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Report to the Chairmen and Ranking Minority Members, Committees on Veterans' Affairs, U.S. Senate and House of Representatives

June 1999

VA HEALTH CARE

Third-Party Charges Based on Sound Methodology; Implementation Challenges Remain

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Health, Education, and
Human Services Division

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The Honorable Arlen Specter
Chairman
The Honorable John D. Rockefeller
Ranking Minority Member
Committee on Veterans' Affairs
United States Senate

The Honorable Bob Stump
Chairman
The Honorable Lane Evans
Ranking Minority Member
Committee on Veterans' Affairs
House of Representatives

The Department of Veterans Affairs (VA) operates the nation's largest integrated health care system, providing care for eligible veterans with service-connected and non-service-connected conditions. For veterans who have private health insurance, VA was authorized, under the Veterans Health Care Amendments Act of 1986, to bill their private insurers on a "reasonable cost" basis for care provided to veterans for non-service-connected conditions. The Balanced Budget Act of 1997 (BBA) amended this authority to specify "reasonable charges" as the basis for billing private insurers and directed VA to develop a rule to change its basis for billing. Reasonable cost billing is designed to recover VA's costs of furnishing care, while reasonable charge billing is designed to obtain the same payment for VA that insurers make to other providers. The shift to reasonable charges is intended to enhance VA collections to the extent that reasonable charges result in higher payments than reasonable costs. BBA also allowed VA to retain all collections, whereas before it had to return collections, minus collection costs, to the U.S. Treasury.

Obtaining revenue from third-party payments is a key element of VA's strategic plan to expand and improve health care for veterans without increasing its appropriations. Specifically, VA estimated it could generate 10 percent of its health care budget from nonappropriated funds by fiscal year 2002. This, along with its plan to lower unit costs of providing services by 30 percent, was expected to allow VA to serve 20 percent more veterans while operating without a budget increase over the fiscal year 1997-2002 period. In fiscal year 1998, nonappropriated funds totaled

$560.1 million from collections and users' fees, 79 percent of which came from collections from insurers.

On April 27, 1999, VA published the final rule reflecting the change in its medical billing rates to private insurers from a reasonable cost to a reasonable charge basis. The method VA used to develop reasonable charges was designed to estimate the 80th percentile of local charges so that its reasonable charges to private insurers would typically equal or exceed 80 percent of all charges submitted for the services provided. VA received six comments on its proposed rule (published on October 13, 1998), which generally did not discuss in detail the validity of VA's methodology. An association of insurers asked for additional time to submit comments on VA's methodology and prepare their claims systems to process VA's new reasonable charge claims. VA delayed implementation of the final rule until September 1, 1999.

In response to the requirements of 38 U.S.C. 1729(c)(2)(C), this report provides our findings concerning (1) the soundness of VA's methodology for setting reasonable charges for inpatient facility, skilled nursing, outpatient facility, physician, and nonphysician services and (2) potential effects of the new charge-based system on VA, insurers, and veterans. We performed our evaluation from September 1998 through May 1999 in accordance with generally accepted government auditing standards. For details on our scope and methodology, see appendix I.

Results in Brief

We believe VA's methodology provides a sound basis for setting reasonable charges and optimizing its collection revenues. Its methodology logically applies available data to set local market charges for each geographic area where VA provides care. In cases where VA's charges are higher than the insurers' usual payments to other providers for the same care, insurers are permitted by law to pay VA these usual amounts rather than VA's billed charges. However, if VA submits charges that are less than the insurers' usual payments, the insurers may pay the lower amounts. Therefore, if VA sets its charges below market prices, it will forego some of the revenue it could collect from private insurers. VA is currently working with a contractor to establish a way to identify charges that need to be modified to better reflect market prices.

VA expects that the shift to reasonable charges will increase collections from private insurers, but it cannot accurately project the amount. The potential revenue gain is dependent on the difference between the

reasonable cost and reasonable charge payments and the volume of payments received from third-party payers. However, VA does not have sufficient reliable data on either. For example, VA databases do not contain sufficient detail on the type of insurance coverage veterans have or the specific care provided to insured veterans in order to project revenue changes. Consequently, we agree that the effect on VA's collections—and the corresponding effect on insurers' costs—cannot be accurately determined. Moreover, in cases where insurers exercise their option to pay their usual amounts instead of VA's proposed reasonable charge, VA faces the challenge of determining whether the payments it receives from insurers are in fact the appropriate amount. VA has not established procedures to make this determination. We are recommending that VA take the appropriate steps to ensure it receives payment comparable to other providers. While the effect of the shift to reasonable charges on VA revenue and insurers' costs is not precisely predictable, it should not have an appreciable effect on veterans because it does not change the copayment and per diem payments set by statute that are required of some veterans receiving VA care.

