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**Trends Affecting Hospitals
and Health Systems**

*TrendWatch
Chartbook*

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in America*



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TrendWatch Chartbook 2001

Trends Affecting
Hospitals and Health Systems

July 2001

Prepared by
The Lewin Group, Inc.
for
The American Hospital Association

TrendWatch is a partnership between The American Hospital Association and The Lewin Group designed to provide research and analysis of important and emerging trends in the hospital and health care field. The TrendWatch team members track hospital and health care issues, prepare quarterly reports on emerging and important trends, and offer technical support to AHA and member organizations.

The American Hospital Association (AHA) is the national organization that represents and serves all types of hospitals, health care networks, and their patients and communities. Close to 5,000 institutional, 600 associate, and 40,000 personal members come together to form the AHA.



The Lewin Group is a strategic health and human services consulting firm with 30 years' experience in the US and around the world. The Lewin Group's mission is to help improve health policy and increase knowledge about health and human services systems worldwide.



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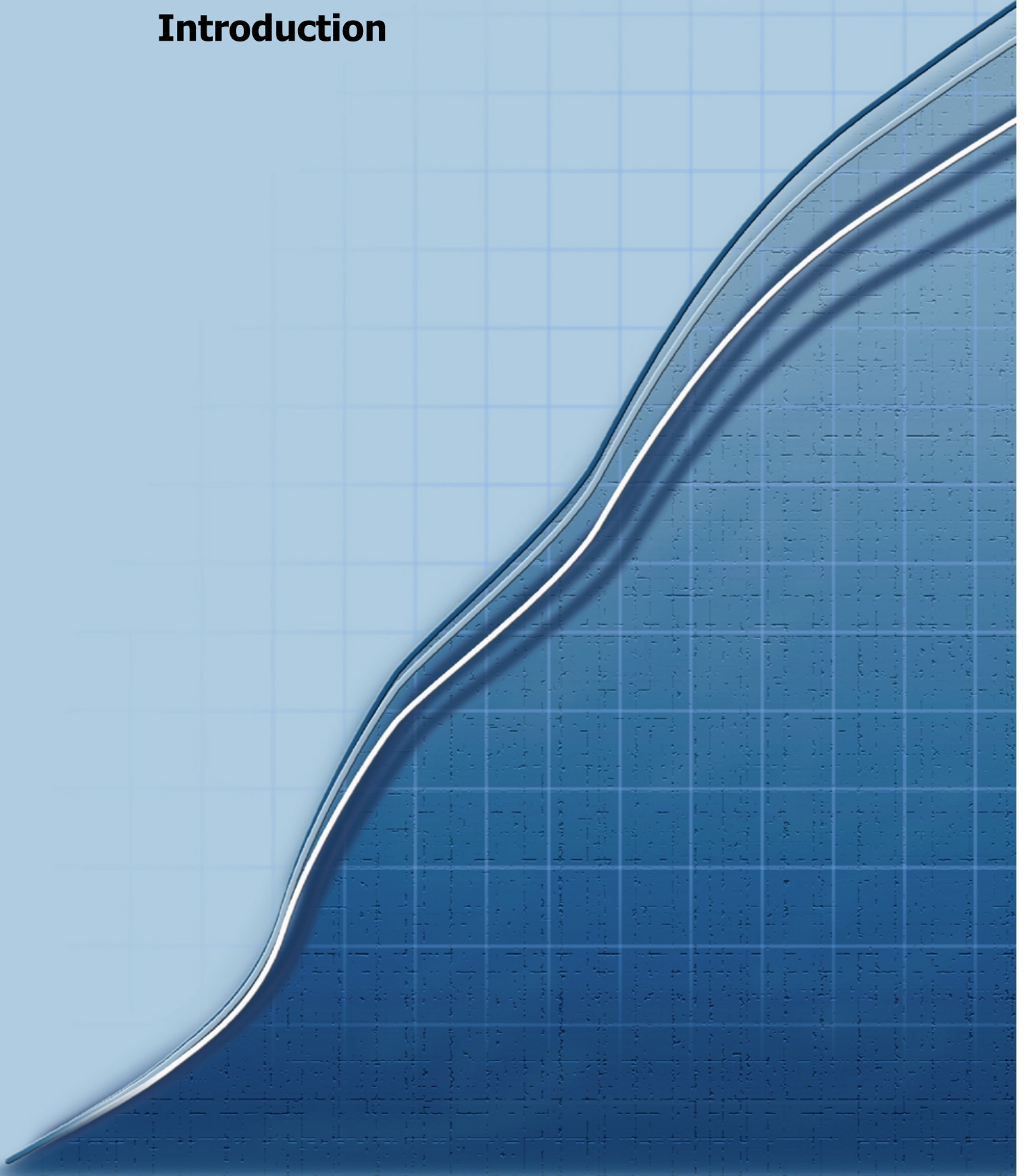
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Introduction



Introduction

Hospitals continue to face a challenging environment with pressures from both the public and the private sectors. Hospitals secured some relief from the Balanced Budget Act, but still expect to experience Medicare losses going forward. Pressure is mounting for a Medicare prescription drug benefit, but where funding for such a benefit would come from is unclear as health care initiatives compete with other priorities of the new Bush Administration. On the private side, employer health insurance premiums jumped by 8 percent, raising fears that the moderation in premium growth experienced in the mid-nineties was just an anomaly. The economy has slowed, but the tight labor market for nurses, pharmacists, and other hospital workers continues to put upward pressure on hospital labor costs.

Backlash against managed care seems to have lessened as new issues, such as rising prescription drug costs, medical errors, and privacy regulations, captured national attention. Pressure remains to pass a patient bill of rights though the issue of a patient's right to sue continues to impede agreement. Meanwhile, managed care plans are rethinking how they control utilization and several have pulled back from direct controls on physician behavior. The relaxation in utilization controls could be contributing to the recent jump in premium levels. If premiums continue to rise at rates approaching double digits, consumers and employers may need to revisit how much they are willing to pay for broader choice of provider and access.

According to Current Population Survey estimates, the rate of uninsurance declined slightly between 1998 and 1999, but not nearly as much as many had hoped given the robust economy and new programs such as the State Children's Health Insurance Program (SCHIP). A Robert Wood Johnson Foundation initiative, of which AHA is a partner, has brought together an unlikely alliance among insurers, providers, consumer groups, and the business community that is pushing lawmakers to expand coverage.

In 1999, hospital days went up, reversing what had been more than a 20 year decline. Possible factors include a severe flu season, a relaxation of utilization controls and the aging population. After years of concern about overcapacity, large urban areas are now worrying about the ability of the health care system to handle upward fluctuations in demand. Stories about ambulance diversions have become headline news at the national level.



Aggregate total hospital margins fell to 4.6 percent in 1999—more than a point lower than the prior year—and the proportion of hospitals with negative total margins increased to 32.5 percent. Between 1998 and 1999, expense per adjusted admission grew at 1.9 percent, slightly less than in the prior year. Operating revenue per adjusted admission, however, grew at less than half that rate pushing down patient care margins. During the year, Medicare payments fell below Medicare costs. Despite two rounds of BBA relief, Medicare margins are projected to continue falling.

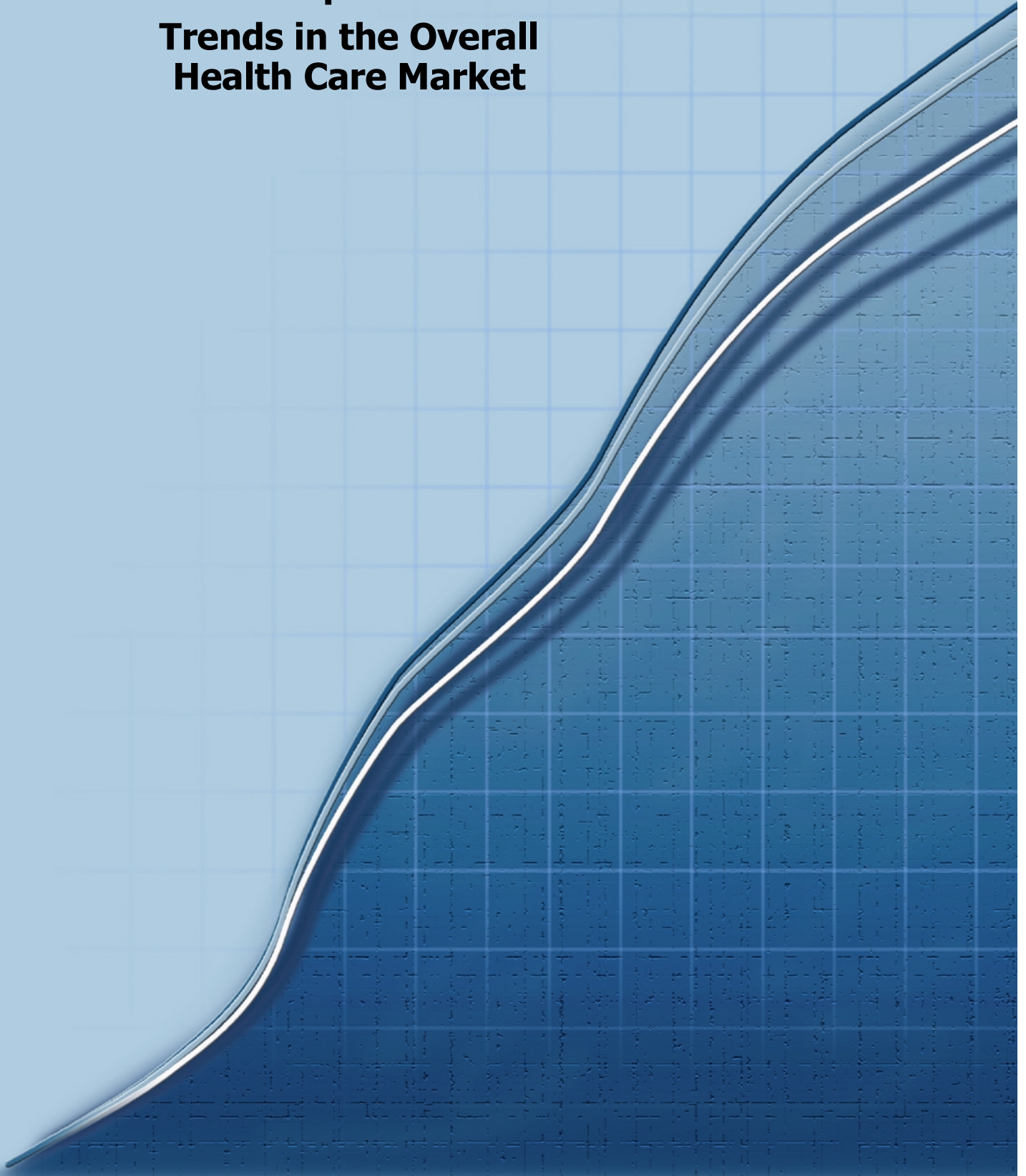
While early data indicate that overall margins for 2000 have changed little from 1999, bond rating agencies again issued more downgrades than upgrades. Moody's expects hospital credit ratings to stabilize in 2001 with analysts citing positive industry developments including BBA givebacks, the end of transition periods for mergers and acquisitions, the easing of restrictions on choice and access, and a "back to basics" focus on core operations in hospitals.

Led by a growth in prescription drug spending, national health spending grew by 5.6 percent from 1998 to 1999, nearly a point higher than the prior year's growth. Health spending as a percentage of GDP remained at 13 percent.

Public health continues to make advances in the rates of preventive care for services like mammograms and vaccinations, however, significant racial and ethnic disparities endure. Smoking, substance abuse, and obesity remain as key public health issues.

The following charts present an analysis of trends in the hospital field within the context of the broader environment for health care. Hospital data is drawn primarily from the American Hospital Association's Annual Survey from 1980 to 1999. Other data come from a variety of sources. The Chartbook begins with a chapter on overall trends in health care spending, financing and coverage. The next four chapters summarize key trends specific to the hospital field including organizational trends, volume and utilization, financing, and workforce. The final chapter looks at selected health status indicators.

Chapter 1: Trends in the Overall Health Care Market



Chapter 1: Trends in the Overall Health Care Market

National Health Spending

Total national spending on health grew by 5.6 percent from 1998 to 1999, nearly a point higher than the prior year's growth but still significantly lower than growth in the early part of the decade. Spending per capita grew by 4.7 percent. Health spending as a percentage of Gross Domestic Product remained at 13 percent (Charts 1.1 - 1.4).

Growth in spending on pharmaceuticals rose to 16.9 percent, more than triple the overall rate of growth. Growth in physician spending was just slightly higher than overall spending, while spending on hospital and nursing home care grew less. Spending on home health actually declined (Charts 1.5 - 1.6).

Growth in prescription drug spending now represents 22 percent of overall growth in national health spending. Private health insurance currently pays for a larger share of prescription drug spending than consumers (Charts 1.7 - 1.9).

Trends in Health Care Coverage and Premiums

Between 1998 and 1999 the percentage of the population uninsured nationally declined from 16.3 to 15.5. Despite this decline, more than 20 percent of the population is still uninsured in six states. New Mexico has the highest rate of uninsurance, with more than a quarter of its residents uninsured, while Rhode Island has the lowest (Charts 1.11 - 1.13). The strong economy produced very low unemployment and competition for workers may have led more employers to offer benefits. Whether this change is the beginning of a trend depends on the pace of the economy and employer response to increasing premiums.

