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**Assessing the Impact of the Balanced Budget Act of 1997 (BBA '97)
On the Financial Status of COTH Member Hospitals:
Methodology Summary**

The Balanced Budget Act of 1997 (BBA '97 or BBA) contained numerous changes to the Medicare program, many of which affect hospital payments. The AAMC has analyzed the impact of the BBA on the Council of Teaching Hospitals and Health Systems (COTH) revenues and financial status by simulating its effects between 1996 and 2002. This document summarizes the methodology for this simulation.

Most of the provisions of the BBA began to take effect in Federal fiscal year (FFY) 1998 (October 1, 1997). Some of the provisions are phased in over a five-year period; all of the provisions are to be fully implemented by 2002. Financial data for the analysis were obtained from the Medicare Hospital Cost Report Information System (HCRIS) which contains data from all hospitals participating in the prospective payment system (PPS) for hospital fiscal years ending between September 30, 1996 and October 1, 1997 ("PPS 13"). The basic approach of the analysis was to project what Medicare reimbursement would have been during each year between 1996 and 2002 if the BBA changes had not been implemented ("status quo"), and contrast these reimbursement levels with projections of reimbursement under the BBA. For analyses of dollar losses under the BBA, the impact was expressed as the difference in Medicare payment projections under the "status quo" and "BBA" Medicare payment projections. Total margins under the BBA were calculated by adding estimated Medicare payments to estimated non-Medicare payments and subtracting Medicare and non-Medicare estimated costs. Medicare payments were estimated using the parameters specified in the BBA. Actual values were used for costs where possible. All future costs and non-Medicare payments were incremented by the Health Care Financing Administration's (HCFA) projected hospital inpatient market basket inflator each year.

Simulation results are presented for three categories of hospitals: COTH members, other teaching hospitals, and non-teaching hospitals. For several of the simulations, results for teaching hospitals (COTH and other teaching combined) were differentiated by whether they had an intern/resident-to-bed (IRB) ratio of greater than or less than 0.25.

In interpreting the analysis projections, it is important to remember several features of the simulation:

- The BBA changes included in this analysis were isolated as the sole source of modifications to revenue and financial status. All other features of the financial

environment were held constant; that is, non-Medicare payments (Medicaid and private-payer) were assumed to be unchanged, except for inflation, throughout the five-year period.

- All revenues and expenses were projected to grow at the rate of increase for the HCFA hospital inpatient market-basket¹ over time, except where anticipated rates of growth were determined by provisions of the BBA.
- About half of PPS hospitals were excluded from the simulation² to make all the hospitals included in the analysis comparable to COTH hospitals. The resulting group of 2,116 hospitals included 261 general acute, non-federal COTH hospitals³, 699 other teaching hospitals, and 1,152 non-teaching hospitals.
- BBA changes occur on FFY cycles, which are frequently not the same as hospital fiscal years; thus, hospital cost report years often overlap two FFYs. The BBA effects were indexed to hospital fiscal years, so that the dates correspond to hospital fiscal years.
- The number of residents in teaching hospitals is assumed to be constant across the five-year period.

This analysis reflects certain BBA provisions that have a substantial impact on hospital payments. A complex simulation⁴ was used to project hospital-level impacts due to the PPS update reductions,⁵ indirect medical education (IME) payment reductions,⁶ and disproportionate share (DSH) payment reductions.⁷ These changes represent the majority of the BBA payment reductions. A less complex approach was applied for the projections involving capital payments,⁸ the effects of the transfer redefinition,⁹ elimination of the outpatient formula-driven overpayment,¹⁰ and movement to an outpatient PPS.¹¹ The simulation does not yet include estimates of outlier changes, bad debt payment reductions, or reductions in payments to PPS-exempt subproviders, skilled nursing facilities (SNFs) and hospital-based home health agencies.

Actual values for payments and costs were included in the simulation wherever possible (for example, actual PPS standardized operating amounts were available for 1996-1999). Other simulation values were set as specified in the BBA. (For example, Medicare disproportionate share payments are progressively discounted, from 1 percent in 1998 to 5 percent in 2002.) Where no actual values were available, values were projected forward using projections from either HCFA or another source, or fixed at a constant value for the entire five-year period. For example, payments and costs were incremented by actual cost growth values from the American Hospital Association (AHA) annual survey until 1997 (the most recent data available). Each year thereafter, these values were incremented by the HCFA hospital inpatient market basket growth rate estimate for that year. The Medicare case mix index used in the analysis was fixed at the hospital-specific value estimated by HCFA for fiscal year 1999 payments (the midpoint of the five-year period).

