients

Care for the Uninsured	Estimate from 10-State Sample	Range Estimated for U.S. as a Whole
Number of Discharges	900,000	1.6 to 1.9 million
Number of Inpatient Days	3.7 million	6.9 to 8.3 million
Hospital Charges	$12 billion	$22.4 to 26.7 billion
Total Hospital Costs	$5.2 billion	$9.7 to $11.6 billion
Hospital Direct Costs	$3.1 billion	$5.7 to $6.8 billion

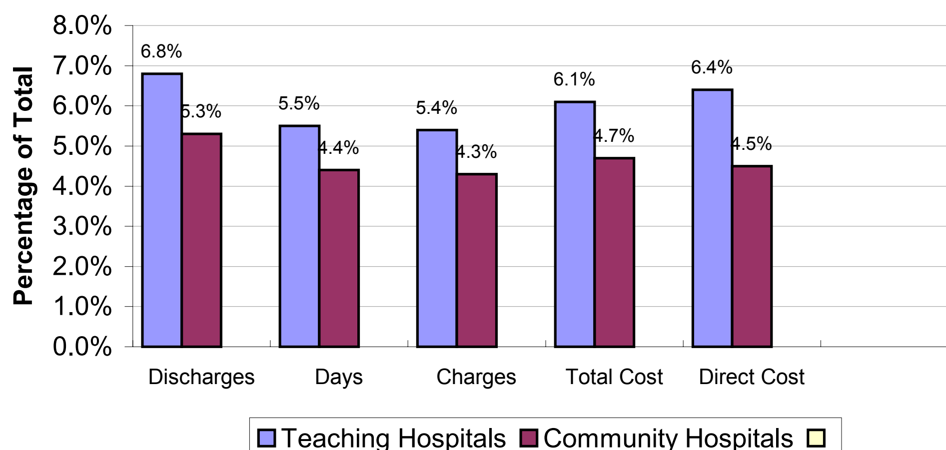
We expect the true results to be somewhere in the stated ranges because the rate of use of inpatient services by the uninsured in states with disproportionately high uninsured populations tends to be lower than in states with lower proportions of uninsured residents. In the sample states, the rate of inpatient discharges per thousand uninsured population is among the lowest for the two states with the highest proportion of uninsured population—California at 28.2 inpatient discharges per thousand uninsured population and Texas at 36.4. The rate of inpatient discharges is among the highest for two of the states with the lowest proportion of uninsured population—Iowa at 78.6 and Massachusetts at 53.7 inpatient discharges per thousand uninsured residents.

In interpreting these figures, it should be noted that they are from the hospital's perspective and relate to inpatient hospital resources only. They do not provide any insight into the amount actually paid out of pocket by the uninsured or the amount received in payment for care by the hospital. Rather, they represent the hospital costs of providing that care to the uninsured, not the amount of uncompensated care. Accordingly, comparisons to other studies of the uninsured should be performed with caution. A recent study by Hadley and Holahan provides a broader view of the medical care used by the uninsured across hospital inpatient and outpatient, clinic and physician settings of care with a focus on uncompensated care.[7]

Role of Teaching Hospitals

Caring for the uninsured fell somewhat disproportionately on teaching hospitals. The uninsured accounted for 6.8 percent of teaching hospitals' discharges, compared with 5.3 percent for community hospitals. Further details are provided in Figure 1.

FIGURE 1. Uninsured Care in 2001



Overall, teaching hospitals accounted for 23 percent of the uninsured discharges and 33 percent of total costs related to the uninsured. For the entire inpatient population, teaching hospitals represented 19 percent of discharges and 28 percent of total costs.

Age Composition of the Uninsured

The age composition of hospitalized uninsured patients may be of particular interest in identifying where the greatest needs exist for covering the uninsured. Accordingly, we performed our analysis for five separate age groups: newborns, children (under age 18, excluding newborns), young mothers (females under age 21 with OB inpatient services), young adults (age 18 to 29), adults (age 30 to 64) and seniors (age 65 or older).