Between 1998 and 1999, the percentage of individuals under private coverage increased slightly accounting for the decline in uninsured. Medicare and Medicaid coverage levels remained steady (Chart 1.11).



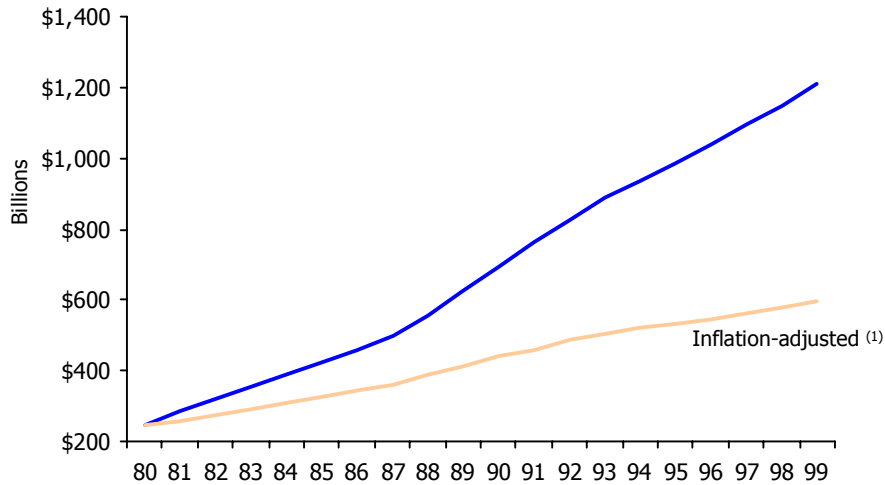
The percentage of the population under traditional indemnity type coverage fell to 8 percent in 2000. Enrollment in point-of-service plans declined after steady increases in recent years while HMO and PPO enrollment increased (Charts 1.14 - 1.15). After sharp increases between 1991 and 1998, Medicaid managed care enrollment remained constant as did the percentage of beneficiaries enrolled in Medicare HMOs (Charts 1.18 and 1.16).

As the effects of the Balanced Budget Act of 1997 continued to be felt across the health care industry, Medicare spending per beneficiary declined for only the second time in the history of the program. Meanwhile, growth in per-enrollee private health spending remained around 5.4 percent (Chart 1.17).

Private health insurance premiums jumped 8 percent in 2000 as health plans, particularly HMOs, continued to experience losses in 1999. Consumer backlash against managed care may also be contributing to increased premiums as health plans ease controls on choice and utilization (Charts 1.20 - 1.21).



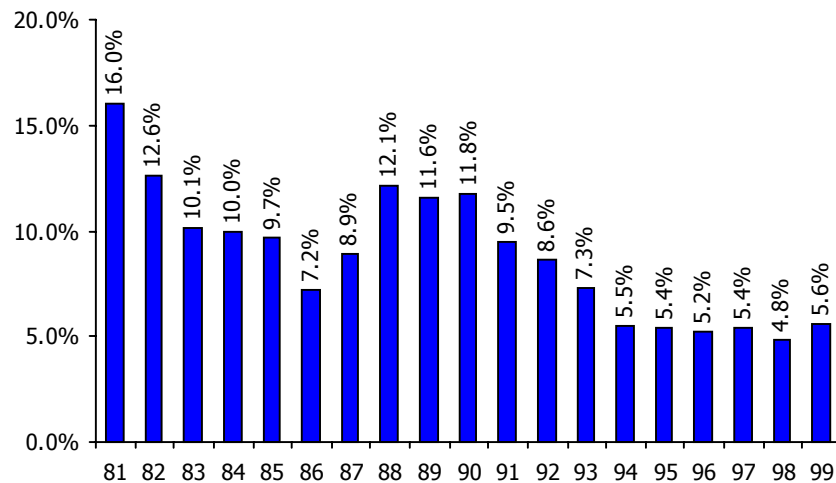
Chart 1.1:
Total National Health Expenditures
1980 - 1999



Source: Health Care Financing Administration, Office of the Actuary

(1) Expressed in 1980 dollars; adjusted using the overall Consumer Price Index for All Urban Consumers

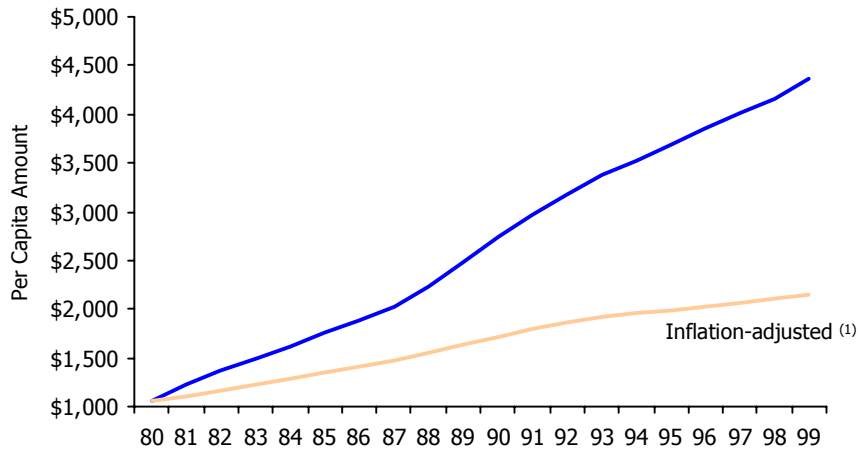
Chart 1.2:
Percent Change in Total National Health Expenditures
1981 - 1999



Source: Health Care Financing Administration, Office of the Actuary



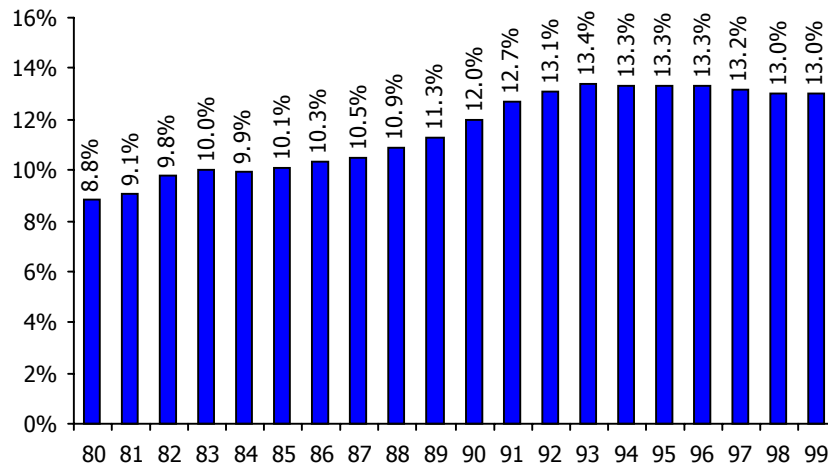
**Chart 1.3:
Per Capita National Health Expenditures
1980 - 1999**



Source: Health Care Financing Administration, Office of the Actuary

(1) Expressed in 1980 dollars; adjusted using the overall Consumer Price Index for All Urban Consumers

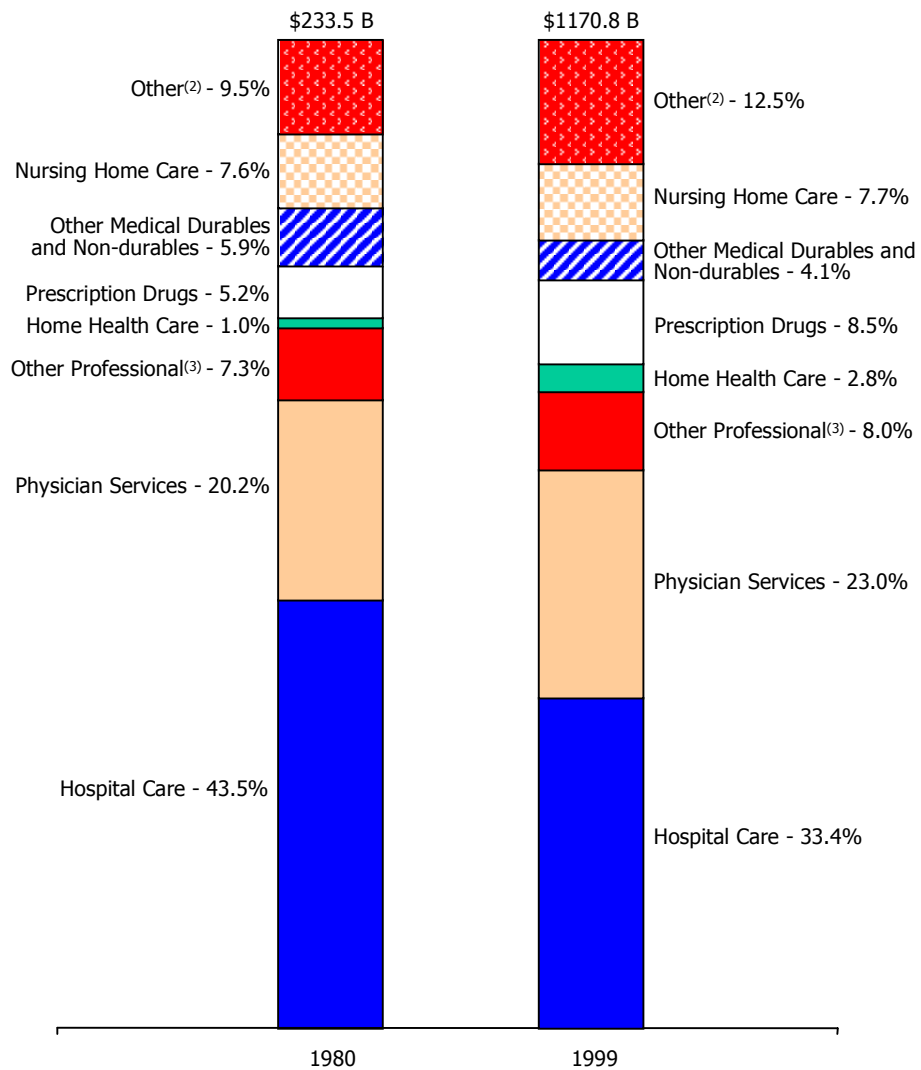
**Chart 1.4:
National Health Expenditures
as a Percent of Gross Domestic Product
1980 - 1999**



Source: Health Care Financing Administration, Office of the Actuary



**Chart 1.5:
National Health Expenditures for Health Services
and Supplies⁽¹⁾ by Category
1980 and 1999**

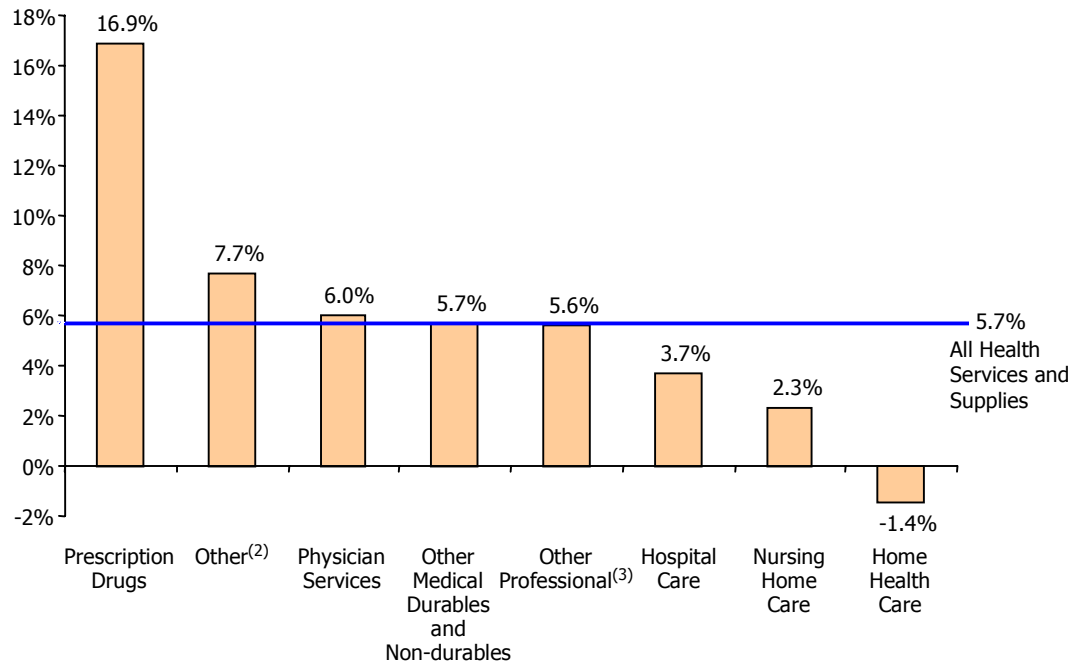


Source: Health Care Financing Administration, Office of the Actuary

- (1) Excludes medical research and medical facilities construction
- (2) "Other" includes net cost of insurance and administration, government public health activities, and other personal health care
- (3) "Other professional" includes dental and other non-physician professional services



