

Teaching hospitals fulfill social missions; they educate and train future medical professionals, conduct state of the art research, care for the nation's poor and uninsured people, and stand ready to provide highly specialized clinical care to the most severely ill and injured patients. As of 2000, one out of five hospitals¹ in the country is a teaching hospital. Over ninety percent of teaching hospitals are located in urban areas.

Teaching intensity is often measured by the ratio of interns and residents to beds. In this report, major teaching hospitals are those with an intern- and resident-to-bed ratio (IRB) of 0.25 (one resident for every four beds) or above and at least 50 beds, while other teaching hospitals include hospitals with an IRB of less than 0.25 or teaching hospitals with fewer than 50 beds.

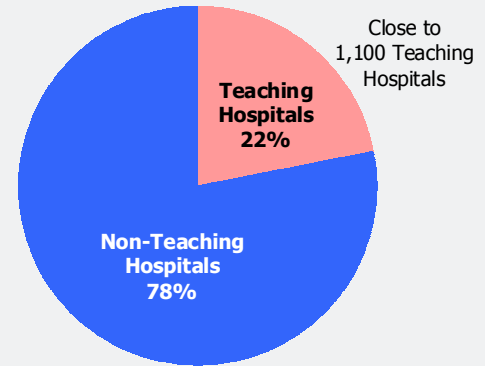
Recognizing that teaching hospitals play a valuable and multi-faceted role, health care payers have long supported the additional costs they incur in patient treatment. For example, Medicare Direct Graduate Medical Education (DGME), Indirect Medical Education (IME) and Disproportionate Share (DSH) payment adjustments compensate teaching hospitals for the higher costs that result from training health professionals, caring for complex patients, and treating a large share of low-income individuals. Historically, teaching hospitals also looked to private payers to help offset the higher costs associated with achieving their social missions.

In the 1990s, however, a number of factors combined to weaken the financial status of teaching hospitals. The rapid growth of managed care increased the level of price competition among hospitals, and teaching hospitals experienced a decline in private payments relative to costs. At the same time, the proportion of uncompensated care was increasing. Compounding problems in the private sector, the Balanced Budget Act of 1997 reduced Medicare and Medicaid payments. According to MedPAC, in 1999, 43 percent of all major teaching hospitals and 31 percent of other teaching hospitals were operating in the red.

This issue of TrendWatch highlights the role of teaching hospitals and the current and future challenges they face in trying to sustain their social missions.

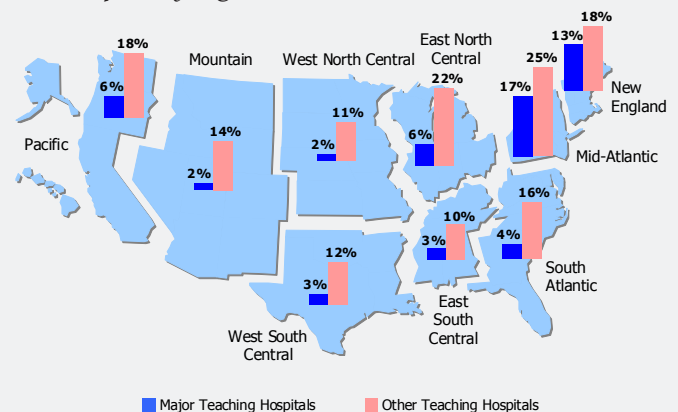
One out of five hospitals plays a role in teaching...

Chart 1: Teaching Hospitals as a Percentage of All Hospitals, 2000



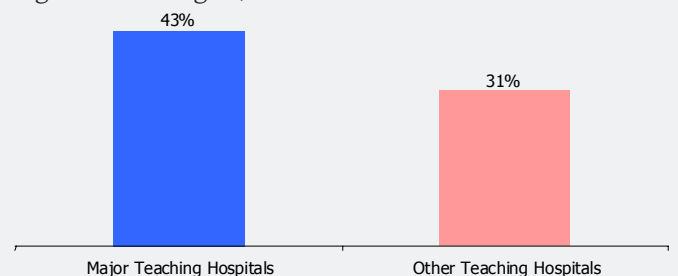
...serving every region of the country...

Chart 2: Major and Other Teaching Hospitals as a Percentage of Total Hospitals by Region, 2000



...in the face of significant financial pressures.

Chart 3: Percentage of Major and Other Teaching Hospitals with Negative Total Margins, 1999



“Teaching hospitals ... are committed to maintaining their social missions of research, medical education, and providing care to the poor and uninsured. Needless to say, this places them at a financial disadvantage.”