Background

In proposing its fiscal year 1999 and fiscal year 2000 budgets, VA assumed that it would be increasing collections from insurers and user fees (copayments and per diems from certain veterans). VA projected fiscal year 1999 collections would increase by 14 percent from fiscal year 1998 levels to $637.5 million through better administrative efficiency and implementation of billing rates based on reasonable charges. In fiscal year 2000, VA expects collections to increase about another 19 percent to $761.6 million. However, the Administration's plan to substantially increase such nonappropriated funds in the long term hinges on the authorization of reimbursement through Medicare subvention,[1] which was not enacted at the time of the publication of the final rule on reasonable charges.

Under VA's cost-based charge system, VA's charges to insurers have not been specific to the particular service VA provided—or the resources that it costs VA to provide a particular service—because reasonable cost charges are based on average costs. Reasonable cost charges include relatively few rates—nine inpatient rates based on the patient's location in the hospital, one nursing home rate, and one outpatient visit rate. When proposing a shift to reasonable charges, the House Committee noted that VA's

[1]Medicare subvention would authorize VA to bill Medicare for health care provided to Medicare-eligible, higher-income veterans who do not have compensable disabilities.

cost-based charges are often below VA's costs but exceed such levels in other instances. For example, VA currently charges $229—its estimated average nationwide cost for an outpatient visit—for both a brief office visit and outpatient surgery. For inpatient stays in the surgical bed section, VA charges $2,079 per day, regardless of the treatment.[2]

VA took guidance from the Conference Report (H.R. 105-217) that indicated reasonable charges should resemble market pricing for health care services. VA interpreted this to mean that reasonable charges should be based on charges to payers in local markets. Setting reasonable charges according to the market could allow VA to receive revenues in excess of VA's costs. Such reasonable charges would not necessarily reflect market payments because, as VA recognized, charges serve as asking prices in the marketplace and often exceed final payments.

VA Used a Sound Methodology to Set Charges

In establishing its reasonable charge rule, VA wanted to directly reflect local market charges for all services in all locations, but these data were not available. VA instead selected a methodology that used available data to set local charges indirectly. Specifically, VA estimated the 80th percentile of charges submitted by nonfederal providers to insurers nationwide, then adjusted these nationwide charges—using a geographic adjustment factor that it developed—to local market prices at each VA facility location. Using available data in this way, VA was able to set charges for hundreds of medical diagnoses groups and thousands of procedures at many locations.

VA used various data sources as needed to set the charges. Inpatient facility charges, for example, were estimated nationwide using 1995 charge data from both Medicare and MedStat databases.[3] VA's methodology applied hospital components of the Consumer Price Index to project these charges forward to a 1998 to 1999 billing period. VA also used the Medicare and MedStat data to develop its geographic adjustment factors. (See app. II for a detailed description of VA's methodology and data sources.)

[2]In special cases, such as for care furnished in a medical emergency or to certain beneficiaries of the Department of Defense or other federal agencies, VA will continue to use reasonable cost charges after implementing reasonable charges.

[3]The Medicare data represented the amounts Medicare was charged from claims paid for a 5-percent sample of beneficiaries in 1995. The MedStat data represented 1995 claims data from over 200 insurance companies for over 7 million beneficiaries.

In our view, setting charges at the 80th percentile level is a reasonable strategy for optimizing revenue. By setting charges at this level, VA can expect to receive insurers' usual payments even when they are more than average charges, with the exception of those that exceed the 80th percentile.[4] Payers whose usual payments are lower are protected by a statutory provision (38 U.S.C. 1729(c)(2)(B)) that limits their liability to the amount they would pay to nonfederal facilities in the same area for the same care or services provided. Assuming that insurers will pay no more than their usual payments, this provision essentially reduces VA's charges to local market prices when the charges exceed those levels.

We anticipate that VA's method generally estimates above-average local-market charges for services, as was intended. We confirmed that, at least for inpatient facility charges, the method generally results in above-average market charges, although not always at the 80th percentile. We reviewed charges for eight selected diagnosis related group (DRG) codes in five metropolitan areas.[5] For these 40 charges, we found that 70 percent of VA's charges fell between the 50th and 80th percentile of charges and another 12.5 percent of the charges fell above the 80th percentile. However, the remaining 17.5 percent of charges fell below the 50th percentile. For example, the 50th percentile charge for major joint and limb reattachment procedures for the lower extremity (DRG 209) is about $3,300 per diem in the Baltimore metropolitan area, while the corresponding VA reasonable charge is about $2,700.

