

Provision of high-quality patient care depends upon a strong partnership between physicians¹ and hospitals. Hospitals offer both an important venue in which physicians care for their patients and a training ground for the next generation of physicians. Conversely, hospitals depend on physician orders for many of the services they provide. Relationships between hospitals and physicians range from collaborative to competitive to contentious. Hospitals have tried a number of partnership models — purchasing practices, joint ventures, physician hospital organizations, and others — with mixed success. Creating successful partnerships in the future will require hospital leaders to better understand physicians and the nature of their concerns.

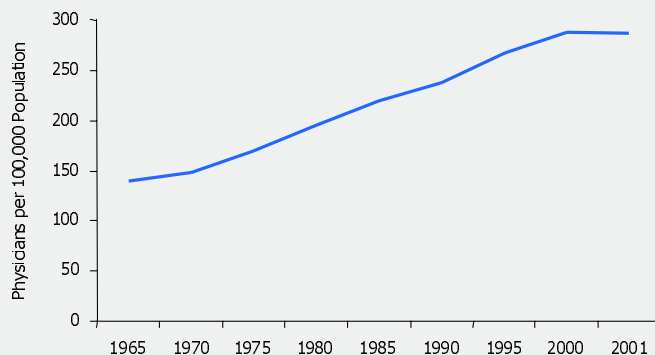
There are currently more than 800,000 physicians practicing in the United States, 286 per 100,000 population. In the past decade, the physician population and

the environment in which they practice have changed dramatically. Physicians are older and there is an increasing number of female physicians. The population they serve is more racially and culturally diverse. Physicians have become more concerned about the amount of time spent on administrative tasks relative to patient care. Finally, the payment policies of Medicare, Medicaid, and private payers as well as the lack of affordable professional liability insurance are affecting some physicians' ability to practice medicine in some geographic areas.

To help hospital leaders respond to changes in the physician marketplace, this issue of *TrendWatch* describes demographic shifts within the physician population, economic pressures physicians face, changes in the way physicians practice, and questions about future supply and demand.

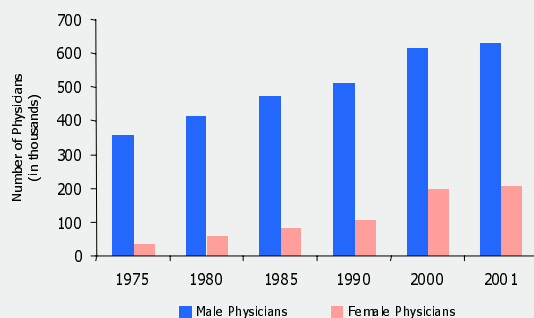
The number of physicians per 100,000 population has more than doubled since 1965...

Chart 1: Number of Nonfederal Physicians per 100,000 Population, 1965 – 2001



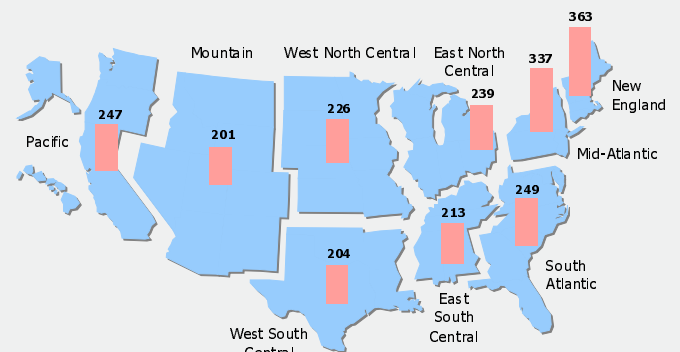
The number of female physicians is rising, but they are underrepresented...

Chart 3: Number of Physicians by Gender, 1975 – 2001



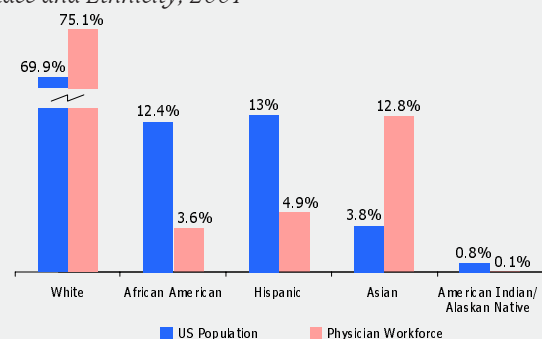
...with higher physician-to-population ratios in the northeast relative to the nation.