David Blumenthal, Director of the Institute for Health Policy at MGH/Partners Health Care

We gratefully acknowledge the contributions of the Association of American Medical Colleges in preparing this document.

Teaching Hospitals Fulfill Unique and Critical Community Roles

Teaching hospitals provide training to over 75,000 medical and dental residents each year, and major teaching hospitals in particular, carry a heavy load of uncompensated care.

Chart 4: Medical and Dental Residents in Training in Community Hospitals (in thousands), 1980-2000

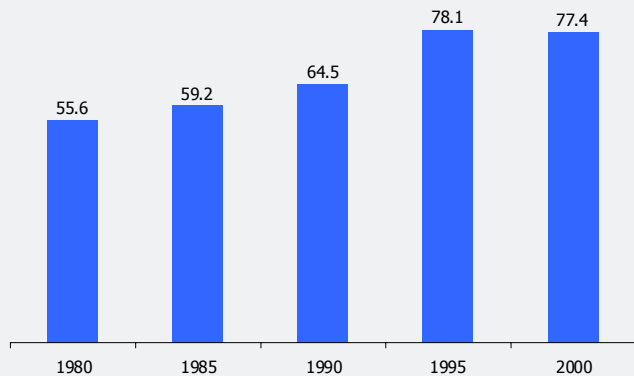
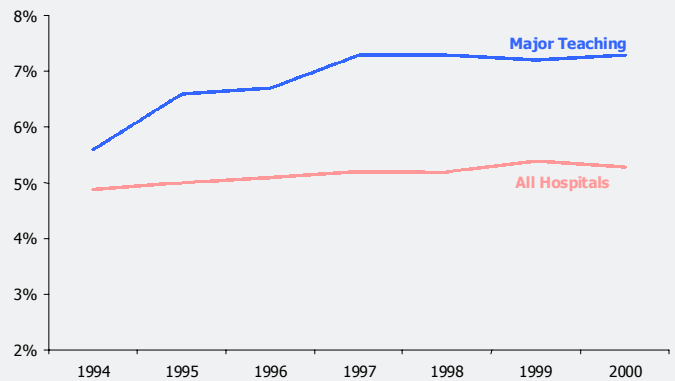


Chart 5: Uncompensated Care Costs¹ as a Percentage of Total Expenses by Teaching Status, 1994-2000



Capacity for highly specialized services and advanced technology is concentrated in teaching hospitals where the most medically complex patients are served.

Chart 6: Percentage of Hospitals Offering Services that are Teaching Hospitals, 2000

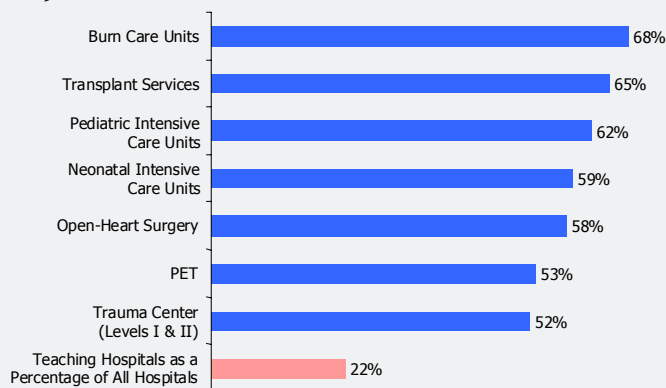
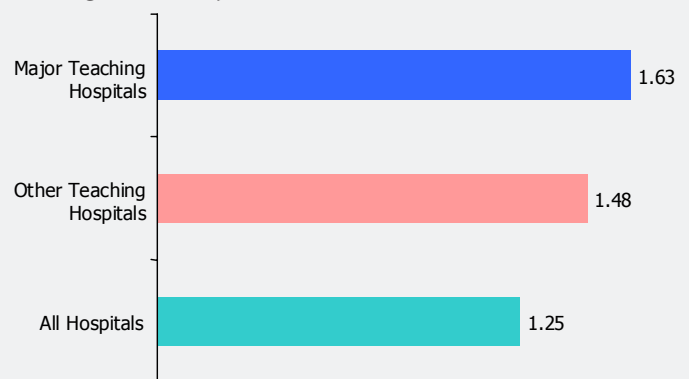


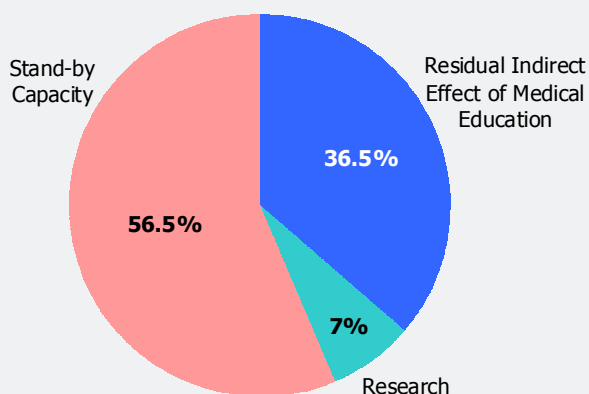
Chart 7: Average Medicare "Case Mix" Index* for Major and Other Teaching and All Hospitals, 1999



**Case Mix" Index of 1.25 represents an average mix of patient complexity across all hospitals

Stand-by capacity makes up over half of the added costs related to teaching hospitals' missions.