Interpreting the Analysis Results

The impact of this analysis is best interpreted by comparing the amount that the BBA reduces Medicare payments relative to what those payments would have been if Medicare payment policies were unchanged through 2002. The results show the magnitude of the difference between the simulations' estimate of what payments in the future would have been in the absence of the BBA ("status quo") and the estimate of what the payments will be under the BBA.

It is important to remember that this analysis does not predict what total margins *will be* in 2002; but rather, it expresses the financial pressure that the Medicare reductions will place on hospitals' profitability under two payment policy scenarios. The actual margins in 2002 depend upon a number of factors, most important of which are changes in Medicaid and private sector payments, and hospitals' cost growth.

Impact of the Cost Growth Estimate

When making projections, this analysis assumed that hospital costs would grow at the projected increase in the hospital market basket. Actual costs have grown more slowly than the market basket increase estimate in recent years; consequently, others who have projected the impact of the BBA have included a cost growth assumption that is one percentage point less than the market basket increase. Clearly, the BBA will have a smaller negative effect on total margins than our analysis projects if the growth in hospital costs falls below the full market basket increase.

However, there are several reasons why it is more appropriate to assume that costs will grow at the rate of the market basket increase. First, many believe that recent trends (i.e., actual costs growing slower than the market basket) are in large measure the result of myriad "one-time" cost reduction efforts. Continuing to reduce costs in this fashion will be strongly resisted because such reductions would seriously damage the ability of teaching hospitals to perform their special missions of teaching, research, and service to the underserved. Second, some AAMC COTH member institutions report that their costs are beginning to rise sharply, in part due to rising pharmaceutical costs and a nursing shortage that is driving up labor costs. Thus, cost growth is likely to increase in the near future. Finally, it is important to remember that the recent trend of costs growing slower than the market basket is a new phenomenon. Historically, cost growth trends for hospitals have exceeded market basket estimates far more frequently than they have not. Consequently, our assumption of costs growing merely at the rate of inflation--i.e. the market basket increase--was deemed conservative.

Teaching Payments for Medicare Managed Care Enrollees

The BBA calls for Medicare to begin making IME and DGME payments that are associated with Medicare managed care enrollees treated by teaching hospitals, effective January 1, 1998. These payments are being phased in over 5 years in 20 percent annual

increments.¹² This analysis does not include any assumptions concerning these payments because it is not possible to make meaningful estimates.

The Congressional Budget Office (CBO) estimated Medicare managed care teaching payments as part of their BBA savings analysis;¹³ however, there are no corresponding impact estimates on patient care payments to teaching hospitals that result from BBA reductions to Medicare managed care payment rates. Consequently, including estimates of Medicare managed care teaching payments only, without a corresponding estimate of changes in Medicare managed care patient payments, would overstate the net payments teaching hospitals receive from Medicare managed care activity. Further, even if estimates about changes in payments to teaching hospitals for Medicare managed care patients were available, it is reasonable to assume that these estimates would reflect reductions, which would offset any additional teaching payments.

In addition, no data currently exist about the impact of the Medicare managed care teaching payments at the hospital level (CBO's estimates are national level). The number of Medicare managed care enrollees in a given market who are treated in teaching hospitals is not known and exceedingly difficult to estimate. Medicare managed care penetration is highly variable across the areas in which teaching hospitals are located, and it is unlikely that these figures reflect the number of Medicare managed care enrollees treated by hospitals, let alone teaching hospitals. Thus, accurate estimates of the scope of Medicare managed care payments at the hospital level--both teaching and patient care--are virtually impossible to calculate.

End Notes

¹ Inpatient hospital market basket growth projections: 1998, 2.7%; 1999, 2.4%; 2000, 2.7%; 2001, 2.6%; 2002, 2.6% (source: HCFA Office of the Actuary, personal communication)

² Rural hospitals, sole community provider hospitals, Maryland hospitals, and hospitals with fewer than 90 beds were excluded from the simulation. Hospitals with extreme values were excluded from any analyses involving the extreme variable.