Chart 2: Number of Active Nonfederal Physicians per 100,000 Population by Region, 2001



...and the racial composition of physicians does not mirror the U.S. population.

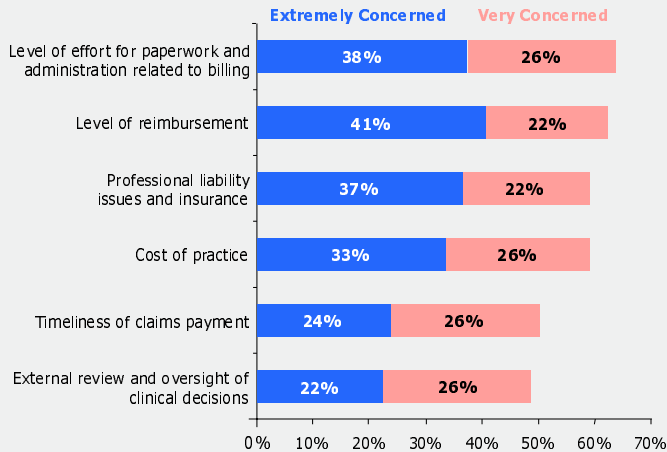
Chart 4: Breakdown of Physician Workforce and U.S. Population by Race and Ethnicity, 2001



Physicians face economic challenges...

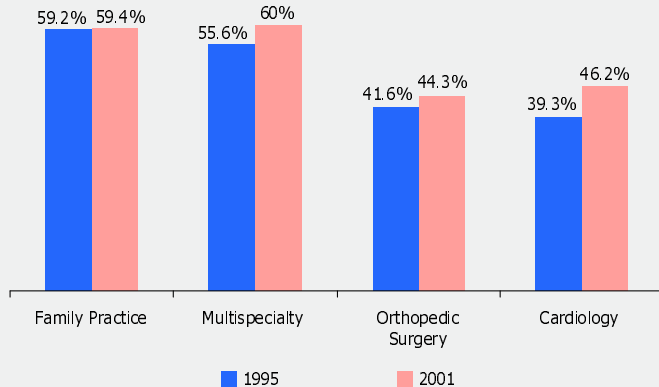
Paperwork, payment, and professional liability are top physician concerns...

Chart 5: Percent of Physicians Indicating Overall Levels of Concern About Various Aspects of Practice, 2002



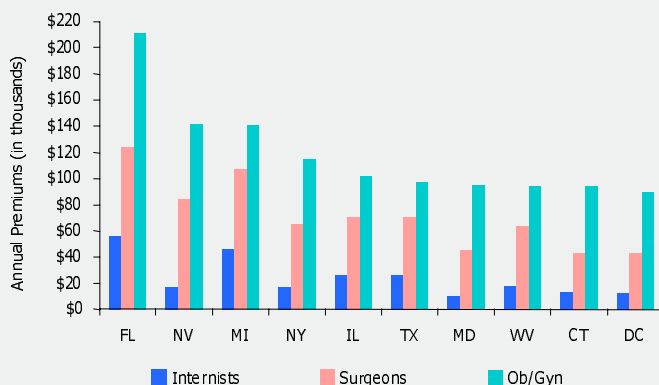
...as operating costs consume a higher portion of total medical revenues...

Chart 6: Median Total Operating Cost as a Percentage of Total Medical Revenue, 1995 vs. 2001



...and professional liability premiums hit the six figure range for some physicians.

Chart 7: Highest Professional Liability Premiums Reported for Internal Medicine, Ob/Gyn, and Surgery, Selected States, 2002



Although the practice of medicine remains a personally rewarding profession, with physicians still ranking among the highest paid professionals in the U.S., physicians are now facing a host of financial pressures that can affect both the way they practice and patients' future access to care.

Medicare, the second largest source of physician revenue, cut payments for physician services by 5.4 percent in 2002. Congress rejected additional cuts in 2003, but unless Congress acts again, more cuts are expected for 2004 and 2005.