Adults accounted for by far the largest portion of uninsured care. They represented 58 percent of the uninsured discharges and 68 percent of the total costs for caring for the uninsured. Uninsured patients were reasonably similar in age to the privately insured patients. The most notable differences were in the young adult category and the newborn category. Table 3 provides additional details.

TABLE 3. Age Composition of Uninsured Hospital Patients

	Percentage of Discharges		Percentage of Total Costs	
	Uninsured	Private	Uninsured	Private
Newborns	11%	17%	3%	8%
Pediatrics (<18)	6%	8%	5%	8%
Young Mothers (< 21)	2%	1%	1%	1%
Young Adults (18 to 29)	19%	12%	16%	9%
Adults (30 to 64)	58%	54%	68%	63%
Seniors (65+)	5%	8%	7%	12%

Ambulatory Care Sensitive Conditions

Ambulatory Care Sensitive Conditions (ACSC) are inpatient admissions that could potentially be avoided with appropriate outpatient or preventive care. If treated effectively before becoming severe enough to require hospitalization, the overall cost of care is likely to be substantially lower for these conditions. Kane and Siegrist provide a summary of the recent research results regarding ACSCs.[8]

For our purposes, we used the 16 ACSC indicators defined by the University of California San Francisco -Stanford Evidence-based Practice Center[9] as follows:

Dehydration	Diabetes, short-term complications
Bacterial pneumonia	Diabetes, long term complications
Urinary infection	Diabetes, uncontrolled
Perforated appendix	Lower extremity amputation
Angina	Hypertension
Adult asthma	Low birthweight
COPD[1]	Pediatric asthma
Congestive heart failure	Pediatric gastroenteritis

In our sample, the proportion of ACSC admissions was higher for the uninsured patients (12.1 percent) than for privately insured patients (8.7 percent). The total cost of ACSC admissions for the uninsured was $629 million in our 10 sample states or a projected $1.2 to $1.4 billion nationally. These admissions represent 12.1 percent of the overall cost of inpatient hospital care for the uninsured. For privately insured patients, ACSC admissions accounted for 8.7 percent of admissions but 10.4 percent of total costs.

The top five ACSCs—bacterial pneumonia, diabetes (combination of 3 diabetes categories), congestive heart failure (CHF), low birthweight and adult asthma—represented two-thirds of the total costs and 60 percent of the admissions for ACSCs among uninsured patients.

[1] Chronic obstructive pulmonary disease

As indicated in Table 4, diabetes accounted for a much higher proportion of ACSC total costs for the uninsured than for private insurance. Similarly, adult asthma was a more important contributor to ACSC total costs for the uninsured than for private insurance. In contrast, low birth weight was much less of an issue for the uninsured than for the privately insured.[2]

TABLE 4. ACSC Discharges and Costs among Uninsured and Privately Insured Patients

	Percentage of ACSC Discharges		Percentage of ACSC Total Costs	
	Uninsured	Private	Uninsured	Private
Adult Asthma	10%	7%	7%	4%
Angina	3%	3%	2%	1%
Bacterial Pneumonia	17%	18%	18%	15%
CHF	12%	11%	15%	12%
COPD	7%	8%	7%	7%
Dehydration	5%	10%	3%	4%
Diabetes	16%	9%	16%	8%
Hypertension	4%	2%	3%	1%
Low Birth Weight	5%	10%	9%	32%
Lower Extremity Amputation	2%	1%	4%	3%
Pediatric Asthma	4%	6%	2%	2%
Pediatric Gastroenteritis	2%	3%	1%	1%
Perforated Appendix	5%	4%	7%	5%
Urinary Tract Infection	9%	8%	6%	4%

Specialty Mix of Services for the Uninsured

Using a definition of specialty developed by the Massachusetts Health Data Consortium that groups CMS Diagnosis Related Groups into 26 clinical specialties,[10] we compared the mix of illnesses among uninsured and privately insured patients. The specialties most commonly treating uninsured patients in the 10-state sample were general surgery (11.3 percent of discharges), cardiology (11.2 percent), psychiatry (11.1 percent), neonatology/pediatrics (10.7 percent) and obstetrics (10.1 percent). The number of discharges was roughly equal for each of these specialties. In comparison to privately insured patients, uninsured patients were treated more often by psychiatrists and less often by obstetricians and neonatologists/pediatricians. Additional details are provided in Table 5.