Although the insurer's option to pay usual payments can reduce higher VA charges to a particular insurer's market prices, there is no mechanism to raise VA's charges if they fall below an insurer's usual payments. This is important because our analysis suggests that some reasonable charges fall well below the 80th percentile and, therefore, are more likely to fall below insurers' usual payments. VA is seeking assistance from a contractor on how to measure whether its charges fall below payers' usual payments. Appropriate monitoring should reveal the extent to which collections are

[4]VA considered using Medicare's payment schedule to set its charges but decided those rates would be too low to ensure insurers' payments at their usual amounts. For example, a study by the Physician Payment Review Commission found that in 1995, Medicare paid physicians roughly 68 percent of average private payer rates (Annual Report to Congress, 1995, p. 83).

[5]Confirming the reasonableness of VA's new charges is limited by insufficient data for all services in all places, which led VA to abandon a direct measurement of local market charges. To ensure sufficient data, we limited our selective examination to (1) VA facilities in five large metropolitan areas (New York, Los Angeles, Chicago, Baltimore, and San Francisco) and (2) eight DRG conditions—such as heart failure and shock, coronary bypass, and rehabilitation—which accounted for about 18 percent of all veteran admissions in fiscal year 1997.

below market payments and provide a way of identifying where VA charges need to be modified to better reflect market prices.

Effects of New Charges Uncertain, and Implementation Challenges Remain

VA views reasonable charges as an opportunity to increase its revenue collections. This will occur to the extent that the total payments to VA under the new reasonable charge billings are greater than those VA would have received from billing the old reasonable cost charges for the same health care. To accurately predict and compare these two total payments, VA would need data on the volume of services it would deliver and, for those services, the change in payment from the cost-based system to the charge-based system. For example, an outpatient surgery to repair a hernia would result in a single-visit, all-inclusive charge under reasonable cost billing, whereas it would create two physician charges and an outpatient facility charge under reasonable charge billing. In addition, estimated payment levels resulting from the various charges would also be needed to compute total payments for each set of old and new charges.

Although VA tentatively estimated that the shift to reasonable charges would increase its revenue by $44 million in 1999,[6] it acknowledged that the amount cannot be accurately predicted. We agree for several reasons. First, the data that are critical to an accurate prediction—especially data on the procedures and diagnoses codes for veterans' care that would aid predicting the reasonable charges that will be billed—are not readily available. VA also does not have a history of payments that would result from reasonable charges. Moreover, VA lacks data on the types of insurance veterans have. This is critical data for predicting payments because insurers' liability is limited to the terms of their coverage. For instance, over half of VA's billings have apparently gone to Medicare supplemental insurers, but reasonable charges will not typically affect the Medicare deductibles and coinsurance received as payments from these insurers.

VA's potential revenue will also be affected by its ability to overcome past collection problems. Three recent studies have highlighted several inefficiencies in VA's collection operations, such as slow billing, inadequate follow-up of delinquent accounts receivable, significant errors and rework,

[6]Reasonable charges will actually have only a limited impact on collections this fiscal year because implementation has been delayed until Sept. 1, 1999.

and ineffective use of available automation.[7] VA revenue will further be affected by its ability to manage the effects of demographic and health care trends. The declining number of veterans—from 25.1 million in 1998 to an estimated 23.1 million in 2003—will reduce the pool of veterans who could be served, and the aging of the veteran population will likely increase the number of veterans with Medicare or Medicare supplemental insurance. In addition, if veteran enrollment in managed care follows the insurance industry's trend, VA may face a situation where it cannot collect revenue for a growing number of veterans. (VA is generally not a participating provider in managed care plans and, therefore, under typical health maintenance organization and other managed care insurance contracts, cannot expect to collect from them for nonemergency services.)

VA also faces some challenging new tasks for administering its new reasonable charges billing system. For example, VA will have to prepare accurate bills for the specific services furnished and support these coded charges with documentation if insurers ask for additional information. Before implementation, VA plans to test its ability to produce reasonable charge bills in a format that insurance companies can process. VA will also examine the adequacy of training provided to intake clerks, physicians, and collection staff to ensure accurate coding and documentation. A second challenge will be verifying that it is receiving appropriate payments from insurers when insurers pay usual payments rather than billed charges. Neither the law nor VA's regulations give criteria for determining appropriate payment when insurers make different payments to different providers in the same geographic location. VA's decentralized system of verification is intended to give local employees flexibility in working with particular insurers and relies on local employees' determination of what constitutes insurers' usual payments. VA officials stated that VA plans to have a contractor assist in developing recommendations for selecting insurers for verification.