³ The BBA impact simulation excluded COTH hospitals located in Maryland (because they are under a waiver from Medicare PPS) and Canada, as well as VA and PPS-exempt members. In addition, 16 general acute, non-federal COTH member hospitals were excluded because their data were not in the HCRIS PPS 13 dataset.

⁴ This methodology was based on a BBA impact model developed by the Greater New York Hospital Association.

⁵ PPS standardized operating amounts were reduced by actual amounts through FFY 1999. Thereafter, the updates were reduced by the estimated increases in the hospital market basket less 1.8 percentage points in FFY 2000; less 1.1 percentage points in 2001; and less 1.1 percentage points in 2002 (source: section 4401 of the BBA). Diagnosis-related group (DRG) per case payments were estimated using the PPS standardized operating amount that corresponds to each hospital, the FFY 1999 estimated case-mix index, and the FFY 1999 reclassified hospital wage index. For each hospital, per case payments were then multiplied by the number of Medicare cases, as increased by HCFA projections. These projections were: 1997, 1.8%; 1998, 0.5%; 1999, 0.8%; 2000, 0.7%; 2001, 0.8%, 2002, 1.0% (source: HCFA Office of the Actuary, December, 1998). Outlier payments were estimated by multiplying projected inlier payments by the 1996 ratio of outlier payments to inlier payments. Medicare inpatient case-level payment DRG payments equal the sum of projected inlier and outlier payments.

⁶ IME payment changes were determined by multiplying the projected DRG payment by the 1996 function of the intern/resident-to-bed ratio $[(1+IRB)^{405}]$ and then by the following IME multiplier as specified in the BBA: 1.89 in 1997; 1.72 in 1998; 1.6 in 1999; 1.47 in 2000; 1.35 in 2001; and 1.35 in 2002. (Source: Section 4621 of the BBA)

⁷ The information that determines the level of DSH payments (Medicaid days and Medicare SSI days) was assumed to be constant over the period. Methodologically, DSH payments in the status quo projections were based on the ratio relationship between DSH payments and DRG payments in 1996. These amounts were then reduced by the following percentages pursuant to the BBA: 1% in 1998, 2% in 1999, 3% in 2000, 4% in 2001, 5% in 2002. (source: Section 4403 of the Balanced Budget Act of 1997)

⁸ For the status quo scenarios, inpatient capital payments for all hospitals were increased according to HCFA estimates (1998, 3%; 1999, 1.8%; 2000, 0.5 %; 2001, 0.4%, 2002, 3.4%. For the BBA impact, the status quo amounts were reduced by 17.8 % (source: 63 Fed. Reg. at 41121 (July 31, 1998)).

⁹ Impact of change in the definition of “transfer”: hospitals \geq 100 or more residents (proxy for COTH hospitals), -0.6%; hospitals with <100 residents (other teaching), -0.7% non-teaching hospitals, -0.7% (source: HCFA impact analysis; 63 Fed. Reg. at 25681 (May 8, 1998)).

¹⁰ Impact of changing outpatient payment formulas (eliminating the “formula-driven overpayment”): Major teaching hospitals (IRB ratio \geq 0.25) (proxy for COTH hospitals), -8.0%; other teaching hospitals (IRB ratio <0.25), -8.6%; non-teaching hospitals, -9.4% (source: AAMC analysis of data in Medicare Payment Advisory Commission, Report to the Congress: Medicare Payment Policy at page 105, March, 1999)

¹¹ The analysis projects the impact of the hospital outpatient PPS effective FFY 2001, which corresponds to HCFA’s estimate as to when they expect the PPS to begin. The estimated impact of the outpatient PPS incorporated into hospitals \geq 100 or more residents (proxy for COTH hospitals), -9.4%; hospitals with <100 residents (other teaching), -1.8% non-teaching hospitals, -3.1% (source: HCFA impact analysis of outpatient proposed rule; 63 Fed. Reg. at 47603 (September 8, 1998)).

¹² 20 percent in 1998, 40 percent in 1999, 60 percent in 2000, 80 percent in 2001, and 100 percent in 2002 and thereafter. These amounts are being “carved out” of the Medicare managed care plan capitated rates on a similar phase-in schedule.

¹³ “Budgetary Implications of the Balanced Budget Act of 1997,” Congressional Budget Office, December 1997.