[2] The large share of costs accounted for by low birth weight babies among privately insured individuals is consistent with the general rise in low birth weight among all socioeconomic groups. Among more affluent individuals it is associated in part with the increase in multiple births and the use of drugs to increase fertility.

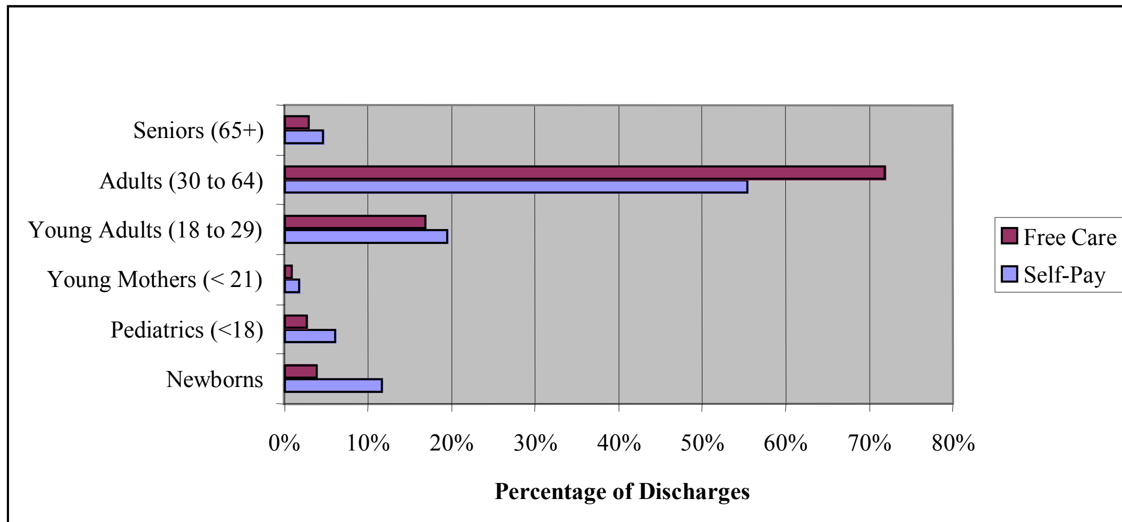
TABLE 5. Specialty Mix of Services

	Percentage of Discharges		Percentage of Total Costs	
	Uninsured	Private	Uninsured	Private
General Surgery	11%	9%	19%	17%
Cardiology	11%	10%	11%	11%
Psychiatry	11%	5%	8%	3%
Orthopedic Surgery	5%	7%	8%	10%
Gastroenterology	8%	6%	7%	4%
Pulmonology	7%	5%	7%	5%
Obstetrics	10%	18%	5%	10%
Thoracic Surgery	2%	2%	5%	8%
Neurology	4%	3%	4%	3%
General Medicine	4%	3%	4%	3%
Neonatology/Pediatrics	11%	17%	3%	8%
Neurosurgery	1%	1%	3%	3%
Gynecology	2%	5%	2%	4%
Endocrinology	3%	2%	2%	1%
Oncology	1%	2%	2%	3%
Other Specialties	9%	7%	10%	9%

Self-Pay Compared with Free Care/Indigent Care

Hospital discharge records for five states had separate payer categories for self-pay and free care/indigent care patients.[11] There are striking age differences between these two groups (see Figure 5). Newborns accounted for almost 12 percent of self-pay discharges but only 4 percent of free care/indigent care discharges. Similarly, children represented 6.3 percent of self-pay patients compared with 2.8 percent of free care patients. Conversely, adults accounted for a much higher proportion of free care discharges than of self-pay discharges. From a cost perspective, newborns and children combined accounted for approximately 10 percent of self-pay costs for self-pay patients versus only 3 percent of costs for free care patients. Adults accounted for most of the costs of care for both self-pay (64.7 percent) and free care (77.7 percent) patients.