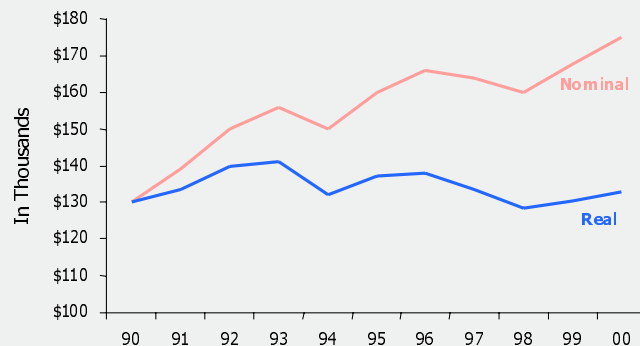
Physician practice costs, including office expenses, professional liability premiums, and costs of medical equipment, are rising in relation to total practice revenues. From 1995 to 2001, median total operating costs for physicians in multispecialty practices rose from 56 percent to 60 percent of total medical revenues. A 2002 MedPAC survey found that physicians are moving to reduce expenses and increase revenue — 68 percent of the physicians reported delaying capital investment and 75 percent reported increasing their patient load.

Recently, the rising cost of professional liability insurance has emerged as a crisis for certain physician specialties in an increasing number of states. Lack of affordable professional liability insurance is jeopardizing the ability of some physicians to practice medicine and care for patients. In January, dozens of surgeons at four West Virginia hospitals took leaves of absence to protest the legislature's lack of action in curbing professional liability costs. The legislature subsequently took action.

As is also the case with hospitals, regulatory burdens are a growing cause of concern for physicians. For example, efforts to comply with the administrative simplification and privacy provisions of the Health Insurance Portability and Accountability Act of 1996 are contributing to rising expenses.

Meanwhile, real physician net income remained flat through the 1990s.

Chart 8: Nominal and Real Median Net Income (in Thousands of Dollars) for Physicians, 1990 – 2000



Note: Real income in 1990 dollars; 1999 data imputed based on growth rate between 1998 and 2000

...and these, among other challenges, influence the way they practice.

Many physicians choose to be employed rather than independent. Some graduating physicians take salaried positions with hospitals, universities, HMOs, or other health care organizations while others sell their practices and become employed later in life. Employed physicians as a percentage of total physicians jumped from 32 percent in 1992 to 43 percent in 1994 and has remained fairly stable since then. In 1999, 20 percent of employed physicians worked in hospitals, up from 17 percent in 1998. Factors influencing this choice include age, gender, years of experience, and uncertain future economic conditions.

Although overall time spent on patient care activities has remained relatively constant, physicians are changing the way they spend their professional time. Physicians are spending less time on hospital rounds and more time treating patients in outpatient settings. The use of hospitalists — physicians whose primary focus is the care of hospitalized patients — is becoming more common.

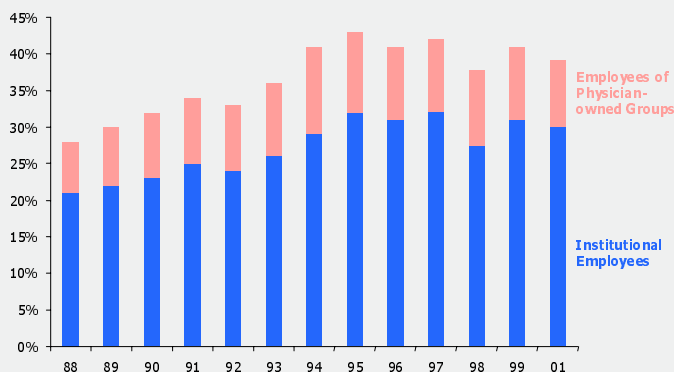
To offset the reduction in payments from commercial insurers, some self-employed physicians are taking on greater patient loads. Increased administrative paperwork cuts into professional time and is a major burden for most physicians. Current estimates suggest that physicians spend 8 to 18 dollars to process paperwork and file a single insurance claim. Physicians usually need to re-file 20 to 30 percent of claims — adding even greater costs.¹ These increased pressures may discourage physicians from engaging in additional uncompensated activities, such as serving on hospital committees.

The combination of rising costs and lower payments makes it more difficult for physicians to cross-subsidize care they provide to Medicaid patients and the uninsured, jeopardizing access to care. According to a 2001 study, 16 percent of physicians were not accepting any new uninsured patients and 20 percent were not accepting new Medicaid patients. In contrast, only 3.8 percent were not accepting new Medicare patients, and 4.9 percent were not accepting new privately insured patients.²

For physicians, financial pressures and increased administrative burden, among other factors, contribute to a general feeling of dissatisfaction with their profession. A recent Kaiser Family Foundation National Survey found that 60 percent of physicians said their enthusiasm for practicing medicine declined during the last five years, and 87 percent said that the overall morale of physicians has decreased over the same period.