Chart 8: Distribution of Mission-Related Costs for All Teaching Hospitals, 1998



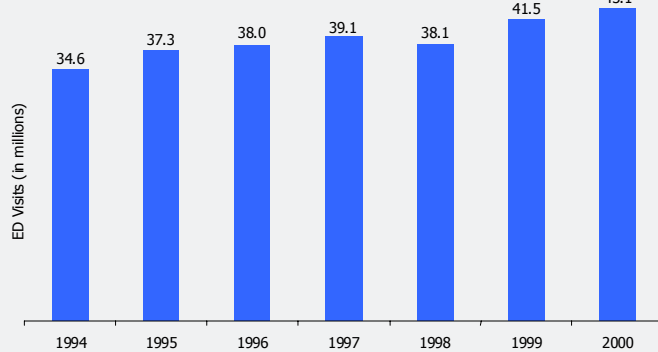
Hospitals stand ready 24 hours a day, seven days a week to deliver services to their communities. For teaching hospitals, this "stand-by" capacity often includes highly specialized services—burn, transplant, neonatal care, major trauma, and others—to handle the most critically ill and injured patients. This capacity is costly to maintain, but vital to the communities and regions these hospitals serve. Teaching hospitals also conduct clinical research into new procedures, technology, and medications.

Mission-related activities contribute to costs (excluding uncompensated care costs) that are on average 28 percent higher² than the costs of urban non-teaching hospitals.³ This cost difference rises as teaching intensity increases. After adjusting for case mix and wage variation, stand-by capacity makes up 56.5 percent of the remaining cost difference, according to a study by The Lewin Group for the Commonwealth Fund (not yet released).

Emergency Department Overload Reflects Teaching Hospitals Under Strain

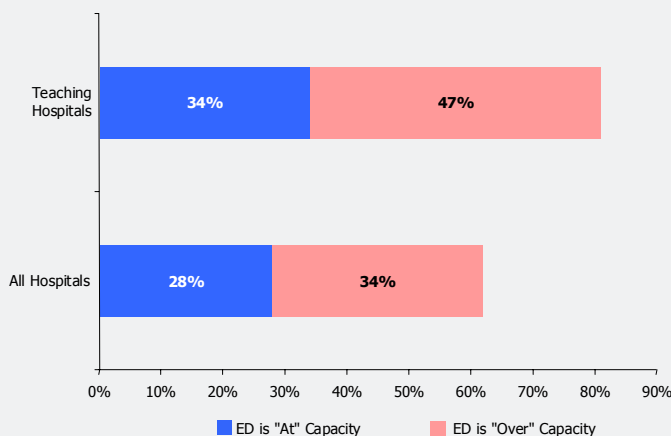
Emergency department volume is growing...

Chart 9: Number of ED Visits in Teaching Hospitals (in millions), 1994-2000



...and 81 percent of teaching hospitals report their ED is "at" or "over" capacity.

Chart 10: Percentage of Hospitals Reporting ED Capacity Levels, Teaching and All Hospitals, 2001



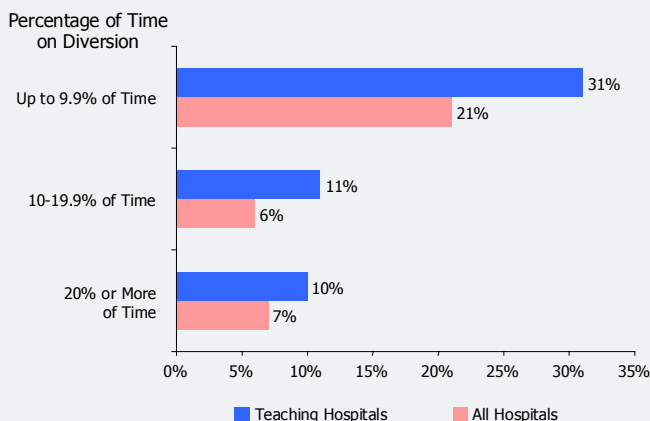
The emergency departments (EDs) of teaching hospitals represent a critical access point for both routine and specialized care for all patients regardless of their ability to pay. For many uninsured, EDs serve as the primary care provider and as an entry point for diagnostic services. While visits to EDs are on the rise, four out of five teaching hospitals perceive that they are operating "at" or "over" their capacity.¹ In November of 2001, more than half of these hospitals reported some time on diversion, i.e., times when their emergency departments could no longer accept all or specific types of patients by ambulance. A lack of staffed critical care inpatient beds appears to be causing much of the ED overload. For patients, capacity constraints translate into longer wait times to be seen by a doctor and delays in admission to general acute or critical care beds.