FIGURE 2. Age Composition*



*Percentages by age group each sum to 100 percent for the free care and self-pay categories.

Diabetes was more prevalent among free care patients (20.3 percent of discharges vs. 14.6 percent for self-pay patients), while low birth weight was more frequent among self-pay patients (5.7 percent of discharges vs. 1.7 percent for free care patients). Self-pay and free care patients were similar in the percentage of discharges and total costs attributable to bacterial pneumonia, CHF, and adult asthma.

In terms of the specialty mix of services, obstetrics and care for newborns represented a substantially larger proportion of discharges and total costs for self-pay patients than for free care patients. Otherwise, the specialty services used by self-pay and free care patients were reasonably similar.

Severity of Illness for the Uninsured

Thus far in the analysis, we have not considered differences in case mix or severity of illness in comparing uninsured patients with privately insured patients. To determine whether how much of the difference between these groups of patients was due to variations in their illness, we used the RDRGs (Refined Diagnosis-Related Groups) developed at Yale University to adjust for differences in severity. By comparing the unadjusted figures to the severity-adjusted figures, we can determine the impact of differences in the severity of illness. Any remaining differences in resource use are likely to be due to other factors such as the availability of home or community support services, variations in treatment patterns, and individual hospital variations.

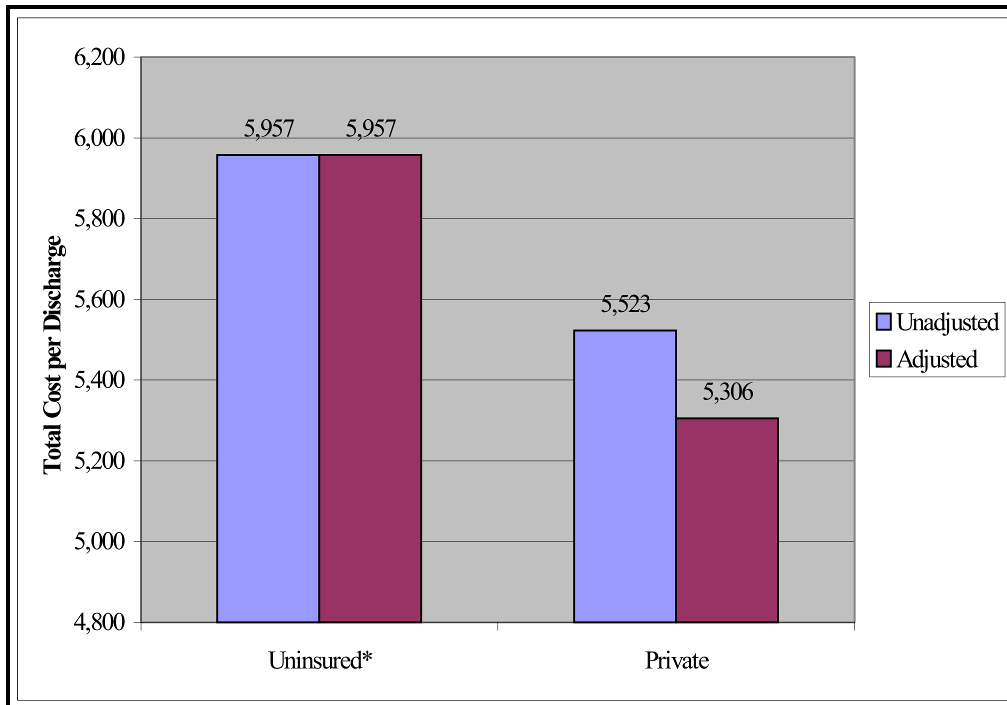
Before any adjustments, the average length of stay for uninsured patients was 4.25 days, which is 6.5 percent longer than for privately insured patients. The average uninsured patient's total cost per case of $5,957 is 7.8 percent higher than private insurance, consistent with the length of stay difference.

After adjusting the data using RDRGs so that the severity mix among privately insured patients is the same as among uninsured patients, the average length of stay for uninsured patients was 3.4 percent longer (0.14 of a day) than for privately insured patients. The

total cost difference also changed, so that the costs for uninsured patients were 12.3 percent higher than for privately insured patients.