Approximately 40 percent of physicians choose employment...

Chart 9: Percentage of Physicians* Who Were Employees, 1988 – 2001**

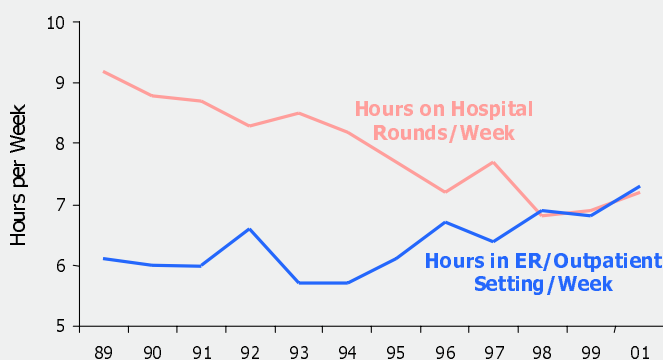


*Excludes physicians in Graduate Medical Education and physicians employed by the federal government.

**2000 data unavailable.

...and time spent in inpatient settings is decreasing.

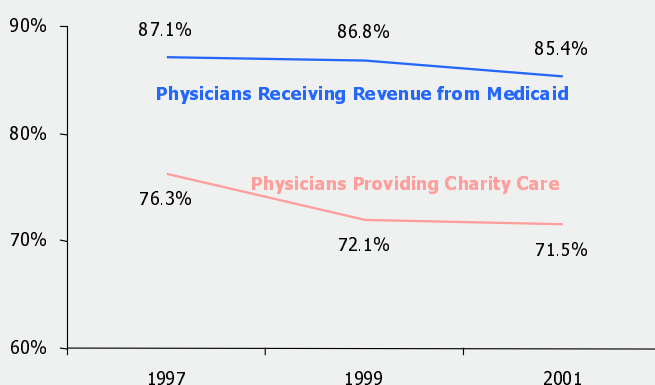
Chart 10: Physician Mean Hours on Hospital Rounds per Week vs. Mean Hours in Emergency Room (ER)/Outpatient Settings per Week, 1989 – 2001*



*2000 data unavailable.

Some physicians are making the difficult choice to cut back on Medicaid and charity care.

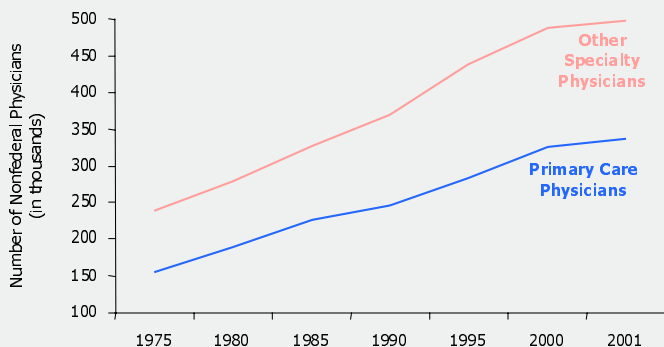
Chart 11: Physicians with Medicaid and Charity Care Practice, 1997, 1999, and 2001



Some fear a looming shortage of physicians...

The number of primary care and other specialty physicians is growing...

Chart 12: Number of Nonfederal Physicians: Primary Care* and Other Specialties, 1975 – 2001



*Primary Care includes: Family Practice, General Practice, General Internal Medicine, Ob/Gyn, and Pediatrics, excluding their associated subspecialties

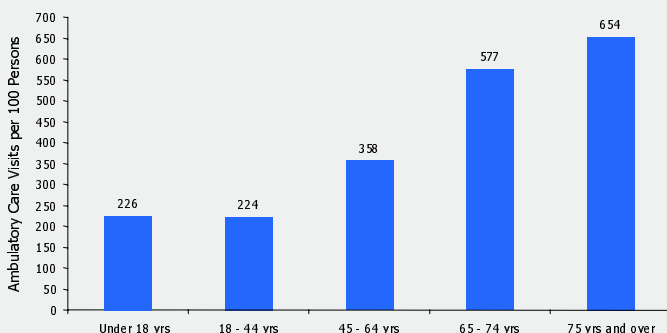
...but there are geographic pockets of physician shortage now.

Chart 13: Map of Designated Health Professional Shortage Areas (HPSAs) in Southern Los Angeles County, CA, 2003



As the population ages, demand for physician services will increase...