Although the effect of the reasonable charge structure on VA's revenue and insurers' costs is uncertain, it will not affect the copayments and per diem obligations required by VA for certain veterans. These payments are set by statute—the Veterans' Health-Care Amendments Act of 1986 (P.L. 99-272). The copayment for inpatient hospital and nursing home care is based on the Medicare deductible, while the copayment for outpatient care is based on the VA-wide estimated average cost of an outpatient visit. Similarly, the per diem payments for hospital and nursing home care added by the

[7]Office of Inspector General, VA, Audit of the Medical Care Cost Recovery Program (July 10, 1998); Coopers & Lybrand, VA MCCR National Study (Jan. 1998); and VA Medical Care: Increasing Recoveries From Private Health Insurers Will Prove Difficult (GAO/HEHS-98-4, Oct. 17, 1997).

Omnibus Reconciliation Act of 1990 (P.L. 101-508) are set independently from reasonable charges. While the obligations for veterans are independently set from reasonable charges, the amount collected from insurers under reasonable charges may reduce insured veterans' actual payments to VA. A recent VA directive states that insurance recoveries will be used to reduce insured veterans' copayment obligations, in part or full.[8] Thus, when this occurs, veterans' payments to VA—as well as VA's net collections—will be reduced.

Conclusions and Recommendations

In our opinion, VA used a sound methodology to replace its cost-based system with a charge-based system that better resembles market prices for thousands of procedures and hundreds of diagnoses groups. Setting these charges at the 80th percentile level helps VA ensure that its reimbursements are not less than the amounts insurers usually pay other providers. Although VA anticipates increased revenues from insurers as a result of billing reasonable charges, VA does not have adequate data to estimate the effect of reasonable charges on VA revenue and corresponding insurer cost. However, reasonable charges will not affect veterans' copayment and per diem obligations.

By increasing alternative revenues, reasonable charges are expected to play a key role in VA's plans to expand and improve health care for veterans without increasing appropriations through fiscal year 2002. However, several factors could limit the contribution that reasonable charges make to VA revenue collections, such as VA's inability to collect routinely from certain insurers (for example, health maintenance organizations and Medicare) and its ability to overcome past collection problems. In addition, VA's method will likely set some reasonable charges below market prices, that is, below insurers' usual payments. To the extent that this may occur, VA will collect less than other providers. Moreover, VA will be vulnerable in instances where insurers pay less than their usual payments because VA currently does not have standardized procedures in place to ensure that insurers' payments are appropriate if less than reasonable charges.

To help ensure that VA does not forego some of the amount that insurers usually pay other providers for the same service in the same locality, we recommend that the Secretary of Veterans Affairs establish and implement policy and procedures to (1) monitor reasonable charges and identify those that should be increased to conform with local market prices and

[8]Veterans Health Administration, Directive 99-014 (Apr. 1, 1999).

(2) verify the appropriateness of insurers' payments when they pay an amount less than VA's reasonable charges.

Agency Comments

VA was unable to provide comments on a draft of this report within the abbreviated time period available. It said it will provide comments on this report at a later date.

We are sending copies of this report to the Honorable Togo D. West, Jr., Secretary of Veterans Affairs, and other interested parties. We will also make copies available to others upon request.

Please contact me at (202) 512-7101 or Shelia Drake, Assistant Director, at (202) 512-7172 if you or your staff have any questions concerning this report. Other GAO staff who made major contributions to this report are Terry Hanford and Sandra Davis.

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Director, Veterans' Affairs and
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Contents

Letter 1

Appendix I Scope and Methodology 12
Comparison With Local Market Charges 12

Appendix II VA's Methodology for Setting Reasonable Charges 14
Methodology for Determining Rates and Adjustment Factors 15
Formulas for Facility-Specific Charges 19

Tables
Table II.1: VA's Reasonable Charge Categories and Services Covered 15
Table II.2: Estimating Average National Charges by Categories of Charges 16
Table II.3: Estimating the 80th Percentile by Categories of Charges 17
Table II.4: Trending Charges Forward by Categories of Charges 18
Table II.5: Geographic Adjustment Factors by Categories of Charges 19