Quote from the Field

"We had too much capacity for most of my working life. And it's only been very recently, as we've shrunk down our system to make it more efficient, that the problem [ED diversion] is...happening in this country today." — Stuart Altman, Chair, Council on Health Care Economics and Policy

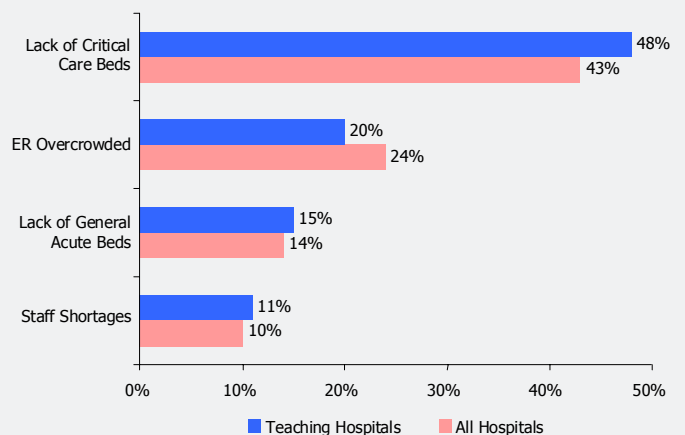
Teaching hospitals are more likely to experience some time on ambulance diversion...

Chart 11: Percentage of Time on Diversion, Teaching and All Hospitals, in November 2001



...primarily due to a shortage of staffed critical care beds.

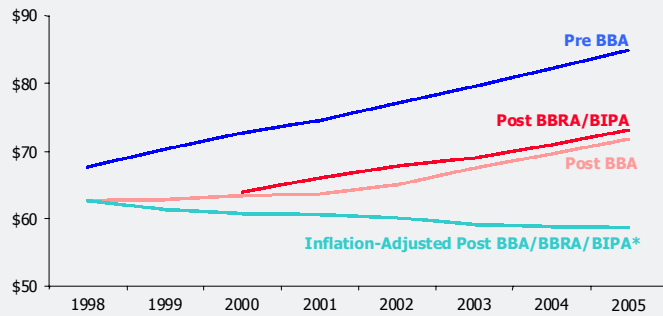
Chart 12: Percentage of Hospitals Citing Factor as Number One Reason for Ambulance Diversion, Teaching and All Hospitals, in November 2001



Payers – Public and Private – are Becoming Less Willing to Support the Teaching Hospital Mission...

Medicare payments to teaching hospitals are declining relative to inflation...

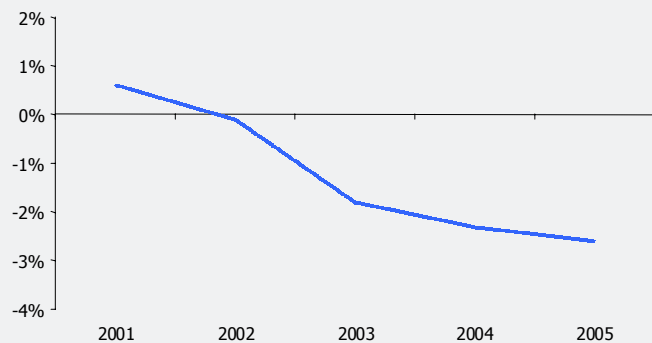
Chart 13: Projected Total Medicare Payments to Teaching Hospitals (in billions), 1998-2005



* Expressed in 1998 dollars; adjusted using inpatient MB for each year.
 Note: The BBA took effect in 1998; the BBRA in 2000; and BIPA in 2001.

...and by 2002, aggregate total Medicare margins are projected to become negative.