**Chart 1.6:
Percent Change in National Health Expenditures for
Health Services and Supplies⁽¹⁾ by Category
1998 -1999**

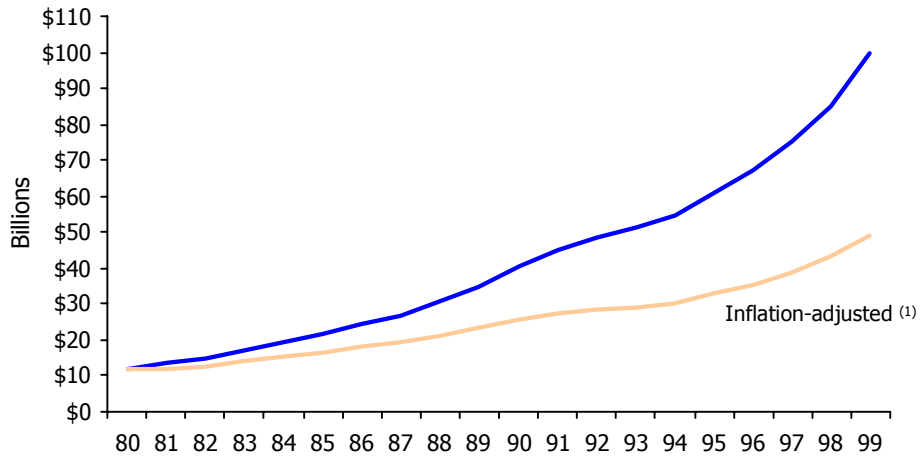


Source: Health Care Financing Administration, Office of the Actuary

- (1) Excludes medical research and medical facilities construction
- (2) "Other" includes net cost of insurance and administration, government public health activities, and other personal health care
- (3) "Other professional" includes dental and other non-physician professional services



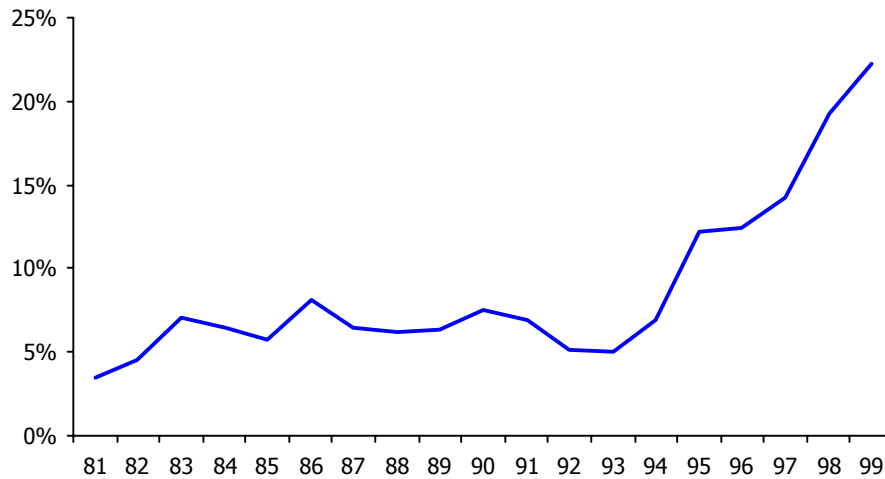
**Chart 1.7:
Total Prescription Drug Spending
1980 - 1999**



Source: Health Care Financing Administration, Office of the Actuary

(1) Expressed in 1980 dollars; adjusted using the overall Consumer Price Index for All Urban Consumers

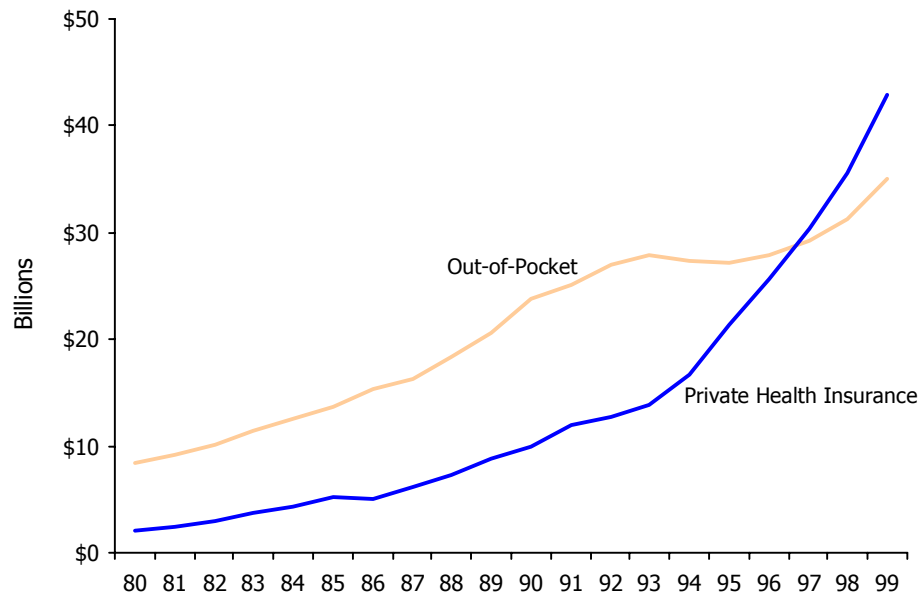
**Chart 1.8:
Growth in Total Prescription Drug Spending
as a Percent of Total Growth in National Health Expenditures
1981 - 1999**



Source: Health Care Financing Administration, Office of the Actuary



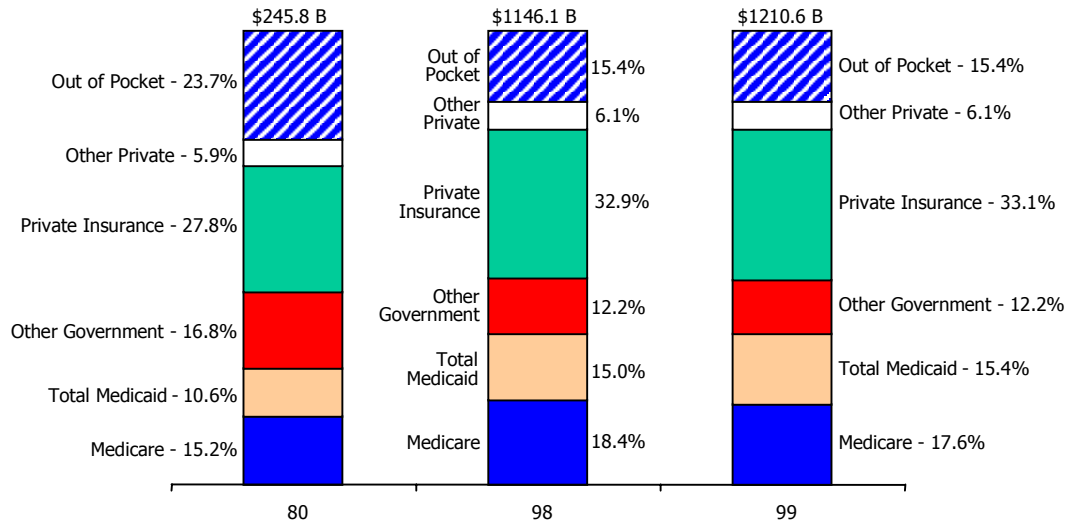
**Chart 1.9:
Consumer Out-of-Pocket Spending
vs. Private Health Insurance Spending
for Prescription Drugs
1980 - 1999**



Source: Health Care Financing Administration, Office of the Actuary

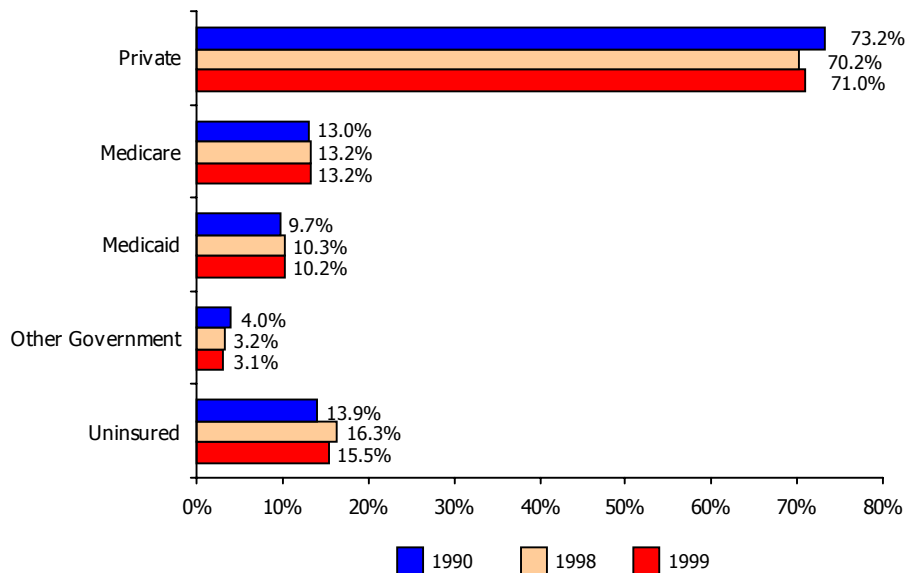


**Chart 1.10:
Distribution of National Health Expenditures
by Source of Payment
1980, 1998, and 1999**



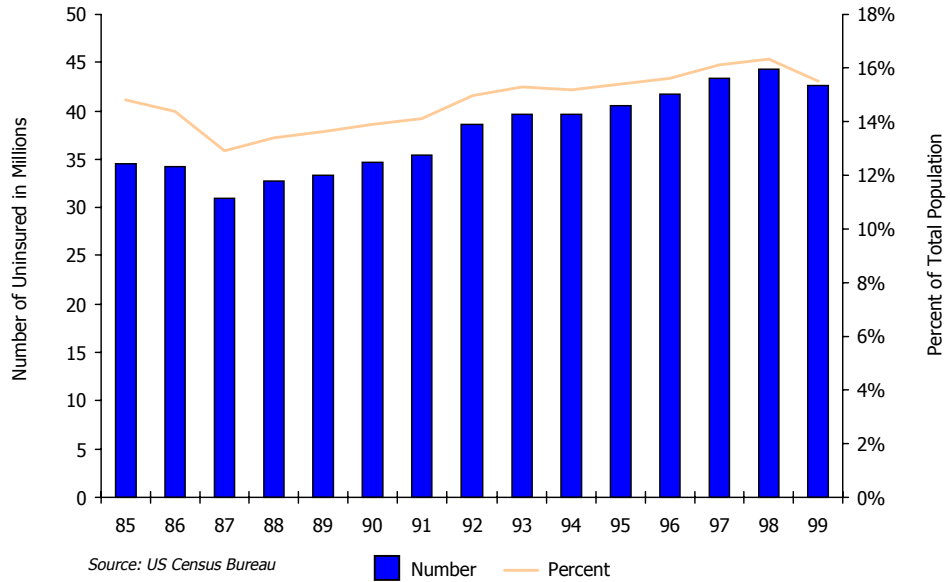
Source: Health Care Financing Administration, Office of the Actuary

**Chart 1.11:
Distribution of Health Insurance Coverage
Percent of Population Covered by Payer
1990, 1998, and 1999**



Source: US Census Bureau

**Chart 1.12:
 Number and Percent Uninsured
 1985 - 1999**



**Chart 1.13:
 Percent Uninsured by State
 1999**

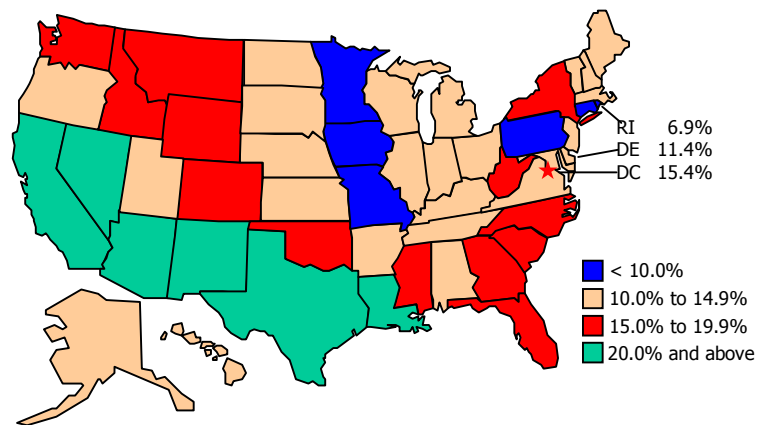
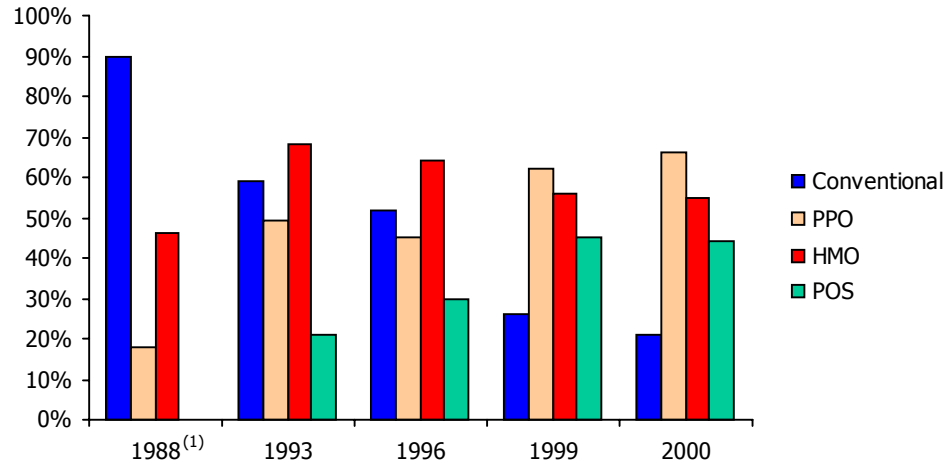