Abbreviations

BBA	Balanced Budget Act of 1997
CF	conversion factor
CMSA	consolidated metropolitan statistical area
CPI	Consumer Price Index
CPT	current procedural terminology
DRG	diagnosis related group
MSA	metropolitan statistical area
RVU	relative value unit
SNF	skilled nursing facility
VA	Department of Veterans Affairs

Scope and Methodology

To assess the soundness and potential effects of VA's methodology for setting reasonable charges, we reviewed documentation on the methodology and met with VA's contractor, Milliman & Robertson, Inc., to gain an understanding of the key assumptions and decisions in its development of the methodology. We also discussed the methodology with VA officials as well as health care experts at the Health Care Financing Administration and the Medicare Payment Advisory Commission. In addition, we reviewed the six public comments VA received on its proposed rule. Because our objective was to assess the reasonableness of the methodology, we did not gather new data on charges, test the reliability of the contractor's data, or independently verify calculations.

The following sections discuss how we compared reasonable charges with local market charges as a partial check of the ability of VA's method to produce charges at above-average levels.

Comparison With Local Market Charges

We limited our comparison of reasonable and local market charges to inpatient facility charges because we had ready access to Medicare data upon which VA inpatient facility charges are partially based. Because VA's contractor told us that inpatient facility per diems calculated on the Medicare data and calculated on the commercial data were roughly equivalent, our use of only the one data source should be a minor source of difference between our results and VA's. Outpatient facility, physician, and nonphysician charges are based on private data sources. We also limited our examination to eight diagnosis related group (DRG) conditions commonly treated at VA and five large metropolitan areas to ensure that we had sufficient data to analyze.

Because we judgmentally selected both the locations and DRGs, our analysis is not generalizable to all inpatient facility charges at all VA facilities. It does serve, however, to illustrate the extent to which some reasonable charges fall within a range of above-average local market charges. Because the available VA data were for all admissions in fiscal year 1997, we could not assess whether the eight DRGs we examined were also the most common types of admissions for insured veterans.

Selecting Locations and Charges

For this analysis, we selected large VA facilities in metropolitan areas because we assumed that areas with high populations would provide a sufficient volume of local market charges for our analysis. The facility

locations are New York, West Los Angeles, Chicago, Baltimore, and San Francisco.

We analyzed eight DRGs. Seven of these had been identified in a previous VA analysis as being frequent conditions treated in VA hospitals during fiscal year 1997: three in medicine (DRG 88, chronic obstructive pulmonary disease; DRG 89, simple pneumonia and pleurisy; and DRG 127, heart failure and shock); three in surgery (DRG 107, coronary bypass; DRG 112, percutaneous cardiovascular procedures; and DRG 209, major joint and limb surgery, lower extremity); as well as DRG 462, rehabilitation. We added DRG 430, psychoses, to our analysis because we found that this single condition accounted for almost 7 percent of VA admissions in fiscal year 1997.

Comparison

To examine where a reasonable charge fell in the range of local market charges for a service, we computed the reasonable charge and the deciles[9] of local market charges. We computed reasonable charges based on VA's directions in its proposed rule on reasonable charges. We estimated local market charges based on 1997 Medicare Provider Analysis and Review data, which include records for 100 percent of Medicare beneficiaries who used hospital inpatient services, whereas the VA reasonable charges were based on a 5-percent sample of 1995 Medicare data and private sector data from over 200 insurers and other sources. We calculated decile distributions for inpatient-facility per diem charges for each DRG code at each of the five locations. (Because the Medicare data we analyzed was for 1997, we trended these decile points forward to March 1, 1999, as VA did for reasonable charges.)

Next, we identified where reasonable charges fell between decile points of local market charges. If a reasonable charge fell above the fifth decile point (or 50th percentile) and was not greater than the eighth decile point, we classified the charge as above average and not exceeding VA's intended 80th percentile level. We then calculated the percentages of reasonable charges falling into, above, and below this range.

[9]A decile is a percentile of 10, 20, 30, and so forth.

VA's Methodology for Setting Reasonable Charges

VA established reasonable charges for five categories of charges: (1) inpatient facility, (2) skilled nursing facility (SNF)/subacute inpatient facility, (3) outpatient facility, (4) physicians, and (5) nonphysician providers (see table II.1). Because reasonable charges are designed to approximate local charges, all categories of charges vary by VA facility locations. Billings for inpatient facilities and SNFs are on a per diem basis, and, for inpatient facility charges, the per diem charges vary by the treated condition as classified by DRG codes. Billings for outpatient facility and provider charges vary by procedure performed, as classified by current procedural terminology (CPT) codes.