Chart 14: Ambulatory Care Visits to Physician Offices per 100 Persons by Age Group, 2000



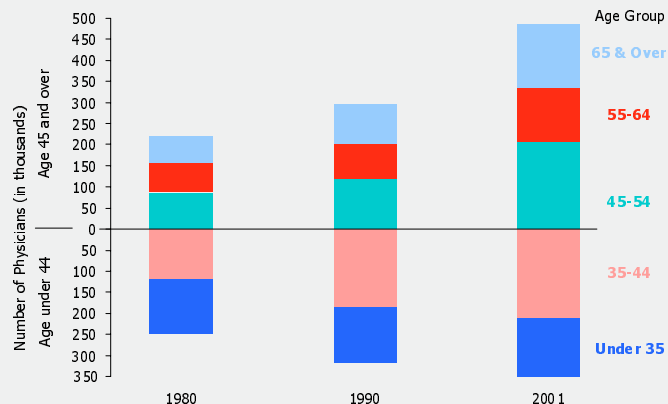
Recently, focus has returned to the debate over the adequacy of the number, geographic distribution, and specialty mix of physicians. Government statistics indicate that in certain rural areas and pockets of urban areas, there are shortages of physicians. Research has shown that minority physicians are more likely to practice in urban, underserved communities and foreign-born International Medical Graduates (IMGs) are more likely than their U.S. counterparts to practice in medically underserved rural areas. Patients in these health professional shortage areas (HPSAs) experience longer wait times compared to patients in other areas or have certain services completely unavailable to them. These shortages may increase, as the tightening of immigration policies, amid growing terrorism concerns, has affected the number of foreign-born IMGs. IMGs represent 24 percent of the physician workforce.

The changing demographics of the U.S. population raises concern about the overall supply of physicians and potential shortages in certain specialties. The population is aging and will require more health care services just as large numbers of physicians begin to retire. Americans aged 65 and over represent 12 percent of the U.S. population and account for 23 percent of ambulatory care visits and 43 percent of hospital days.¹ In addition, the U.S. population is becoming more culturally and ethnically diverse and hospitals are working to create more culturally sensitive care delivery environments. However, the low numbers of minority and bilingual physicians make this goal harder to reach.

"No one can claim to know what would be a proper overall physician-to-population ratio for the U.S. or any of its regions." — Uwe E. Reinhardt, James Madison Professor of Political Economy and Public Affairs, Princeton University

...just as many physicians approach retirement age.

Chart 15: Number of Physicians by Age, 1980, 1990, and 2001



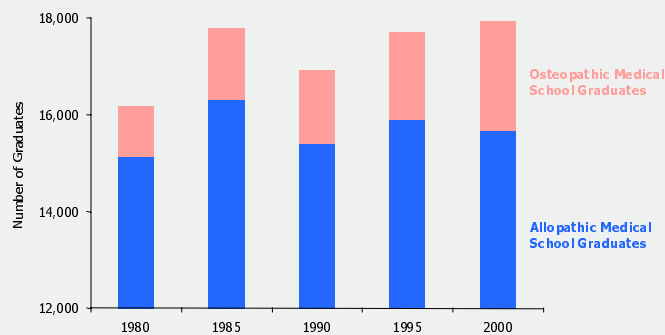
...while others disagree.

Despite these facts, there is great uncertainty about the adequacy of future physician supply. The outputs of models of future physician supply and demand are inconclusive. Findings are heavily dependent upon a model's underlying assumptions about the determinants of supply and demand. Supply factors include entrance to and exit from the profession, the availability of training programs and training slots, and physician productivity. Demand factors include new technologies, health care reimbursement arrangements, utilization, economic conditions, and although debatable, physician-induced demand.

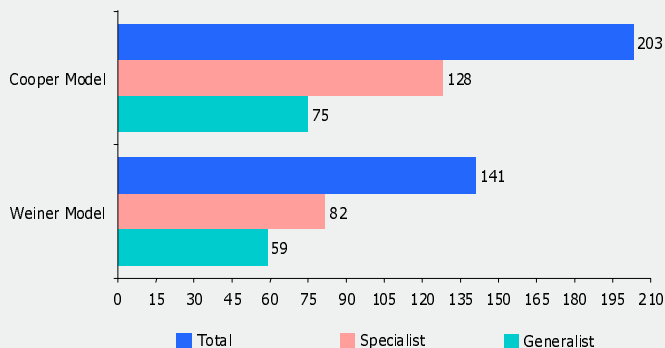
There are three general types of models used to forecast the future demand for physicians. Demand-based models use current utilization patterns to project future physician requirements. Needs-based models rely on panels of experts to estimate the per capita number of physicians needed based on clinical criteria. Benchmarking models develop projections based upon the actual experience in a particular health care pro-

The flow of students out of medical schools is steady...