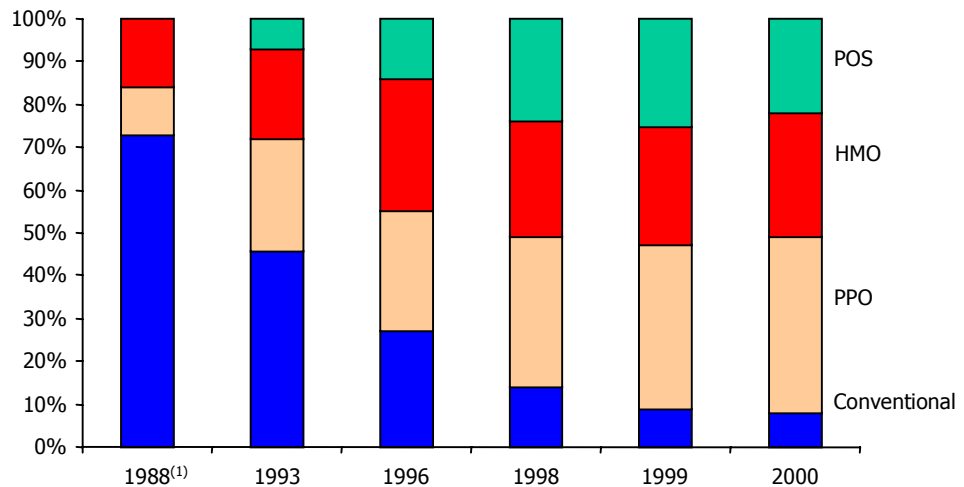
Chart 1.14:
Percent of Employees with Employer-based Coverage
Who Can Choose Conventional, PPO, HMO and POS Plans
1988 - 2000



Source: The Kaiser Family Foundation and Health Research and Educational Trust, Employer Health Benefits 2000 Annual Survey

⁽¹⁾ Point-of-service plans not separately identified

Chart 1.15:
Distribution of Employer-sponsored Health Insurance Enrollment
by Type of Plan
1988 - 2000

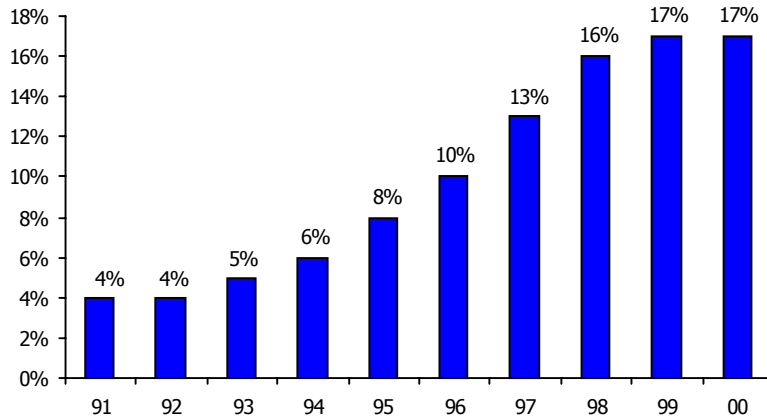


Source: The Kaiser Family Foundation and Health Research and Educational Trust, Employer Health Benefits 2000 Annual Survey

⁽¹⁾ Point-of-service plans not separately identified



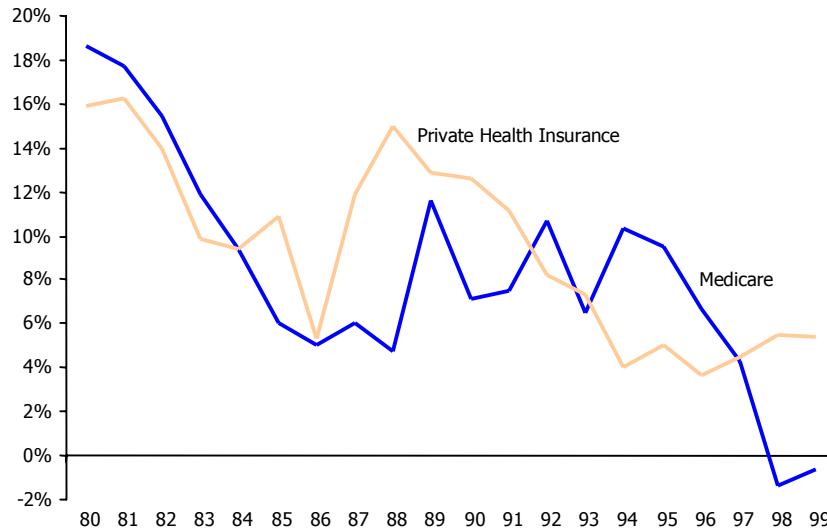
**Chart 1.16:
Percent of Medicare Beneficiaries Enrolled
in Medicare Managed Care
1991 - 2000**



Source: Health Care Financing Administration, Office of the Actuary

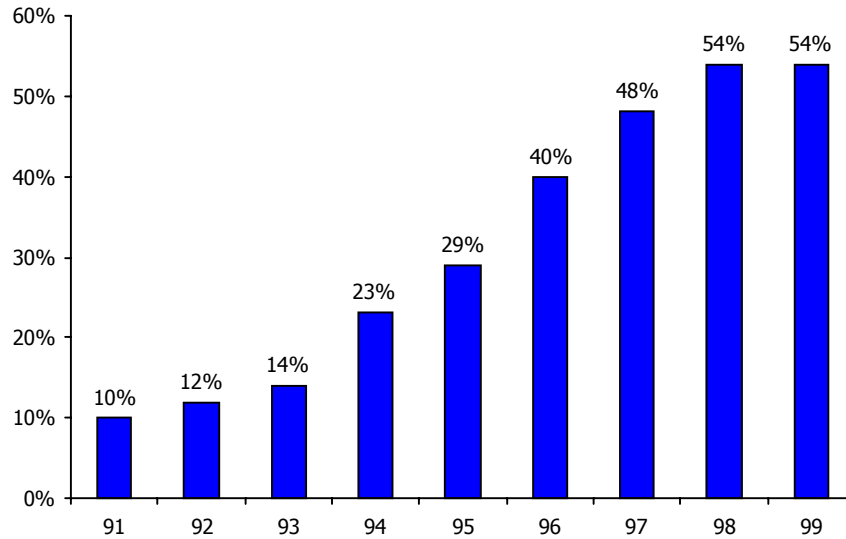
* Percentages are risk enrollees divided by enrollees who have both hospital insurance and supplementary medical insurance

**Chart 1.17:
Growth in Medicare Spending per Beneficiary vs.
Private Health Insurance Spending per Enrollee
1980 - 1999**



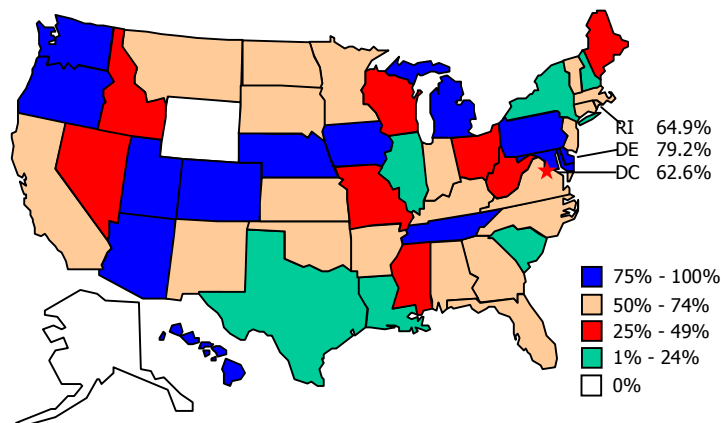
Source: Health Care Financing Administration, Office of the Actuary

Chart 1.18:
Percent of Medicaid Beneficiaries Enrolled
in Medicaid Managed Care
1991 - 1999



Source: Health Care Financing Administration, Office of the Actuary

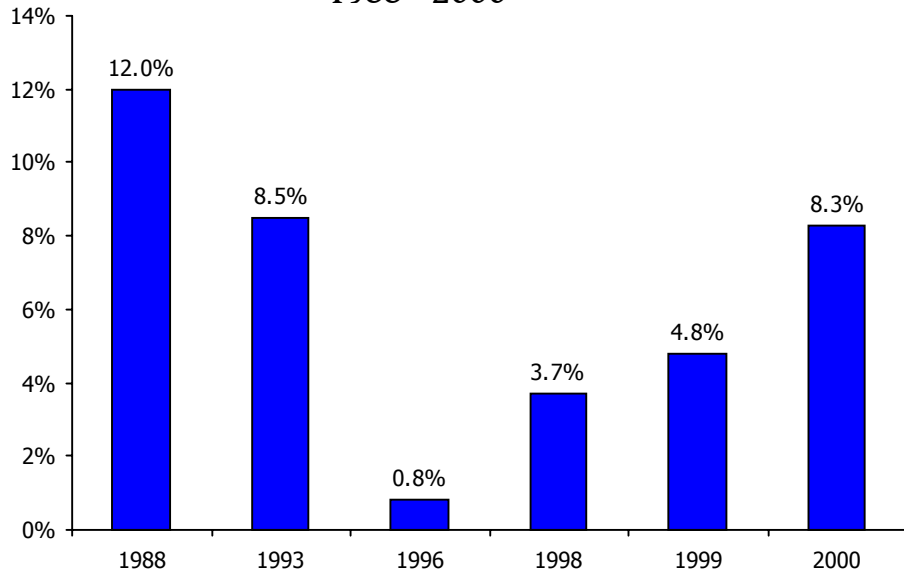
Chart 1.19:
Percent of Medicaid Beneficiaries Enrolled
in Medicaid Managed Care by State
1999