Figure 3 shows the total cost per discharge for the uninsured compared to the privately insured before and after adjustment for severity of illness.

FIGURE 3. Comparison of Costs, Adjusted to Severity of Illness Among Uninsured Patients



*Reference group

Severity adjustment has a limited effect on the comparison of the uninsured and privately insured patients. The LOS for private patients goes down somewhat, while the costs go up somewhat. This result suggests that there are minor differences in severity between these two groups of patients. This conclusion is consistent with the findings for the case mix indexes, which are based on the weights for each DRG developed by the Centers for Medicare and Medicaid Services (CMS). The case mix index for privately insured patients is 1.049, while for the uninsured it is 0.998, a 5 percent difference. The case mix index is a less refined method of adjustment, since it takes into account only DRG mix, not severity mix within a given DRG.

The average charge for an uninsured patient is only 0.7 percent higher than for a privately insured patient, but the total cost to the hospital is 12.3 percent higher ($651). This disparity may be due to greater use of services that typically have a high cost-to-charge ratio, such as nursing care or the emergency room, and lower use of services that typically have a low cost-to-charge ratio, such as laboratory, radiology and pharmacy. More study would be required to draw any meaningful conclusions in this area.

After severity adjustment, the length of stay at teaching hospitals was essentially the same (1.0 percent higher) for the uninsured and privately insured. The length of stay for

uninsured patients was somewhat higher (4.7 percent) at community hospitals than at teaching hospitals. The total cost per case patients was 16.4 percent higher for uninsured patients than for privately insured patients at teaching hospitals and 10.7 percent higher at community hospitals, despite almost no differences in the average charge per case. Additional details are provided in Table 6.

TABLE 6. Severity Adjusted Comparison - Teaching vs. Community Hospitals*

	Discharges	Days	Charges	Total Cost	Direct Cost
Teaching Hospitals					
Uninsured	203,788	4.58	17,225	8,458	5,313
Private	1,175,096	4.54	17,156	7,264	4,357
Uninsured vs. Private		1.0%	0.4%	16.4%	21.9%
Community Hospitals					
Uninsured	669,540	4.15	12,687	5,195	2,975
Private	4,623,155	3.96	12,447	4,692	2,796
Uninsured vs. Private		4.7%	1.9%	10.7%	6.4%

* Pool of privately insured patients adjusted to have same severity mix as the uninsured using RDRGs.

CAVEATS

Our analysis is subject to the usual limitations associated with using administrative data. We base our definition of the uninsured on payer classifications that are included in that administrative data. There are likely to be some inconsistencies in those definitions and how they are applied across states and hospitals. When we adjust for severity, we rely on secondary diagnoses and procedures coded for each patient and other characteristics available in the administrative data.

We also selected states for our analysis that over-represent larger and urban hospitals and states with large uninsured populations, and we have not specifically analyzed differences among our sample states. It is for this reason that we provide a range of values when extrapolating to the nation as a whole.

We focus on hospital inpatient services and the costs associated with them. These data do not include other services that uninsured individuals receive at hospitals, in particular care in the emergency department, which would substantially increase these estimates. Also, we do not document the actual payments hospitals receive for their services.

Our cost figures do not directly translate into potential savings from reducing hospitalizations for ambulatory care sensitive conditions (because savings in inpatient care would be offset in part by the cost of outpatient and preventive care) or the potential increases in costs required to care for a growing uninsured population.

Finally, we have not looked at resource use by hospital department (e.g., nursing, lab, radiology, pharmacy) that may help better understand resource use differences.

CONCLUSIONS

The findings from this study provide important insights about the characteristics and composition of the uninsured population that seek inpatient hospital care and the costs of caring for these individuals. Although the uninsured are reasonably similar to privately insured patients in their severity of illness, they are hospitalized more frequently and have a substantially higher proportion of hospitalizations for ambulatory care sensitive conditions (e.g., diabetes and asthma) Addressing these conditions requires a broad perspective that encompasses access to and coordination of care, as well as preventive and outpatient services. The current lack of coordinated and preventive healthcare services contributes significantly to hospital inpatient cost differences between the uninsured and individuals with private health insurance. The magnitude of resources involved in caring for the uninsured and paying for the cost of that care requires broad-based solutions. Programs need to be designed to encourage the uptake of insurance coverage by the uninsured and increase availability of and access to interventions that improve the health status of the uninsured and avoid unnecessary hospitalizations.