To establish reasonable charges for each category of charges, VA estimated local market charges. VA's methodology develops nationwide rates and geographic and other adjustment factors to make these estimations. The method yields tables of data that include nationwide charges by hundreds of DRGs, nationwide charges and conversion factors by several thousand CPTs, and various groups of geographic adjustment factors by VA facility locations. (See 63 Fed. Reg. 54766.) To calculate facility-specific reasonable charges, various billing formulas will be applied to the data from the tables. Below we describe, first, VA's method for determining the rates and adjustment factors for reasonable charges and, second, the formulas for calculating facility-specific charges based on these rates and factors.

Table II.1: VA's Reasonable Charge Categories and Services Covered

Category	Services covered	Charge structure
Inpatient facility	Hospital room and board and ancillary services	Per diem (daily) charges that vary by about 500 DRG codes[a] and VA facility
SNF/subacute inpatient facility	Care, including skilled rehabilitation, and associated ancillary services provided under a physician's orders in a nursing home or hospital inpatient setting and performed by or under the general supervision of professional personnel, such as registered nurses	Per diem charges that vary by VA facility
Outpatient facility	Facility and ancillary procedures not customarily performed in a private clinician's office, such as some ambulatory surgeries and diagnostic magnetic resonance imaging	Charges vary by about 3,900 CPT codes[b] and VA facility
Physician	Medical procedures performed in an inpatient or outpatient setting	Charges vary by about 7,400 CPT codes and by VA facility
Nonphysician (nurse practitioner, clinical social worker, dietitian, and others)	Procedures performed in an inpatient or outpatient setting	Charges are a percentage of physician charges

[a]DRG codes classify patients on the basis of diagnoses groups, such as diabetes or extensive burns, that are expected to require the same amount of resources to treat.

[b]CPT codes identify the service or procedure performed by a physician.

Methodology for Determining Rates and Adjustment Factors

VA developed all categories of charges following the same general model: (1) nationwide rates were established at the 80th percentile of billed charges of private providers, and (2) geographic adjustment factors were estimated to adjust nationwide rates to VA facility location charges. However, VA's methodology for determining reasonable charges is actually various methodologies used to determine rates and adjustment factors for five categories of charges. The methodologies use different data sources and calculations to derive these rates and various adjustment factors. (Charges for nonphysician providers are not discussed here because the charges are calculated in the same way as charges for physicians, except that a percentage adjustment is applied depending on the type of

nonphysician provider.) Additional details about the methodology may be found in VA's proposed and final rule for reasonable charges.[10]

Nationwide Charges

Generally, nationwide charges were developed in three stages. First, average nationwide charges were estimated. Second, the nationwide charges were adjusted to an 80th percentile level of charges. Third, the charges were projected forward to account for changes in charge levels between the time of the baseline data and the future billing period. However, the physician charges were developed differently—rather than estimating an average charge and then adjusting it to the 80th percentile, the calculation of physician charges began with 80th percentile charges. Also, the charges based on CPT codes—outpatient facility and physician charges—involved additional calculations that aligned charges with relative value units (RVU) associated with the CPT codes. (RVUs serve to weight services according to their relative work effort and other factors.)

Average Nationwide Charges

VA first estimated a base national rate by calculating an average charge. A mean was calculated for inpatient facility and SNF/subacute inpatient facility charges, and a median was calculated for outpatient facility charges because the underlying data were significantly influenced by extreme cases and a median is less sensitive than a mean to extreme cases. In addition to these calculations, the inpatient facility charge for each DRG was split into a room and board component and an ancillary service component (see table II.2).

Table II.2: Estimating Average National Charges by Categories of Charges

Inpatient facility	SNF/subacute inpatient facility	Outpatient facility	Physician
Calculations			
Mean per diem charges by DRG, weighted average from two data sources	Mean per diem charge for SNF care	Median charges by CPT procedure codes	Not applicable
Data sources			
1995 Medicare and 1995 MedStat data for total charges and days of stay	1998 Milliman & Robertson, Inc., Health Cost Guidelines	1995 MedStat data for billed facility charge	Not applicable

Data were taken from public and private sources. The Medicare data are taken from paid claims for a 5-percent sample of beneficiaries. The MedStat data reflect claims data from over 7 million employees and dependents covered by the health benefit programs for large employers

[10] 63 Fed. Reg. 54756 and 64 Fed. Reg. 22675.

and collected from over 200 different insurance companies, Blue Cross and Blue Shield plans, and third-party administrators. The MedStat data do not include Medicare, Medicaid, or Workers' Compensation data. The Milliman & Robertson nationwide data on SNF care are derived from the Health Care Financing Administration's Medicare claims data.