Source: Health Care Financing Administration, Office of the Actuary

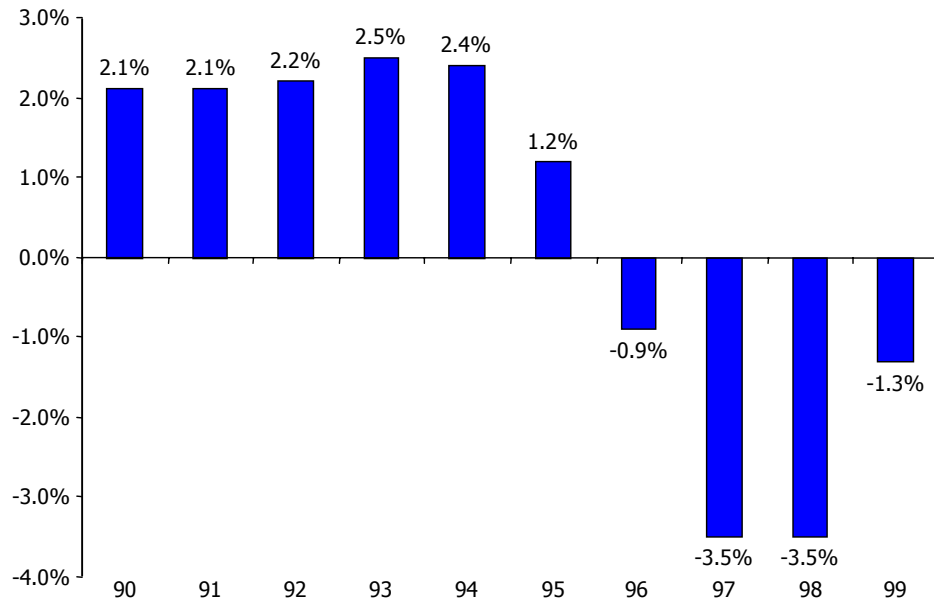


Chart 1.20:
Annual Change in Health Insurance Premiums
1988 - 2000



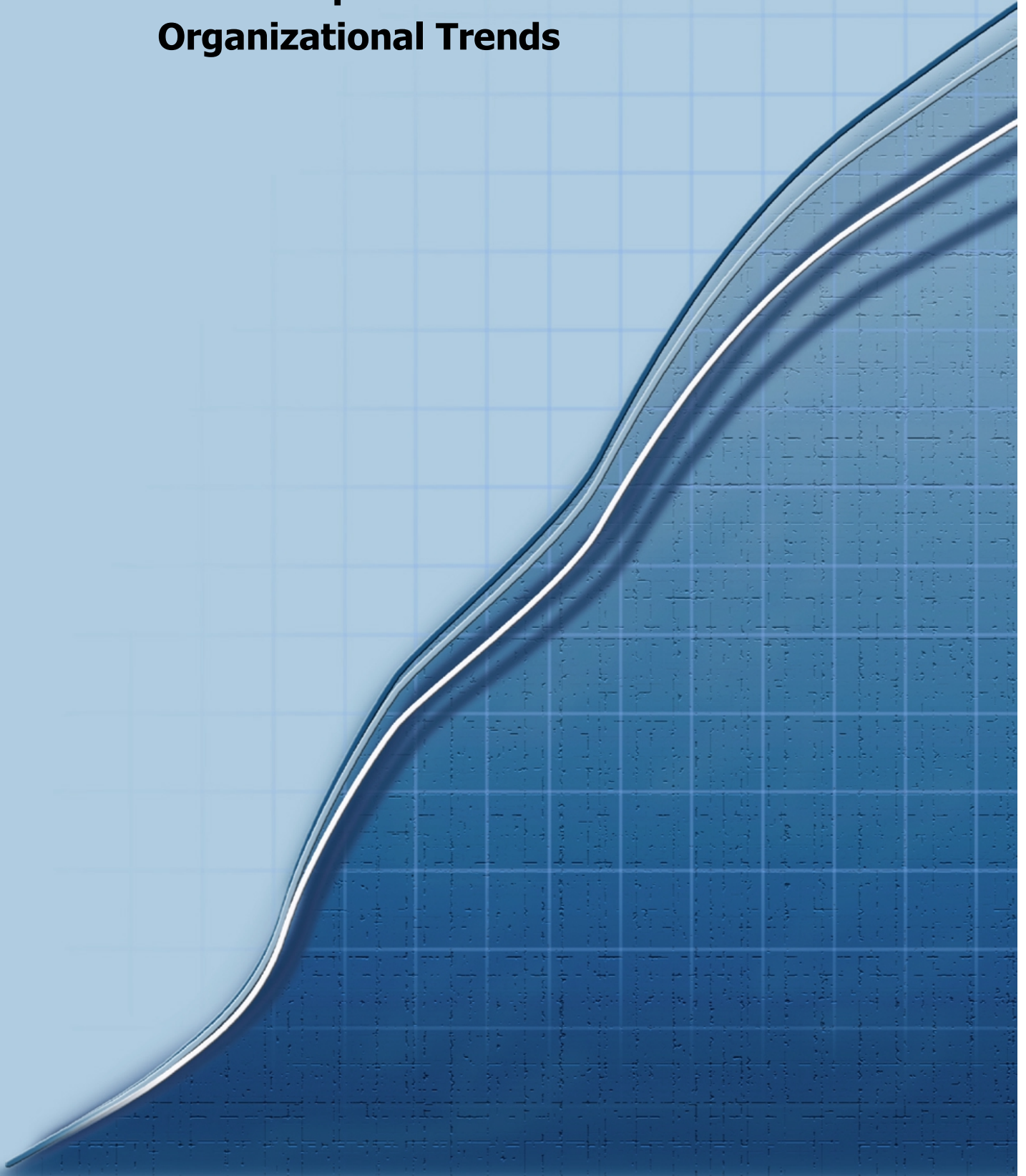
Source: The Kaiser Family Foundation and Health Research and Educational Trust, Employer Health Benefits 2000 Annual Survey

Chart 1.21:
HMO Plan Median Operating Margins
1990 - 1999



Source: Interstudy Competitive Edge: HMO Industry Report 10.2

Chapter 2: Organizational Trends





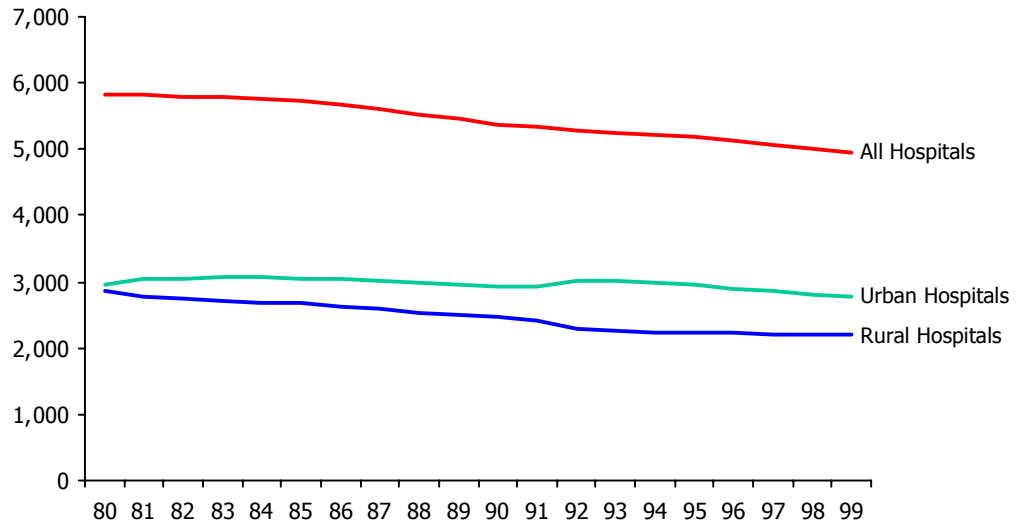
Chapter 2: Organizational Trends

Hospitals continue to modify their organizational structure and services offered in response to the changing health care environment and consumer demand. The number of community hospitals slipped under 5,000 in 1999. Hospital beds and beds per thousand population are still decreasing though there remains significant variation across states. Meanwhile, hospital outpatient revenue is increasing; outpatient revenue now represents 34 percent of total hospital revenues, up from 13 percent in 1980 (Charts 2.1 - 2.4).

After declining between 1997 and 1998, the number of hospitals in systems increased in 1999. Horizontal integration strategies can help hospitals achieve economies of scale and increase market leverage. On the other hand, hospitals continued the recent shift away from vertical integration. The percentage of hospitals engaging in various physician relationships or offering insurance products declined again in 1999 after steady increases through the mid-nineties. Hospitals also continued their pull back from non-hospital services including home health, hospice, skilled nursing, and long term care. Medicare reimbursement pressures likely played a role (Charts 2.5 - 2.8).



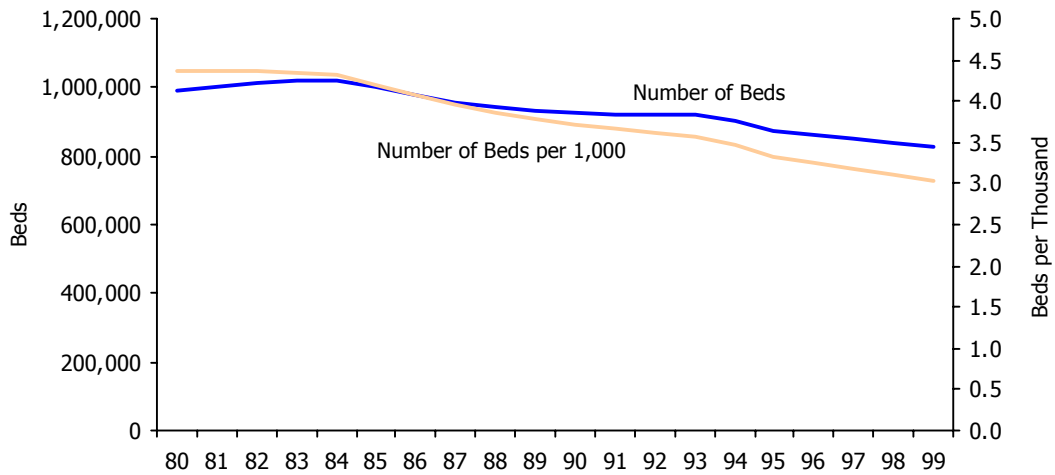
**Chart 2.1:
Number of Community Hospitals⁽¹⁾
1980 - 1999**



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1986 - 1999 for community hospitals

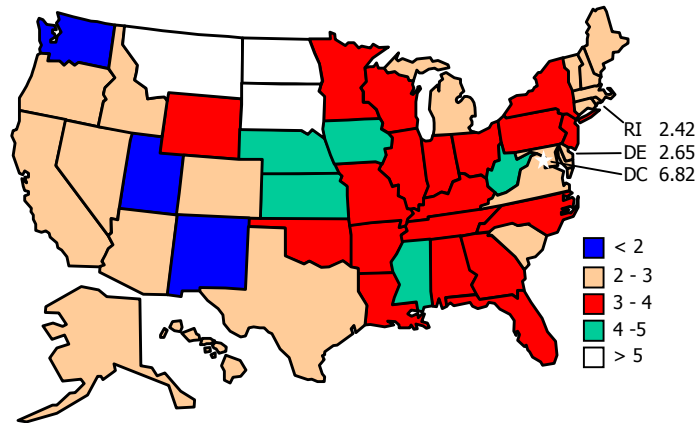
⁽¹⁾ All nonfederal, short-term general, and special hospitals whose facilities and services are available to the public.

**Chart 2.2:
Number of Beds
and Number of Beds per 1,000 Persons
1980 - 1999**



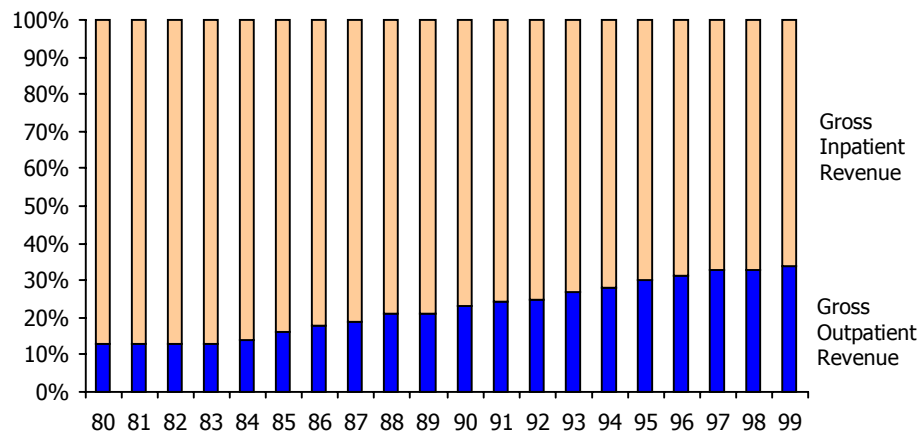
Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

Chart 2.3:
Beds per 1,000 by State
1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1999 for community hospitals

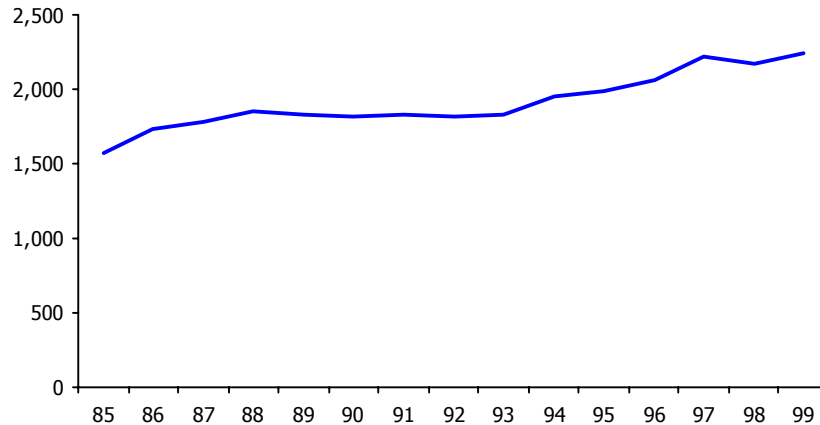
Chart 2.4:
Distribution of Outpatient vs. Inpatient Revenues
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals



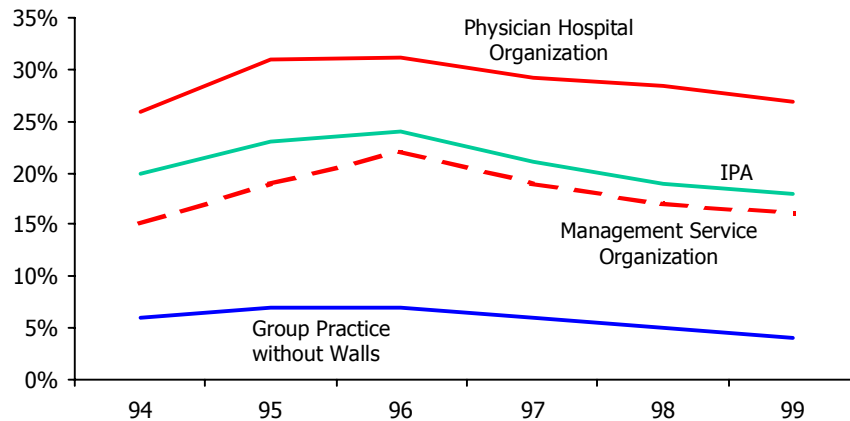
Chart 2.5:
Number of Hospitals in Health Systems⁽¹⁾
 1985 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1985 - 1999 for community hospitals

⁽¹⁾ Hospitals that are part of a corporate body that may own and/or manage health provider facilities or health-related subsidiaries as well as non-health-related facilities including freestanding and/or subsidiary corporations

Chart 2.6:
Percent of Hospitals with Physician Affiliates⁽¹⁾
by Type of Relationship
 1994 - 1999

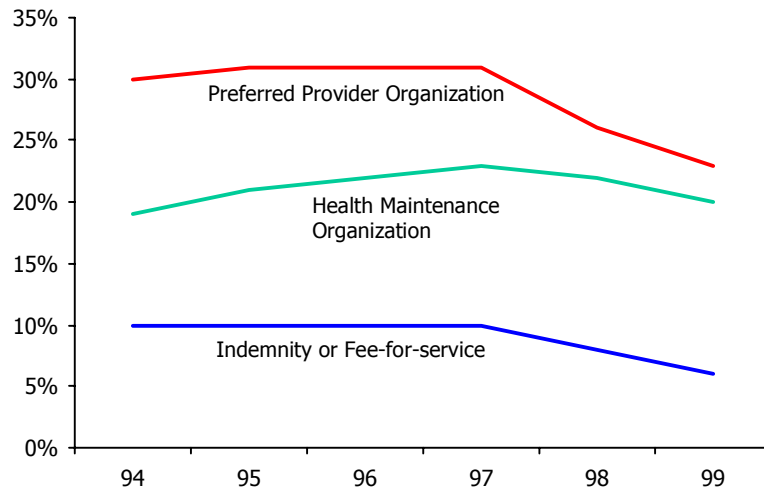


Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1994 - 1999 for community hospitals