Chart 16: Trends in U.S. Medical School Graduations, 1980–2000



...but estimates of year 2000 physician requirements vary...



vider model, region, or nation. Some models project shortages while others project surpluses.

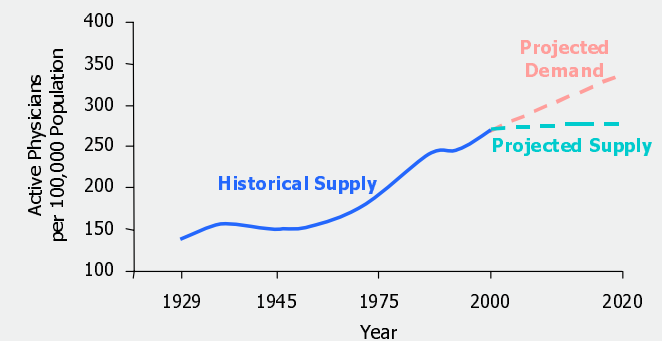
At the heart of discussions about physician workforce policy is a debate about government intervention. While some¹ argue that government interventions distort the health care market, others² argue that it is failures in the health care market that necessitate government intervention. The federal government does influence the size and composition of the physician workforce through its funding of medical education and programs, such as the National Health Service Corps, which encourage physicians to practice in underserved areas. The government indirectly influences the physician workforce through Medicare and Medicaid reimbursement policies and regulation. Physician organizations influence workforce size and composition through the availability of training slots.

Uncertainty about trends in managed care, Medicare and Medicaid payment levels, and technological advances make it difficult to project future physician demand. The growth and aging of the population, however, may portend an increase in physician demand—both in absolute and per capita terms.

Some analysts believe that aggregate supply of physicians is less important than the geographic distribution of physicians. Future physician surpluses and shortages will be determined by the degree to which physicians distribute themselves geographically and patients turn to non-physician providers for some services. But the many uncertainties about demand determinants, coupled with the dearth of information about the effect of variations in levels of physician care on health outcomes, will ensure that these debates continue.

...and recent projections of a shortage are hotly debated.

Chart 18: Physician Supply, 1929–2000 and Projected Physician Supply and Demand to 2020*



*Note: "Physician Demand" is projected based on an average annual Gross Domestic Product growth rate of 2%.

Issues and Questions

Physicians report being increasingly dissatisfied with their profession. They are facing rising practice costs, lower payments, and increasing regulatory burden. Some physicians are changing the way they practice and some older physicians are choosing to retire early. These changes, coupled with the growing concern over future physician shortages, may hinder access to health care. The provision of high-quality patient care depends upon strong working relationships between physicians and hospitals. Hospital administrators can more effectively build those relationships by better understanding the pressures physicians face and the concerns physicians have about their practices.

Questions for hospitals and policy-makers include:

- Given changes in the situation of physicians, how will the relationships between hospitals and physicians evolve?
- How will hospitals cope with specialties in certain geographic areas that are severely compromised by the lack of affordable professional liability insurance?
- To what extent will hospitals be called upon to support physician income through direct employment or other mechanisms?
- What actions will hospitals take to ensure access to physician services given increasing concern over future shortages in some geographic areas?
- If more physicians stop accepting new Medicaid and uninsured patients, how will hospitals need to adapt?
- As the population grows and ages, to what extent will teaching hospitals adjust the availability of training programs and the number of training slots? What data and policy goals will guide this decision?
- Is there now or will there be a shortage of physicians? If so, what types? How widespread?