80th Percentile Adjustment

VA's methodology generally uses ratios to adjust national averages to 80th percentile charges. Physician charges at the 80th percentile were extracted from already calculated levels in a nationwide commercial insurance database (see table II.3).

Table II.3: Estimating the 80th Percentile by Categories of Charges

Inpatient facility	SNF/subacute inpatient facility	Outpatient facility	Physician
Calculations			
(1) Average of consolidated metropolitan statistical areas (CMSA) ratios: 80th percentile semiprivate room and board per diem charge divided by the average per diem for CMSAs; (2) ratio applied to both room and board and ancillary services components	(1) Average of state ratios: 80th percentile of SNF provider median charges divided by the average of statewide accommodation charges; (2) multiply ratio by average national charge	(1) Divide CPT codes into 37 groups; (2) for each code group, divide the 80th percentile by the median charge; (3) if the ratio exceeds 115 percent, then cut excess percentage by half; (4) for each code group, multiply associated ratio by median national charges	80th percentile charges for representative CPT procedure codes split into 24 medical service groups
Data sources			
1995 Medicare data for medical and surgical admissions	1995 Medicare data	For four code groups, 1995 MedStat data; for all other code groups, 1996 MediCode data[a]	Health Insurance Association of America data on 80th percentile charges, various dates[b]

[a]MediCode is a database of outpatient facility charges gathered from numerous commercial sources.

[b]The Health Insurance Association of America compiles a nationwide commercial insurance database of provider charges based on millions of claims records.

Although not shown in table II.3, the first calculations for developing physician charges transform 80th percentile charge data into conversion factors, that is, monetary rates per RVU. VA constructed a conversion factor for each of 24 physician CPT code groups, such as inpatient visits, surgery, pathology, and anesthesia. The conversion factor (a dollar amount per RVU) for a group was computed by dividing the weighted average charge (at the 80th percentile level) by the weighted average RVU for the selected CPT codes.[11] Departing from Medicare practice, VA's method removes

[11]RVU data came from St. Anthony's Complete RBRVS (resource-based relative value scale) and other sources.

charges for the malpractice component since the costs associated with malpractice are not the responsibility of VA.

Trending Charges Forward

Because the charge data were gathered at various times in the past and charges can be anticipated to change over time, VA trended the data forward to approximate charges during its anticipated first year of implementing reasonable charges—August 1998 through September 1999. Its general methodology was to identify indexes of relevant price trends and then estimate the price changes between the time of VA's baseline data and the midpoint of the charge period. As shown in table II.4, various components of the Consumer Price Index (CPI) were generally the data source for the indexes. (The CPI-U series covers all urban consumers, whereas the CPI-W series covers urban wage earners and clerical workers.)

Table II.4: Trending Charges Forward by Categories of Charges

Inpatient facility	SNF/subacute inpatient facility	Outpatient facility	Physician
Calculations			
Projected price change from 1995 to midpoint of VA charge period (Aug. 1998 to Sept. 1999) multiplied by the adjusted 1995 80th percentile charges	Projected change in Medicare reimbursement for SNF from July 1, 1998, to midpoint of VA charge period multiplied by the adjusted July 1, 1998, 80th percentile SNF charge	Projected price change from 1995 to midpoint of VA charge period multiplied by 1995 adjusted 80th percentile charges	Projected price change from various 1996 to 1997 dates to the midpoint of VA charge period multiplied by adjusted 80th percentile conversion factors
Data sources			
CPI-W, hospital room and other hospital components (1995 to Jan. 1997); CPI-U, inpatient hospital component (Jan. 1997 and forward)[a]	Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund	CPI-U, outpatient hospital component	CPI-U, physician component

[a]In January 1997, the Bureau of Labor Statistics revised CPI's hospital components.

The outpatient facility nationwide charges reflect one more adjustment (not indicated in table II.4). After trending forward, the outpatient charges were adjusted to make them relative to the RVUs within each of the 37 outpatient facility CPT code groups.

Geographic Adjustment Factors

Because the objective of reasonable charges is to bill at rates commensurate with local market charges, VA's methodology produces geographic adjustment factors to transform nationwide rates into VA facility-specific charges. As shown in table II.5, these adjustment factors are derived by creating a ratio of local charges to national charges. These

ratios differ in the boundaries placed around VA facility areas (metropolitan statistical area (MSA), three-digit zip code, or state) and data sources.