⁽¹⁾ A hospital is considered to have a physician relationship if the relationship exists as part of the hospital or a system or network of which the hospital is a part

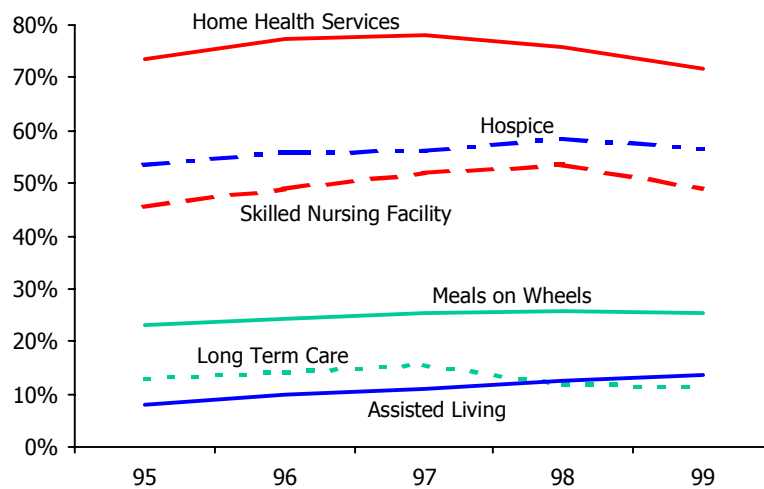


Chart 2.7:
Percent of Hospitals with Insurance Products
by Type of Insurance
1994 - 1999



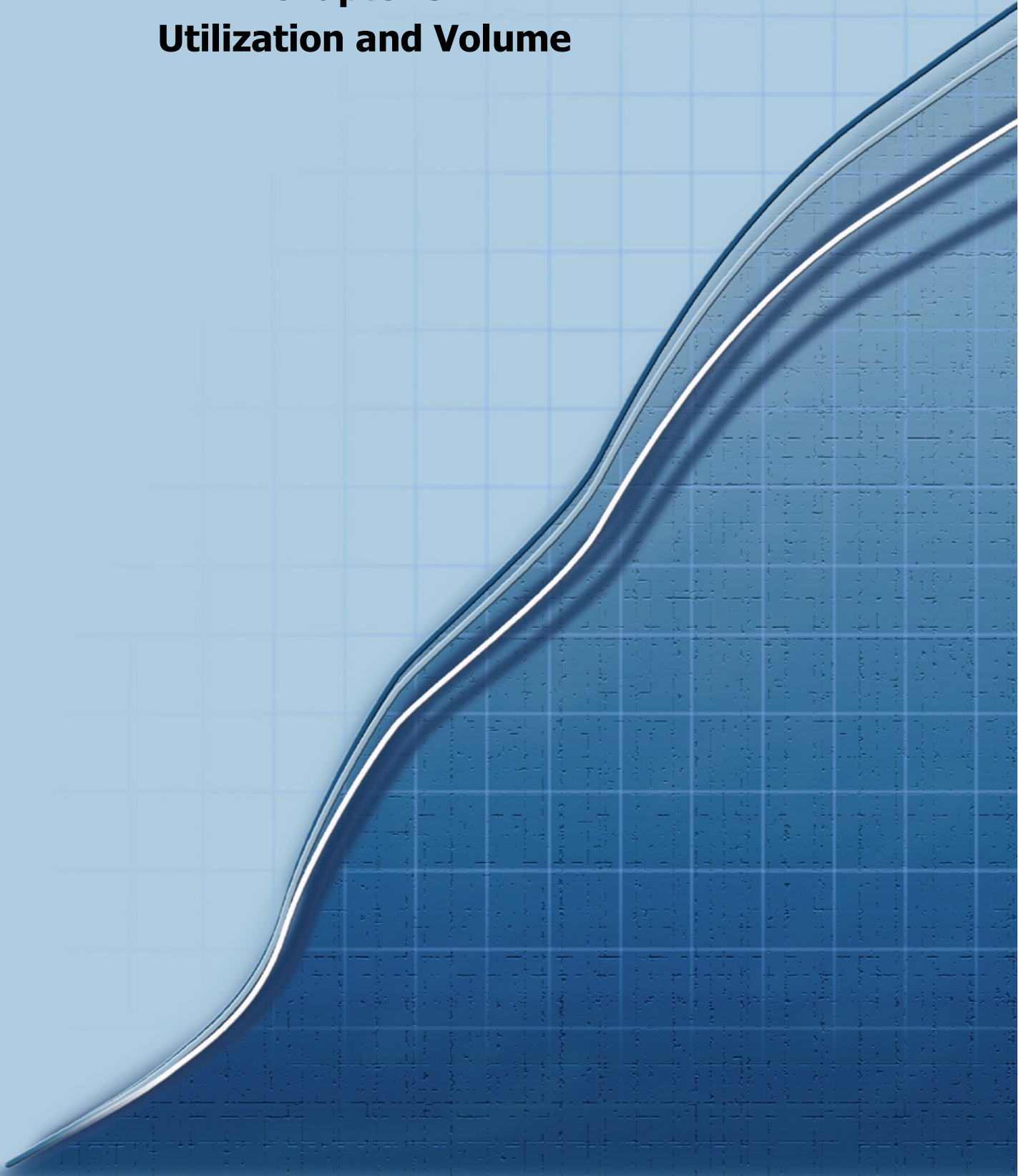
Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1994 - 1999 for community hospitals

Chart 2.8:
Percent of Hospitals Offering “Non-hospital” Services
1995 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1995 - 1999 for community hospitals

Chapter 3: Utilization and Volume



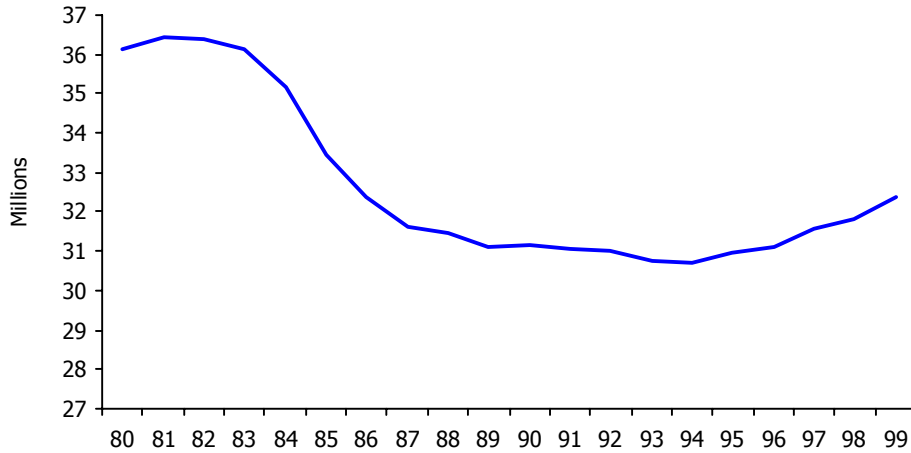
Chapter 3: Utilization and Volume

Hospital days rose for the first time in decades. Hospital days are a product of admissions and length of stay. Average length of stay continued to decline but not enough to counteract an increase in both inpatient admissions and admissions per thousand population. This increase in hospital days reverses a trend that was expected to continue for many years as the influence of managed care spread across the country. Whether this increase is just an anomaly or the beginning of a new trend remains to be seen. Preliminary data for 2000 show a continuing increase. The managed care backlash, population growth and aging, and a particularly heavy flu season may be drivers of this increased utilization (Charts 3.1 - 3.8).

Outpatient visits have more than doubled since 1980, and outpatient utilization rates continue to increase at a rapid clip. Outpatient surgeries now represent 62 percent of all surgeries (Charts 3.9 - 3.11).

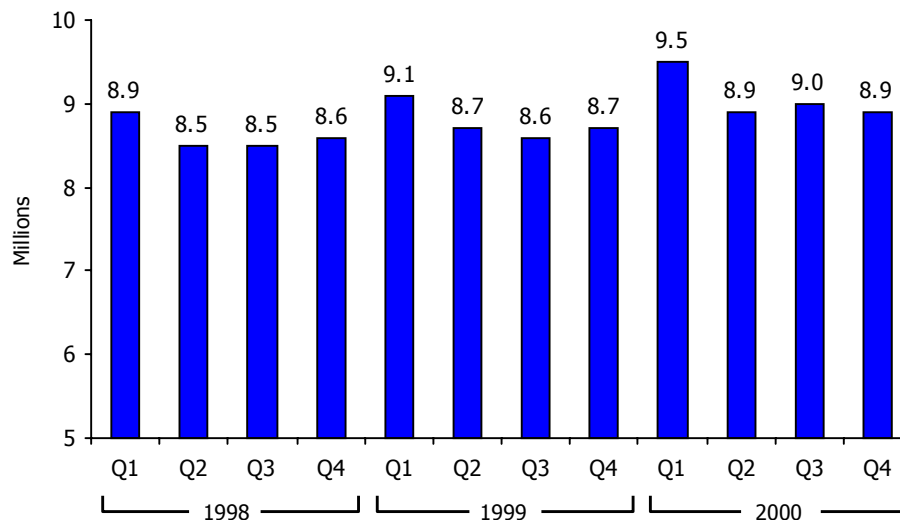


Chart 3.1:
Inpatient Admissions in Community Hospitals
 1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

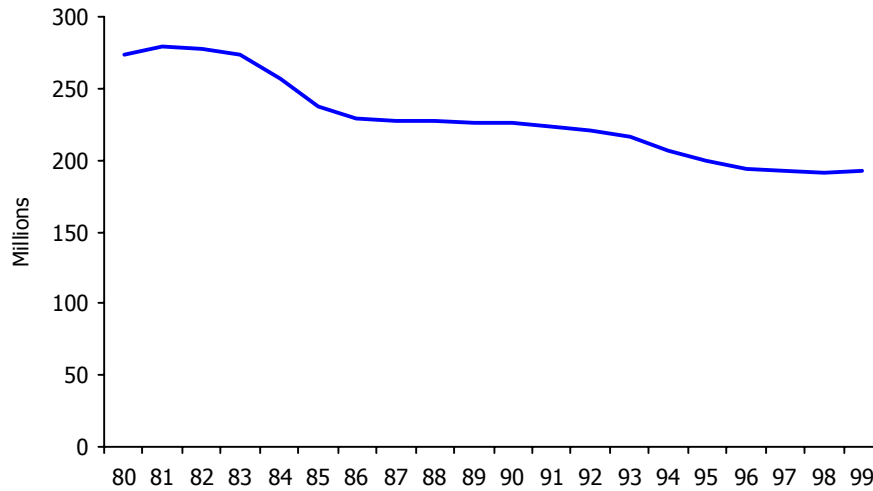
Chart 3.2:
Inpatient Discharges by Calendar Quarter
 1998 - 2000



Source: National Hospital Indicator Survey, first quarter 1998 - fourth quarter 2000

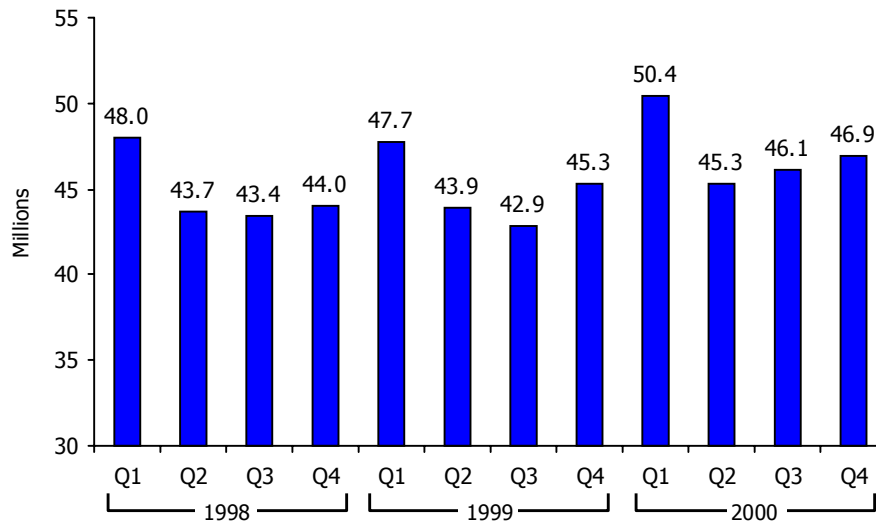


Chart 3.3:
Total Inpatient Days in Community Hospitals
 1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