Quotes from the Field

“Grappling with severe cuts in Medicare payments and skyrocketing liability insurance costs, physicians are feeling squeezed like never before.” — Yank D. Coble, Jr., M.D., President, American Medical Association

“Physician career satisfaction is one indicator of the overall health of our health care delivery system...For example, excellent, but dissatisfied physicians could decide to leave the practice of medicine early, and highly talented students might opt for different career paths if the perception exists that medicine is not a fulfilling career. Both of these outcomes would clearly weaken patient care and the health care system in general.” — Bruce Landon, M.D., Assistant Professor of Health Care Policy and Medicine, Harvard Medical School Department of Health Care Policy and Beth Israel Deaconess Medical Center

“If the [professional liability situation] does not change, once I retire, women in my area will not have access to a West Virginia Ob/Gyn in private practice.” — James Brown, MD, of Martinsburg, WV

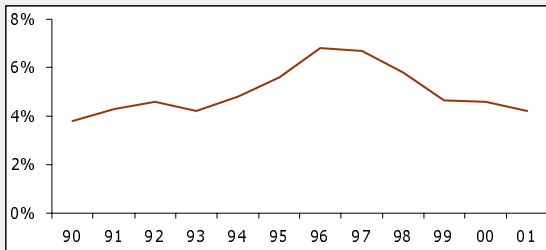
“The decline in physicians providing charity care and treating Medicaid patients is a sign of the financial pressures facing physicians.” — Paul B. Ginsburg, PhD, President, Center for Studying Health System Change

“The professional liability crisis is national in scope, but it is now reaching our state. In states such as NV, MS, FL, and PA, the crisis is so severe that trauma centers have closed, physicians have left their states for other regions, or simply stopped their practices altogether. Residents in those states used to say it couldn't happen there, but it did.” — Charles A. Welch, M.D., President, Massachusetts Medical Society

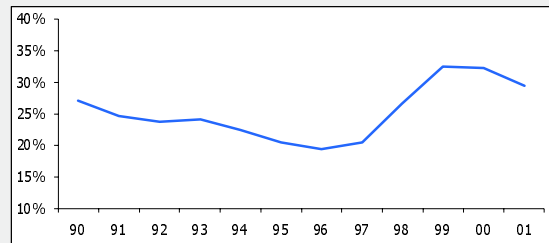
Stats to know

Hospital Sector

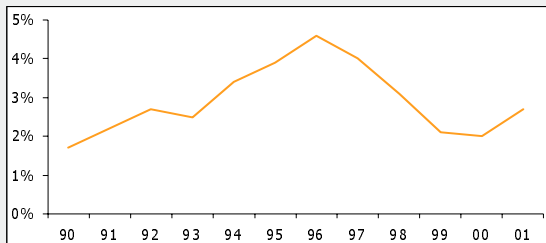
Total Margin:	1999	2000	2001
90 to 01 Trend	4.7%	4.6%	4.2%



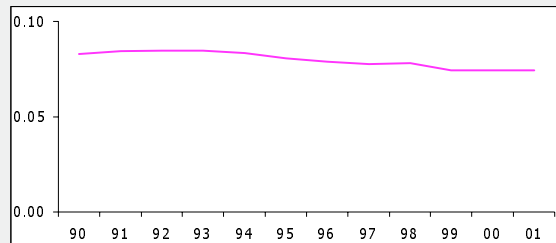
Percentage of Hospitals with Negative Total Margin: 90 to 01	1999	2000	2001
	32.5%	32.2%	29.4%



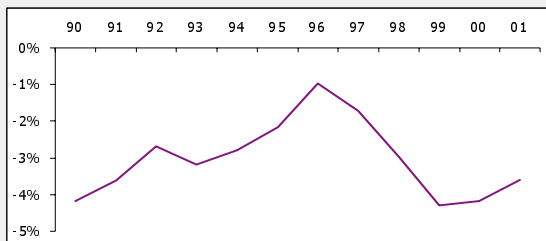
Operating Margins:	1999	2000	2001
90 to 01 Trend	2.1%	2.0%	2.7%



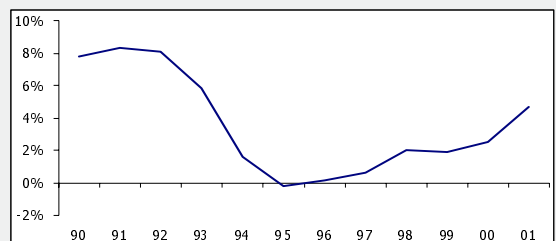
FTEs per Adjusted Admission:	1999	2000	2001
90 to 01 Trend	0.07	0.07	0.07



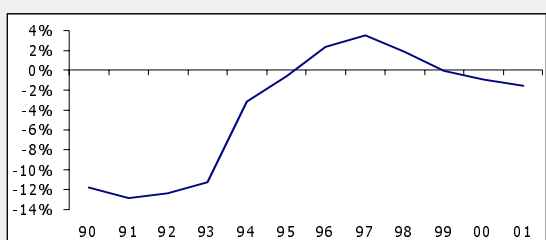
Patient Margins:	1999	2000	2001
90 to 01 Trend	-4.3%	-4.2%	-3.6%