Table II.5: Geographic Adjustment Factors by Categories of Charges

Inpatient facility	SNF/subacute inpatient facility	Outpatient facility	Physician
Calculations			
Ratio: average per diem charges for each VA facility area (MSA) divided by the national average—both averages weighted by national average length of stays and fiscal year 1997 VA discharges; four adjustment ratios: for surgical and nonsurgical DRGs and, within these, for room and board and ancillary components	Ratio: average per diem for SNF charge for each state, divided by nationwide average per diem	For each VA location, average of two outpatient area adjustment factors: (1) ratio of levels of charges for the VA facility area (MSA) compared to nationwide and (2) ratio of CPT-weighted average charge level for each VA facility area (three-digit zip code) divided by the nationwide CPT-weighted average charge	(1) Conversion factor (CF) adjustment for each VA location (three-digit zip code area) and procedure code group; ratio of facility-specific CF divided by nationwide average CF; (2) RVU adjustments: area adjustments for work units and practice units
Data sources			
1995 Medicare data on per diem charges; fiscal year 1997 VA data on its nationwide discharges by DRG; Medicare and MedStat data on average lengths of stay	Milliman & Robertson, Health Cost Guidelines	Milliman & Robertson, Health Cost Guidelines, and MediCode data	Facility-specific CF calculated with same data as nationwide CF, and Medicare area adjustments for RVU components

Other Adjustments

VA established two other important adjustments to reasonable charges based on precedence to make them consistent with industry practices. First, the progressive reductions of outpatient facility charges for multiple surgeries—that is, charges are 100 percent of the most expensive procedure, 25 percent of the second most expensive procedure, 15 percent of the third most expensive procedure, and 0 percent for all other procedures—were derived from an analysis of MedStat charge data. According to VA's contractor, these reductions are consistent with the reasonable and customary charges recommended by MediCode. Second, most adjustments of charges for nonphysician providers—as a percentage of physician charges for performing the same services—were based on Medicare percentages, when available.

Formulas for Facility-Specific Charges

To determine the amount to bill insurers under reasonable charges, a VA facility will use a formula appropriate to the category of charge. (A single encounter may involve multiple categories of charges. An ambulatory surgery, for instance, could result in an outpatient facility charge as well as

physician and nonphysician provider charges.) The formulas adjust a nationwide charge to a locality charge for specific VA facility locations by applying data from tables of national dollar amounts, geographic adjustments, and other factors. For inpatient facility charges or SNF/subacute inpatient facility charges that are based on per diem rates, calculating total charges also requires data on the number of days in the stay.

- Inpatient facility charge: First, a nationwide room and board per diem charge for a specific DRG is multiplied by the geographic adjustment factor specific to the VA facility. Second, the same calculation is done for the ancillary component of the per diem charge. Third, the two geographically adjusted per diem components are summed, resulting in a dollar amount which equals the combined per diem facility charge. Finally, this combined facility charge is multiplied by the number of days of stay, which produces the total inpatient facility charge. When more than one condition is treated during a hospitalization, total charges are the sum of the charges that are computed for each of the DRG conditions by allocating the days of stay between the DRGs.
- SNF/subacute inpatient facility charge: A per diem facility rate is calculated by multiplying a national rate by a geographic adjustment factor. Then the total charge equals the per diem rate multiplied by the number of days in the stay.
- Outpatient facility charge: For those outpatient procedures for which VA has established outpatient facility charges, a facility-specific outpatient facility charge is computed by multiplying a nationwide CPT procedure rate by a geographic adjustment factor. If multiple surgical procedures occur during the same outpatient encounter, then no more than the three most expensive outpatient facility charges for surgery will be billed, and the second and third of these are discounted to 25 percent and 15 percent, respectively.
- Physician charge: Charges are calculated for procedures in one of three ways. For most CPT codes—which have both work expense and practice expense RVUs—physician charges are calculated by summing these RVUs (adjusted for facility location and by a Medicare work expense adjustment factor), then multiplying this sum of adjusted RVUs by a facility-adjusted conversion factor (a dollar amount per RVU). For CPTs with only total RVUs available, charges are equal to the facility-adjusted RVUs multiplied by the dollar amount of a facility-adjusted conversion factor. Finally, for pathology and anesthesia charges, a nationwide charge for a CPT code is multiplied by a geographic adjustment factor.

- Nonphysician provider charge: These charges are a percentage (up to 100 percent) of the charge for the same procedure performed by a physician, depending on the type of nonphysician provider. For example, a procedure done by a nurse practitioner would be billed at 85 percent of the charge for a physician doing the procedure.

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