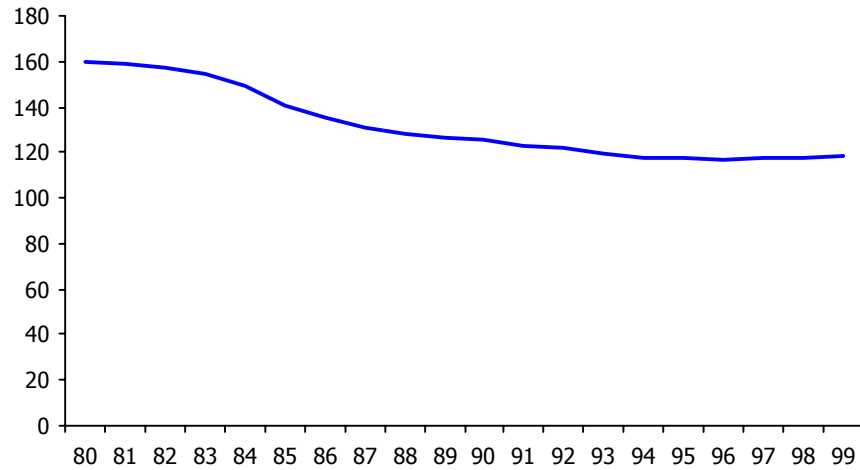
Chart 3.4:
Inpatient Days by Calendar Quarter
 1998 - 2000



Source: National Hospital Indicator Survey, first quarter 1998 - fourth quarter 2000

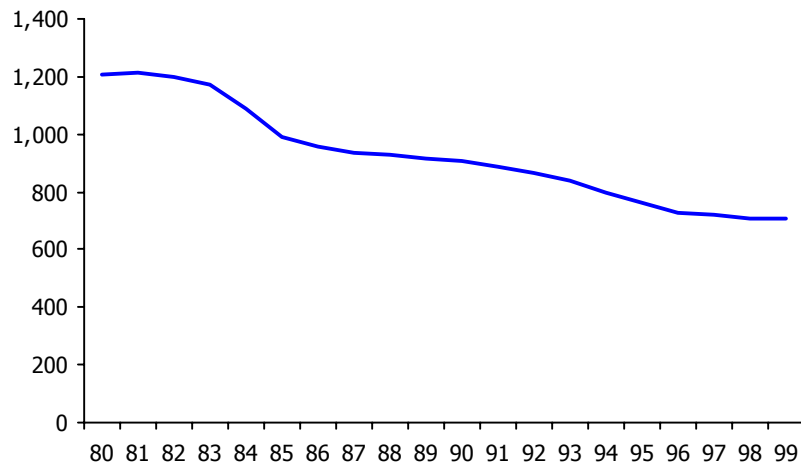


Chart 3.5:
Inpatient Admissions per 1,000 Persons
 1980 - 1999



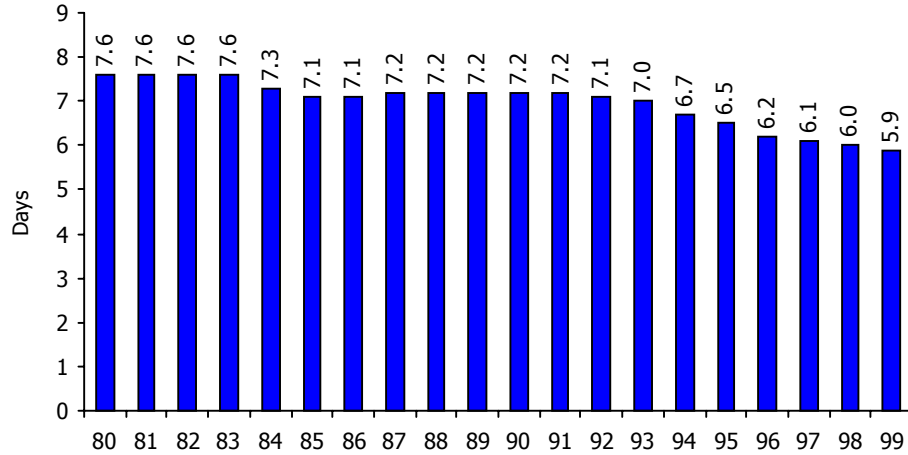
Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals and US Census Bureau data

Chart 3.6:
Inpatient Days per 1,000 Persons
 1980 - 1999



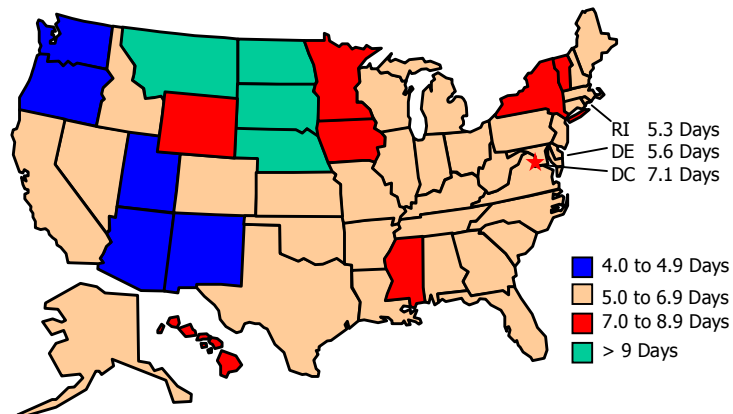
Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals and US Census Bureau data

Chart 3.7:
Average Length of Stay in Community Hospitals
 1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

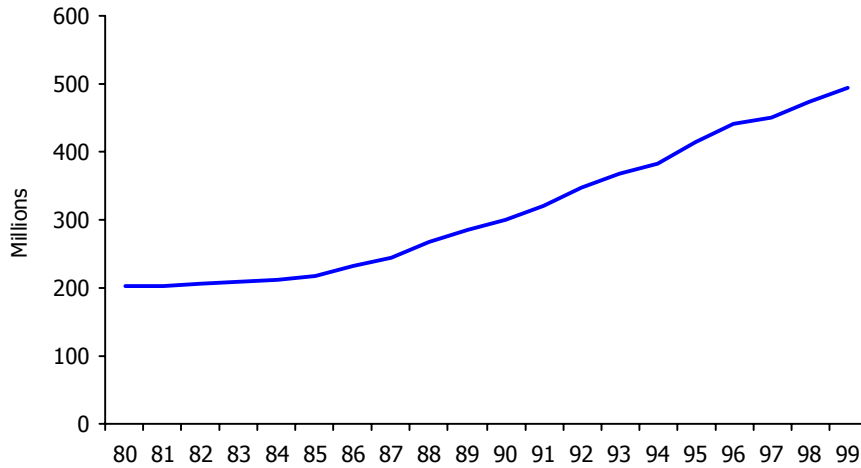
Chart 3.8:
Average Length of Stay in Community Hospitals
 by State
 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1999 for community hospitals

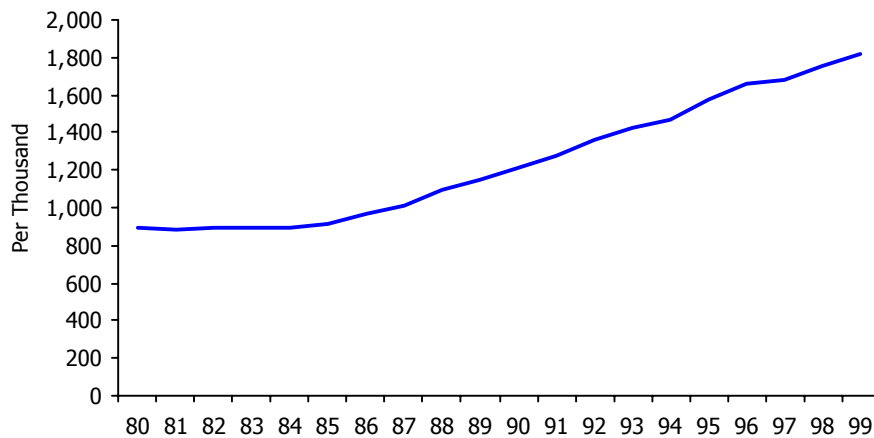


**Chart 3.9:
Total Hospital Outpatient Visits
in Community Hospitals
1980 - 1999**



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

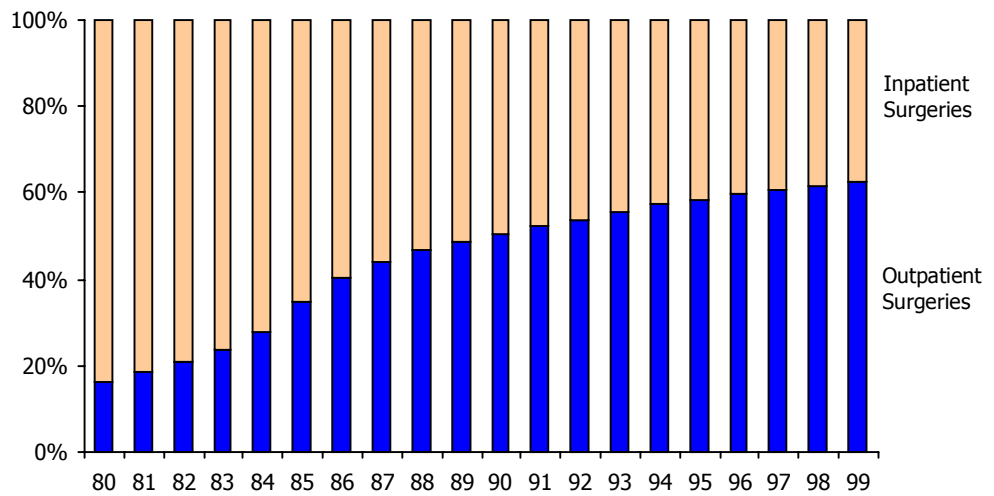
**Chart 3.10:
Hospital Outpatient Visits per 1,000 Persons
1980 - 1999**



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals and US Census Bureau data

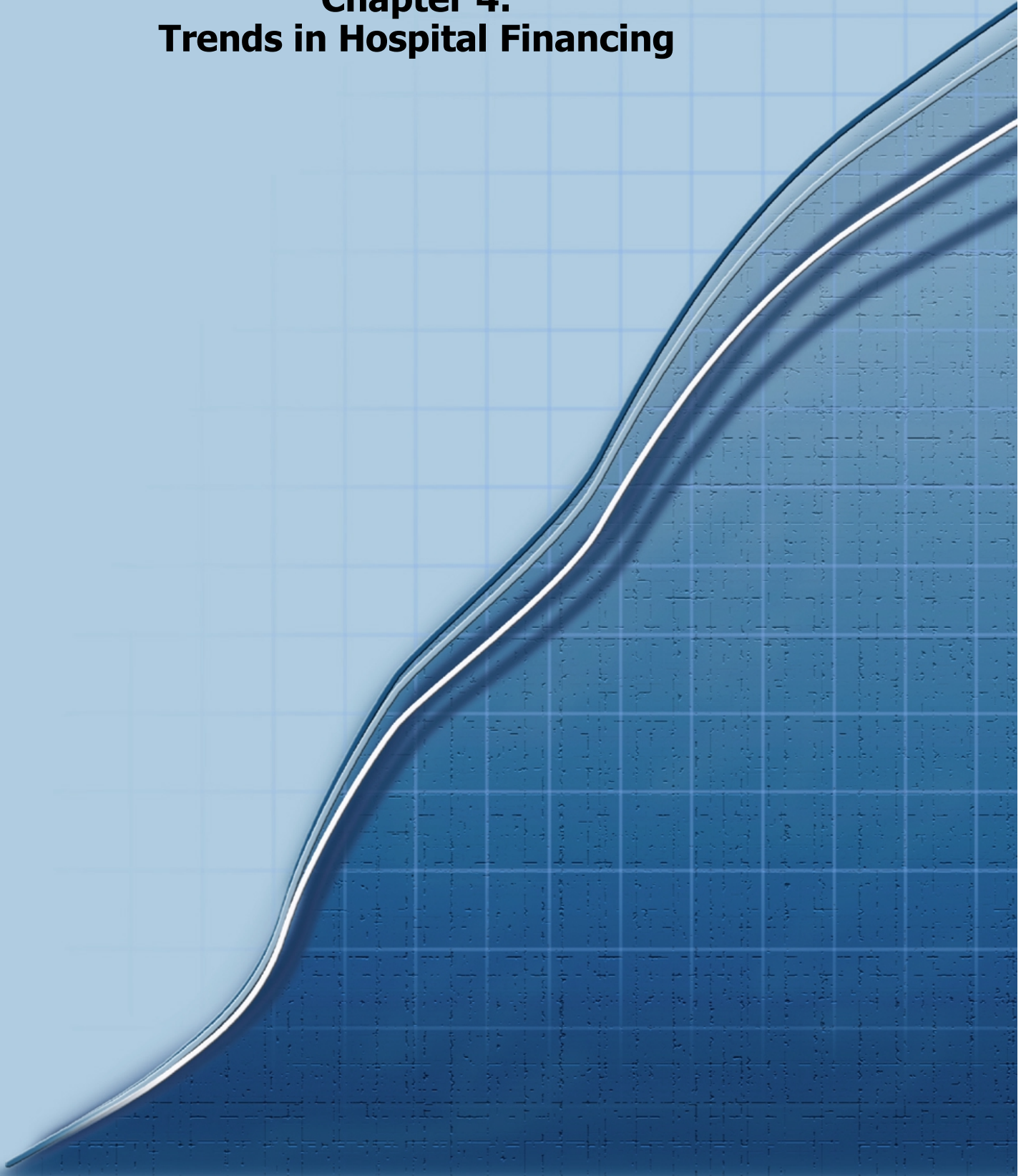


Chart 3.11:
Percentage Share of Inpatient vs. Outpatient Surgeries
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

Chapter 4: Trends in Hospital Financing



Chapter 4: Trends in Hospital Financing

Overall Financial Performance

Aggregate total hospital margins declined by more than a point to 4.6 percent between 1998 and 1999. Hospital operating revenue per adjusted admission increased by 0.9 percent while operating expenses went up by 1.9 percent. The percent of hospitals with negative margins jumped to 32.5 percent (Charts 4.1 - 4.3).