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Definition of Resource-Related Terms

Discharges—Number of patients that received inpatient care at the hospital during the year. Discharges can be considered synonymous to admissions.

Length of stay or days —Total hospital days of care for patients admitted to the hospital for overnight stays.

Charges—Gross inpatient charges for individual services such as nursing, operating room, radiology, lab and pharmacy, based on the hospital price book or charge master. These charges do not represent payments received by the hospital for care provided from the insurance provider or the patient.

Direct Cost —Cost of providing care to patients before any allocation of overhead. This figure includes salary and non-salary costs for departments such as nursing, operating room, lab, radiology and pharmacy. It is derived using the ratio of cost to charge methodology based on information hospital provides in annual Medicare cost reports.

Total Cost—Full cost of providing care to patients, including allocation of overhead. Overhead is allocated using the Medicare step-down methodology. Administration, finance, depreciation, interest, and information systems are examples of overhead departments that are allocated.

[1] U.S. Census Bureau, Current Population Survey, 2001 and 2002 Annual Demographic Supplements.
[2] "Economic Costs of Diabetes in the U.S. in 2002", Diabetes Care, March 2003.
[3] U.S. Census Bureau, Current Population Survey, 2001 and 2002 Annual Demographic Supplements.
[4] See Todd Gilmer and Richard Kronick, "Calm Before the Storm: Expected Increase in the Number of Uninsured American's", Health Affairs, November/December 2001 and Joel Miller, National Coalition on Health Care, "A Perfect Storm: The Confluence of Forces Affecting Health Care Coverage", November 2001.
[5] "Ratio of Costs to Charges: How Good a Basis for Estimating Costs?", Inquiry, Winter 1995/1996 by Michael Shwartz, David Young and Richard Siegrist.
[6] Listing of COTH hospitals by state available at AAMC web site, www.aamc.org/teachinghospitals.htm.
[7] Jack Hadley and John Holahan, "How Much Medical Care Do The Uninsured Use, And Who Pays For It?", Health Affairs, February 12, 2003, www.healthaffairs.org/webexclusives/hadley_Web_Excl_021203.htm and "Who Pays and How Much? The Cost of Caring for the Uninsured," February 12, 2003, www.kff.org/content/2003/4088/4088.pdf.
[8] Nancy Kane and Richard Siegrist, "Understanding Rising Hospital Inpatient Costs: Key Components of Cost and the Impact of Poor Quality", August 2002.
[9]Defined by the University of California San Francisco -Stanford Evidence-based Practice Center as part of their refinement of the HCUP Quality Indicators, sponsored by the Agency for Healthcare Research and Quality. Davies SM, Geppert J, McClellan M, et al, May 2001.
[10] Listing of DRGs grouped into each specialty available at Massachusetts Health Data Consortium web site, www.mahealthdata.org.
[11] Five of the 10 sample states divided the uninsured into separate self-pay and free care/indigent care classifications (Massachusetts, Colorado, California, Virginia and Florida. The specific programs included in the free care/indigent category are the Massachusetts Uncompensated Care Pool, the Colorado Indigent Care Program (CICP), the County Medical Services Program (CMSP) and California Healthcare for Indigents Program (CHIP*)* in California, the Virginia Indigent Care Trust Fund. Details on these programs are available at www.state.ma.us/dhcfp/pages/pdf/hcc_0004.pdf for Massachusetts, www.chcpf.state.co.us/cicp/cicpindex.html for Colorado, www.oshpd.cahwnet.gov/Hid/HID/patient/discharges/patmanuals/pd3/payment.pdf for California and www.dmas.state.va.us/Stats_02/Chapter_11/ihtfoverview.pdf for Virginia. In Florida, there is a separate designation for charity care as opposed to self-pay.