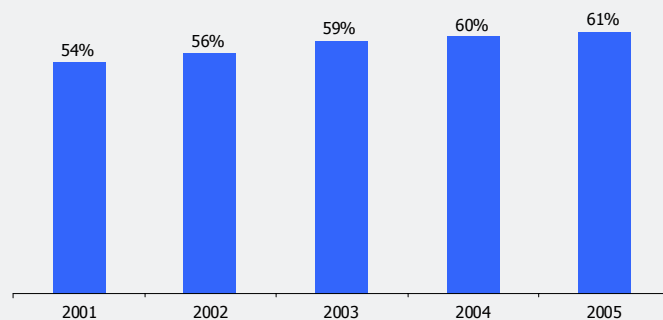
Chart 14: Projected Overall Medicare Margins for Teaching Hospitals, 2001-2005



Note: Overall Medicare margins were based on the full cost for all services to Medicare patients.

By 2005, 61 percent of teaching hospitals are projected to have negative Medicare margins.

Chart 15: Projected Percentage of Teaching Hospitals with Negative Medicare Margins, 2001-2005



Note: Overall Medicare margins were based on the full cost for all services to Medicare patients.

America's teaching hospitals rely on revenues from public and private payers to help fund mission-related activities. Medicare and Medicaid together account for about half of teaching hospitals' costs. Payment policies for these two programs have a significant impact on the overall financial health of teaching hospitals.

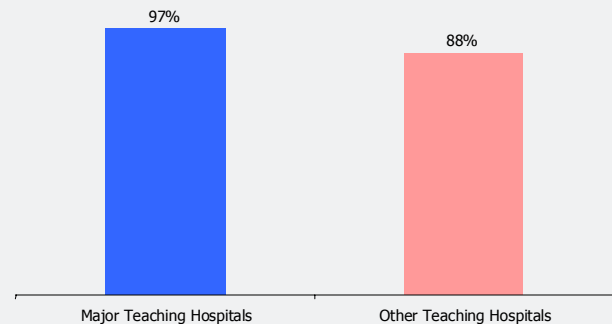
Through various payment mechanisms, the Medicare program has long recognized the value of the enhanced services beneficiaries receive in teaching hospitals as well as its responsibility for funding a share of costs for the training of medical professionals.

The Balanced Budget Act of 1997 (BBA) made landmark changes to the Medicare program, reducing total hospital spending by approximately \$76.7 billion over the first five years.¹ Teaching hospitals were hit particularly hard with significant reductions in Indirect Medical Education (IME) and Disproportionate Share (DSH) payments on top of the cuts felt by all hospitals across all services (i.e. inpatient, outpatient, home health, skilled nursing, and long-term care). Even after two subsequent rounds of relief, payments to teaching hospitals are projected to decline relative to inflation.

For major teaching hospitals, Medicaid represents nearly 20 percent of costs.² Medicaid is currently not paying the full costs of care, and with many states facing growing deficits, rising unemployment, and pressures to increase coverage levels, Medicaid payment levels could drop further.

In addition, Medicaid is not paying the full cost of care.

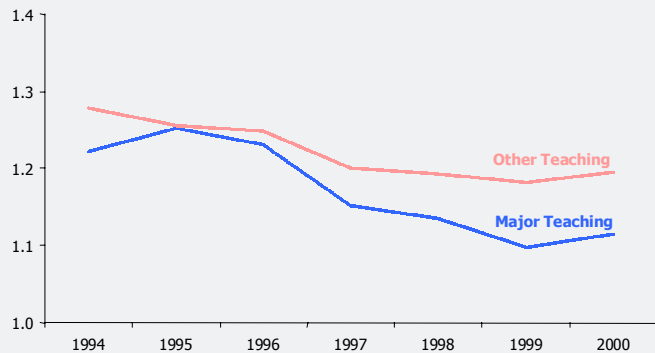
Chart 16: Medicaid Payment-to-Cost Ratio for Major and Other Teaching Hospitals, 2000



...Putting an Increasing Share of Teaching Hospitals at Financial Risk

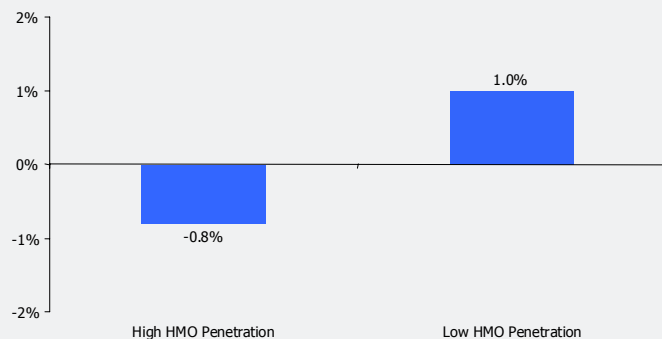
Private payers are reducing their support for the teaching hospital mission.