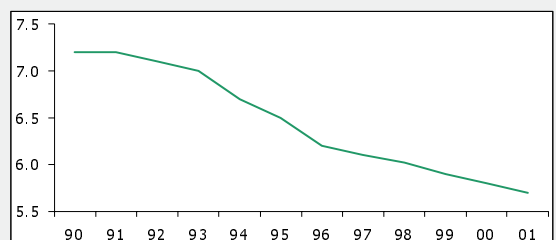
Percent Change in Expense per Adj. Admission: 90 to 01 Trend	1999	2000	2001
	1.9%	2.5%	4.7%



Medicare Margins:	1999	2000	2001
90 to 01 Trend	-0.1%	-0.9%	-1.6%



Average Length of Stay (in Days):	1999	2000	2001
90 to 01 Trend	5.9	5.8	5.7



Endnotes:

- Page 1: ¹ Physicians include medical doctors and doctors of osteopathy.
- Page 3: ¹ Mark Litow, Consulting Actuary, Milliman & Robertson, in *National Underwriter*
² Center for Studying Health System Change, Community Tracking Study Physician Survey, Tracking Report No. 6, December 2002, *Mounting Pressures: Physicians Serving Medicaid Patients and the Uninsured, 1997 - 2001*
- Page 4: ¹ Tassone Kovner, Mezey, Harrington; *Health Affairs*, vol. 21, no. 5, p. 78 - 89
- Page 5: ¹ For example, Uwe Reinhardt in response to a recent article by Kevin Grumbach, questions manpower forecasting and policy making due to uncertainties surrounding the future progress of medicine which could result in forecasting errors and imbalances between supply and demand.
² For example, Kevin Grumbach authored a recent article articulating the need for a firm regulatory grasp on physician workforce policy.
³ Cooper's model was published in 1984 and Weiner's model was published in 1994.

Sources:

- Chart 1: American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*; this chart and all subsequent charts refer to both allopathic and osteopathic physicians.
- Chart 2: American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*
- Chart 3: American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*
- Chart 4: U.S. Bureau of the Census (persons of one or more races not included) and American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*
- Chart 5: MedPAC 2002 Survey of Physicians About the Medicare Program, March 2003
- Chart 6: Medical Group Management Association, Cost Survey: 2002 Based on 2001 Data
- Chart 7: Medical Liability Monitor 2002 Report, September 24, 2002 (preliminary data)
- Chart 8: 1991-1999 AMA Socioeconomic Monitoring System surveys, 2001 Patient Care Physician Survey
- Chart 9: American Medical Association, *Socioeconomic Characteristics of Medical Practice 1997/98*, *Physician Socioeconomic Statistics, 1999-2000*, and *Physician Socioeconomic Statistics, 2000-2002 and 2003*
- Chart 10: American Medical Association, *Socioeconomic Characteristics of Medical Practice 1997/98*, *Physician Socioeconomic Statistics, 1999-2000*, and *Physician Socioeconomic Statistics, 2000-2002 and 2003*
- Chart 11: Center for Studying Health System Change, Community Tracking Study Physician Survey, Tracking Report No. 6, December 2002, *Mounting Pressures: Physicians Serving Medicaid Patients and the Uninsured, 1997 - 2001*
- Chart 12: American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*
- Chart 13: The Lewin Group analysis of census tract data from HPSA Database, Bureau of Primary Health Care, HRSA, in ArcView GIS 3.2
- Chart 14: Centers for Disease Control and Prevention, National Center for Health Statistics, Health United States, 2002
- Chart 15: American Medical Association, *Physician Characteristics and Distribution in the US, 2003-2004 Edition*
- chart 16: Salsberg, Forte; *Health Affairs*, vol. 21, no. 5, p. 167
- Chart 17: Blue Cross and Blue Shield Association and Blue Cross and Blue Shield of the Rochester Area, "Matching Physician Supply and Requirements: Testing Policy Recommendations", Inquiry, Summer 1996, Volume 33, p 183
- Chart 18: Based on Exhibit 1 from Cooper, Getzen, McKee, Laud; *Health Affairs*, vol. 21, no. 1, p. 143

Source for "Stats to Know":

The Lewin Group analysis of American Hospital Association Annual Survey, 1990-2001

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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