Chart 17: Private Payer Payment-to-Cost Ratio for Major and Other Teaching Hospitals, 1994-2000



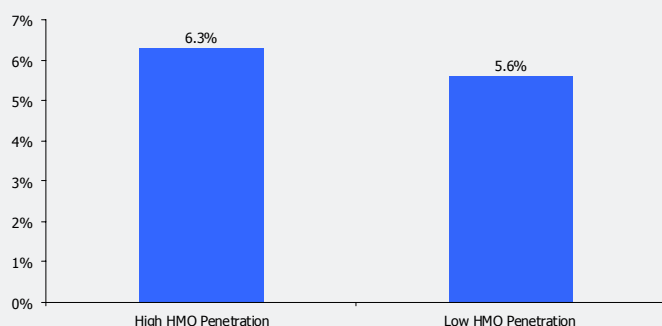
In price competitive HMO markets, teaching hospitals fare worse...

Chart 18: Operating Margins for Teaching Hospitals by High and Low HMO Penetration,¹ 2000



...and provide more uncompensated care.

Chart 19: Uncompensated Care Costs for Teaching Hospitals by High and Low HMO Penetration,¹ 2000



In price competitive markets, health maintenance organizations (HMOs) and other insurers are increasingly scrutinizing higher teaching hospital prices and perceived inefficiencies. In the late 1990s, major teaching hospitals, especially, faced reductions in payments from private payers, who cover over one-third of teaching hospital costs. As a result, teaching hospitals today are less able to look to the private sector to cross-subsidize Medicare and Medicaid payment shortfalls. Meanwhile, traditional cost-cutting strategies have proven insufficient and some teaching hospitals, such as Duke University Health System in North Carolina, Mount Sinai Medical Center in New York, and Beth Israel Deaconess Medical Center in Boston, recently announced sharp workforce reductions. Teaching hospitals appear particularly hard hit in areas with high levels of HMO penetration, where they also provide higher levels of uncompensated care.

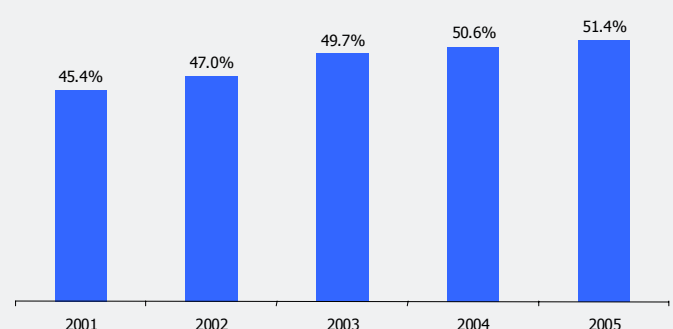
Private payer payment cuts also come at a time when hospitals face financial pressures resulting from rising prescription drug prices, workforce shortages, increasing liability insurance premiums, and a need to further enhance disaster preparedness. These pressures, combined with payment reductions from public payers and higher levels of uncompensated care, are clouding the financial future of teaching hospitals, with 51 percent predicted to show negative operating margins by 2005.

Quote from the Field

"In the era of hard-bargained managed care contracts, who will pay for this training? Who will pay for the care?...it's not clear how this country is going to continue to finance the clinical research and the basic science research that the academic centers do right now." — Sandra Hernandez, Former San Francisco Health Department Director

By 2005, 51 percent of teaching hospitals are projected to have negative overall operating margins.

Chart 20: Projected Percentage of Teaching Hospitals with Negative Overall Hospital Operating Margins, 2001-2005



Policy Issues and Questions

Teaching hospitals play a critical role in the health care system due to their missions of providing medical training programs, cutting edge clinical research, stand-by capacity, specialized care to the most critically ill patients, and access to poor and uninsured individuals. While the demand for teaching hospitals and their services is strong, public and private payers are less willing to pay for these services and teaching hospitals are feeling the effects financially.

The extent to which teaching hospitals can continue to sustain their missions is in question, raising a number of important policy questions:

- What are the implications of financial stress on teaching hospitals? What will be the impact on...
 - ...the health care workforce?
 - ...the pace of advancement in medicine?
 - ...access to care?
 - ...disaster readiness?
- What is the most appropriate way to ensure adequate funding of the public or social goods provided by teaching hospitals? What should be the role of Medicare? Medicaid? The private sector?
- How can society ensure the efficient and effective use of teaching hospitals?

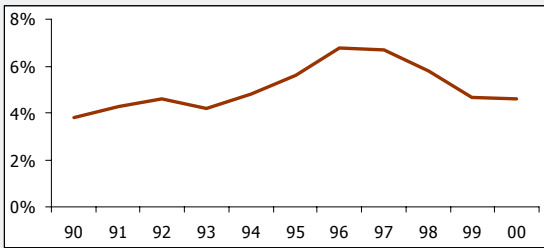
“For its part, society must communicate explicitly what social missions it wants academic medicine to pursue, and to what degree. Society must also be willing to pay reasonable costs to accomplish these missions, in a stable manner that facilitates the prudent strategic management of academic health centers. In return, the leaders of academic medicine must inform society what each component of their multi-prong social mission really costs, and they must be willing to be held more formally accountable for their use of the resources allocated to them.”

Adepeju L. Gbadebo, Graduate Student, Harvard School of Public Health, and
Uwe E. Reinhardt, James Madison Professor of Political Economy and Public Affairs,
Princeton University

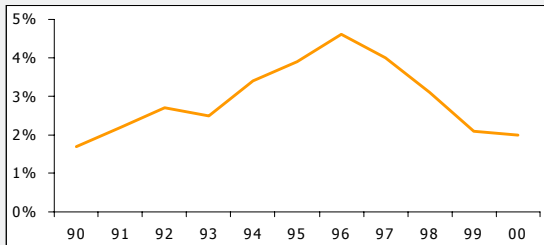
Stats to know

Hospital Sector

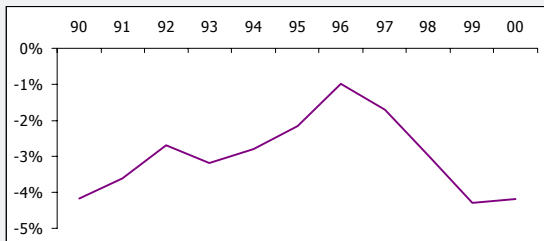
Total Margin:	1998	1999	2000
90 to 00 Trend	5.8%	4.7%	4.6%



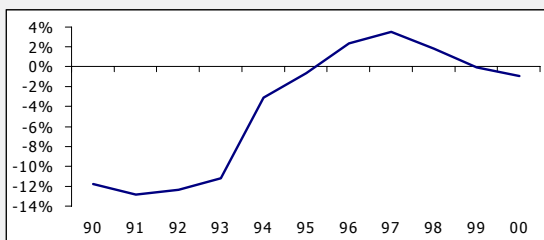
Operating Margins:	1998	1999	2000
90 to 00 Trend	3.1%	2.1%	2.0%



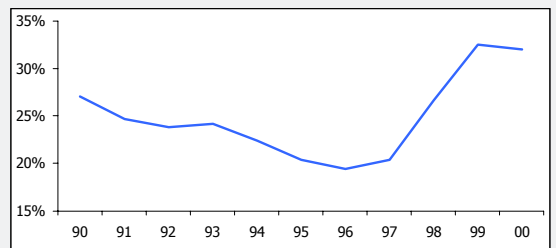
Patient Margins:	1998	1999	2000
90 to 00 Trend	-3.0%	-4.3%	-4.2%



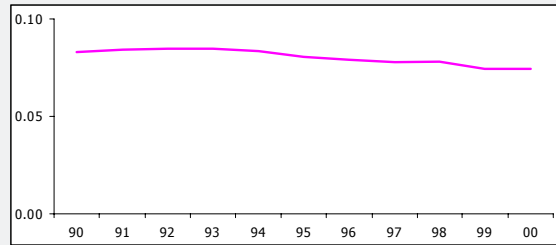
Medicare Margins:	1998	1999	2000
90 to 00 Trend	1.8%	-0.1%	-0.9%



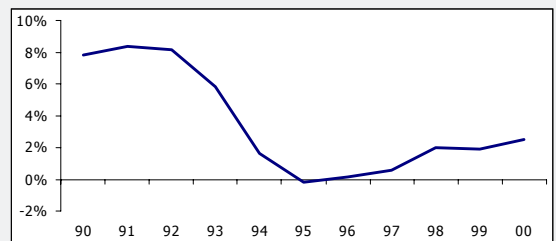
Percentage of Hospitals with Negative Total Margin: 90 to 00	1998	1999	2000
	26.6%	32.5%	32.0%



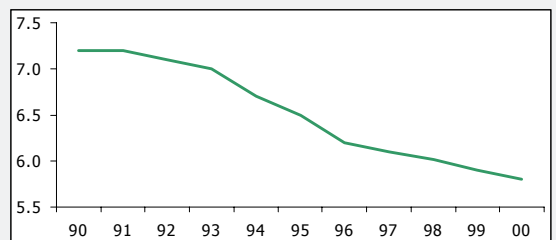
FTEs per Adjusted Admission:	1998	1999	2000
90 to 00 Trend	0.08	0.07	0.07



Percent Change in Expense per Adj. Admission: 90 to 00 Trend	1998	1999	2000
	2.0%	1.9%	2.5%



Average Length of Stay (in Days):	1998	1999	2000
90 to 00 Trend	6.0	5.9	5.8



Endnotes:

- Page 1: ¹Analysis excludes rehabilitation, psychiatric and long-term care hospitals.
- Page 2: ¹Uncompensated Care cost consists of the sum of bad debt and charity care charges converted to costs by a hospital specific ratio of costs to charges minus the tax allowances for bad debt and charity care.
²The Lewin Group Analysis of Medicare Cost Report 1998 and PPS Impact File FY 2001
³Urban non-teaching hospitals are defined as non-teaching hospitals with 100 beds or greater.
- Page 3: ¹Results from The Lewin Group Analysis of AHA ED and Hospital Capacity Survey, 2002
- Page 4: ¹The Impact of the Medicare Balanced Budget Refinement Act on Medicare Payments to Hospitals. Report to the AHA by The Lewin Group, February 2000
²The Lewin Group Analysis of AHA Annual Survey 2000 (reported data only), PPS Impact File FY 2002
- Page 5: ¹Low HMO penetration hospitals include hospitals that fell in the lower quartile of HMO penetration in 2000. High HMO penetration hospitals include hospitals that fell in the upper quartile of HMO penetration in 2000.

Sources:

- Chart 1: The Lewin Group Analysis of AHA Annual Survey 2000 and PPS Impact File FY 2002
- Chart 2: The Lewin Group Analysis of AHA Annual Survey 2000 and PPS Impact File FY 2002
- Chart 3: MedPAC, Report to the Congress: Medicare Payment Policy, March 2002
- Chart 4: The Lewin Group Analysis of AHA Annual Survey, 1980-2000, for community hospitals
- Chart 5: The Lewin Group Analysis of AHA Annual Survey 1994-2000 (reported data only for major teaching category), PPS Impact File FY 1997-2002, and Medicare Cost Report 1994
- Chart 6: The Lewin Group Analysis of AHA Annual Survey 2000 and PPS Impact File FY 2002
- Chart 7: The Lewin Group Analysis of PPS Impact File FY 2002
- Chart 8: The Lewin Group Analysis of the cost of teaching hospitals' multiple missions, funded by The Commonwealth Fund
- Chart 9: The Lewin Group Analysis of AHA Annual Survey 1994-2000, PPS Impact File FY 1997-2002, and Medicare Cost Report 1994
- Charts 10-12: The Lewin Group Analysis of AHA ED and Hospital Capacity Survey, 2002
- Chart 13: The Lewin Group Analysis of the Impact of BBA, BBRA and BIPA: 1998-2005 on Medicare Hospital Payments and Margins
Notes: 1) Actual AHA survey data were used for 1998 and 1999 as a base. Years 2000-2005 were projected using The Lewin Group simulations of the revenue effects of the BBA, BBRA, and BIPA; 2) Teaching hospitals were defined using 1998 AHA intern- and resident-to-bed ratios.
- Charts 14-15: The Lewin Group Analysis of the Impact of BBA, BBRA and BIPA: 1998-2005 on Medicare Hospital Payments and Margins
Notes: 1) Years 2001-2005 were projected using The Lewin Group simulations of the revenue effects of the BBA, BBRA, and BIPA. Costs were increased at market basket; 2) Teaching hospitals were defined using 1998 AHA intern- and resident-to-bed ratios.
- Chart 16: The Lewin Group Analysis of AHA Annual Survey 2000 (reported data only) and PPS Impact File FY 2002
- Chart 17: The Lewin Group Analysis of AHA Annual Survey 1994-2000, PPS Impact File FY 1997-2002, and Medicare Cost Report 1994
- Charts 18-19: The Lewin Group Analysis of AHA Annual Survey 2000 (reported data only) and PPS Impact File FY 1997-2002. HMO penetration rates were assigned by MSA number from the InterStudy Competitive Edge 10.2 Part III: Regional Market Analysis report
- Chart 20: The Lewin Group Analysis of the Impact of the Medicare Benefits Improvement and Protection Act of 2000 (BIPA) for the Association of American Medical Colleges (AAMC), June 2000
Notes: 1) Costs were increased by 3 percent annually; 2) Teaching hospitals were defined using the PPS Impact File FY 2001 intern- and resident-to-bed ratios.

Source for "Stats to Know":

The Lewin Group Analysis of American Hospital Association Annual Survey, 1990-2000

TrendWatch is a series of reports produced by the American Hospital Association and The Lewin Group highlighting important and emerging trends in the hospital and health care field.



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