After increasing from 1994 to 1998, aggregate non-operating gains (e.g., income from investments) declined as a percentage of total net revenue. At 2.6 percent of revenue, non-operating gains make up more than half of the aggregate total margin, a concern as the stock market enters a bear market (Chart 4.4).

Early data for 2000 are mixed with first quarter operating margins down relative to the prior year and second quarter results up. Bond rating agency downgrades still outnumbered upgrades in 2000 by almost five to one (Charts 4.5 - 4.6).

Payer Mix

Since 1980 hospital reliance on Medicare and Medicaid has increased. In 1980 Medicare represented 35 percent of total costs, growing to 38 percent by 1999. Over the same period, Medicaid increased from 10 percent to 13 percent. Meanwhile, private payers' share of costs decreased from 42 percent to 39 percent and uncompensated care increased from five percent to six percent of total costs (Chart 4.7).



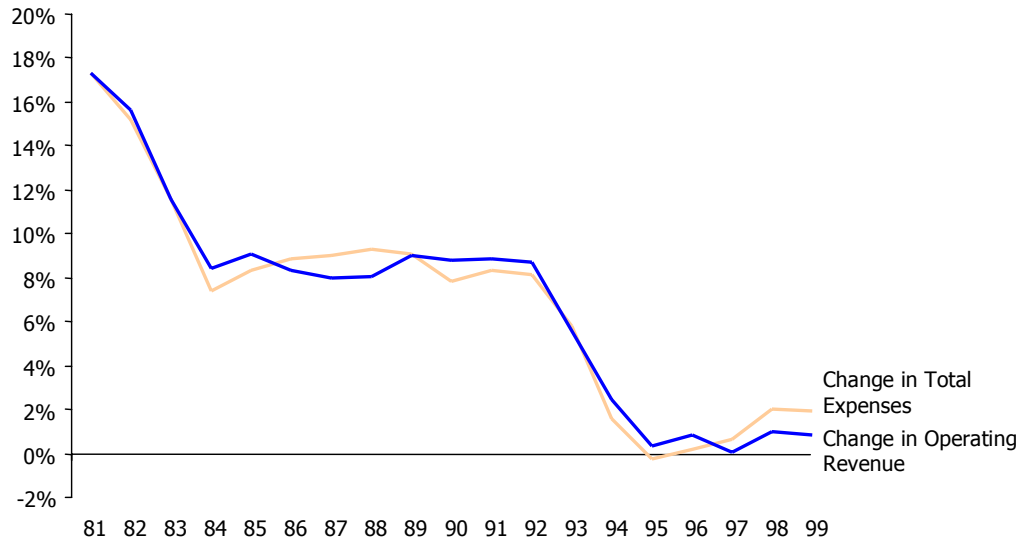
Payer Performance

After hovering above 100 percent for 3 years, aggregate Medicare payments fell below costs. In the past, payment-to-cost ratios for Medicare and the private sector have generally trended in opposite directions — when Medicare payment-to-cost ratios fell, private sector ratios went up and *vice versa*. This pattern has helped to stabilize hospital margins. In 1998 and again in 1999, however, both Medicare and private sector payment-to-cost ratios fell. Medicaid payment-to-cost ratios also were down. This decline across all three major payer groups drove the decline in aggregate total margin noted earlier (Chart 4.8).

In 1999, the Medicare Balanced Budget Refinement Act (BBRA) returned approximately \$8.4 billion in Medicare payments to hospitals over the five-year period from 2000 to 2004. In 2000, the Medicare Benefits Improvement and Protection Act of 2000 (BIPA), provided additional relief of \$11 billion from 2001 through 2005. Despite BBRA and BIPA relief, overall payment reductions to hospitals still total \$140 billion from 1998 to 2005. If hospital costs grow at the rate of inflation, Medicare margins will fall to around negative four percent — with 65 percent of hospitals losing money on Medicare services — by 2005 (Chart 4.9).



**Chart 4.1:
Annual Change in Hospital Operating Revenue and Expenses
per Adjusted Admission⁽¹⁾
1981 - 1999**

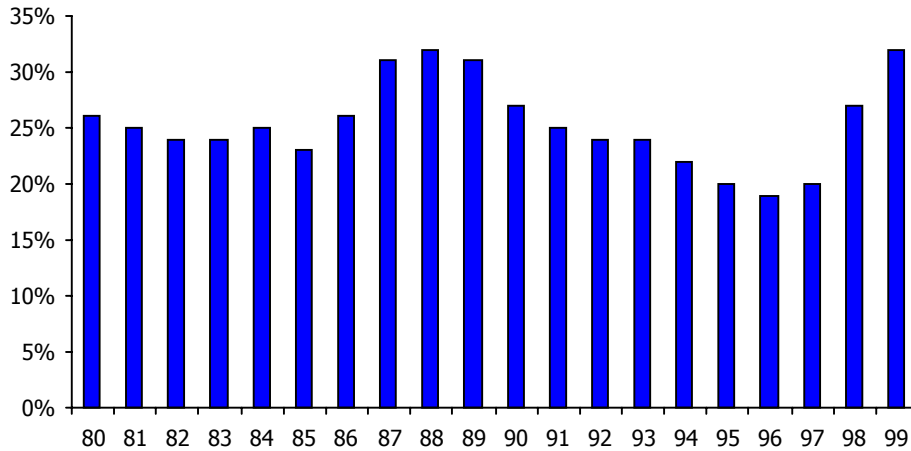


Source: The Lewin Group Analysis of the American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

⁽¹⁾ An aggregate measure of workload reflecting the number of inpatient admissions, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient admission in terms of level of effort

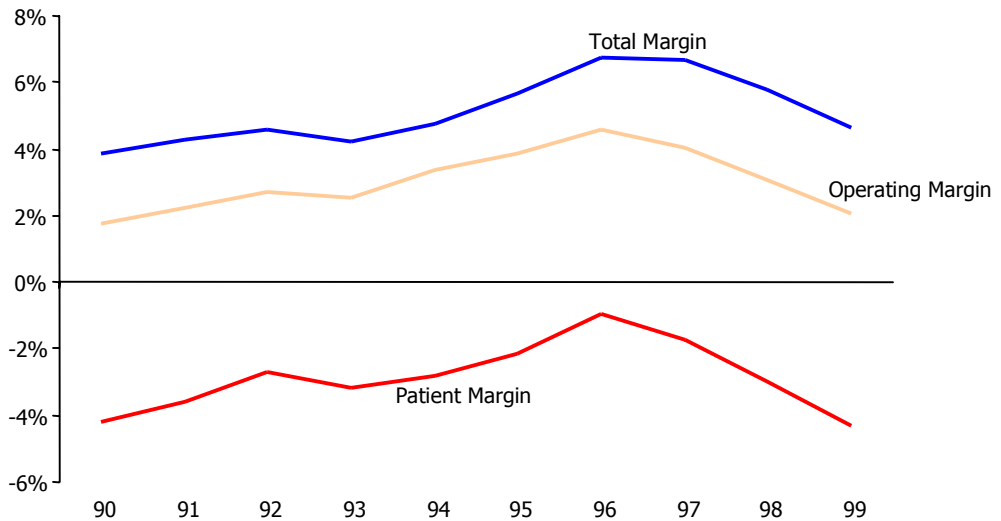


Chart 4.2:
Percent of Hospitals with Negative Total Margins
 1980 - 1999



Source: The Lewin Group Analysis of the American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

Chart 4.3:
Aggregate Total Hospital Margins⁽¹⁾, Operating Margins⁽²⁾, and Patient Margins⁽³⁾
 1990 - 1999

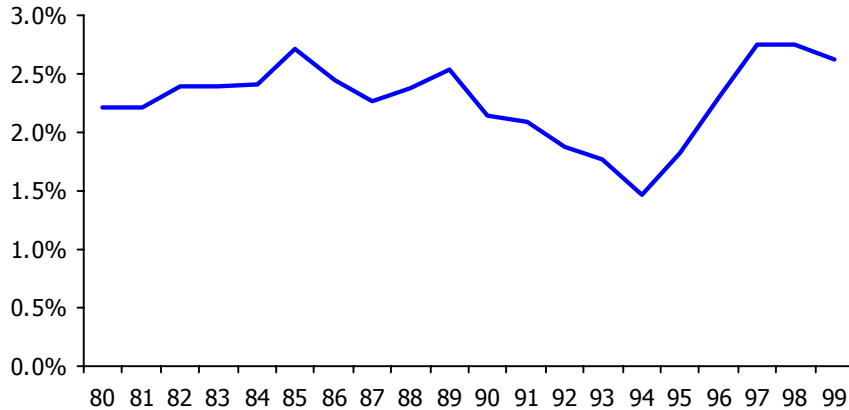


Source: The Lewin Group Analysis of the American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

⁽¹⁾ Total Hospital Margin is calculated as the difference between total net revenue and total expenses divided by total net revenue
⁽²⁾ Operating Margin is calculated as the difference between operating revenue and total expenses divided by operating revenue
⁽³⁾ Patient Margin is calculated as the difference between net patient revenue and total expenses divided by net patient revenue



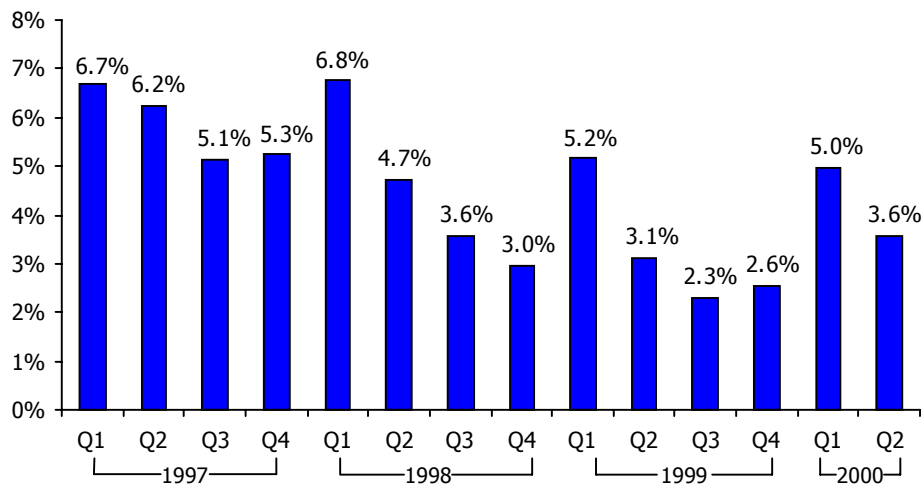
Chart 4.4:
Income from Investments and Other Non-operating Gains⁽¹⁾
as a Percent of Total Net Revenue
1980 - 1999



Source: The Lewin Group analysis of the American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

⁽¹⁾ Non-operating gains include income from non-operating activities, including investments, endowments and extraordinary gains, as well as the value of non-realized gains from investments

Chart 4.5:
Hospital Quarterly Operating Margins⁽¹⁾
1997 - Second Quarter 2000

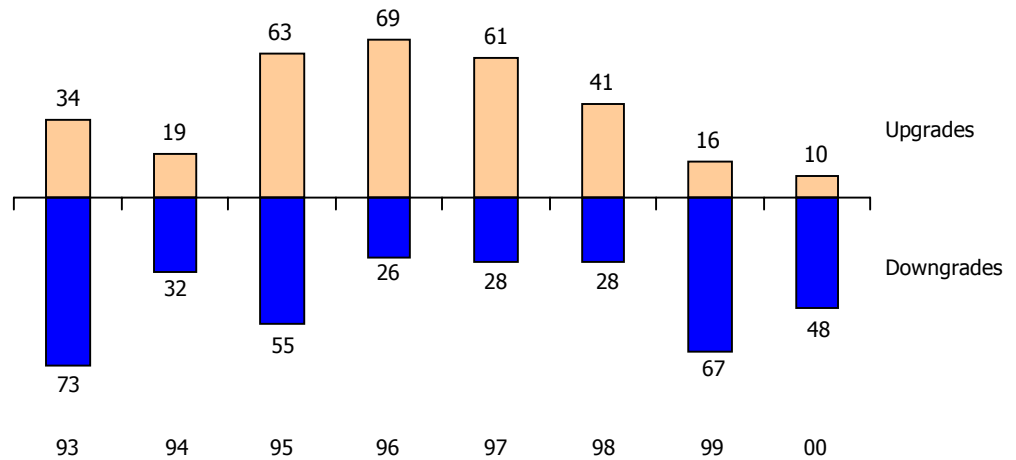


Source: HBS International, Inc., The Health of Our Nation's Hospitals 1997 through Second Quarter 2000; based on 341 geographically distributed hospitals that are primarily non-profit facilities

⁽¹⁾ Operating margin is calculated as the difference between total operating revenue and total operating expense divided by total operating revenue; operating margins exclude non-operating revenues

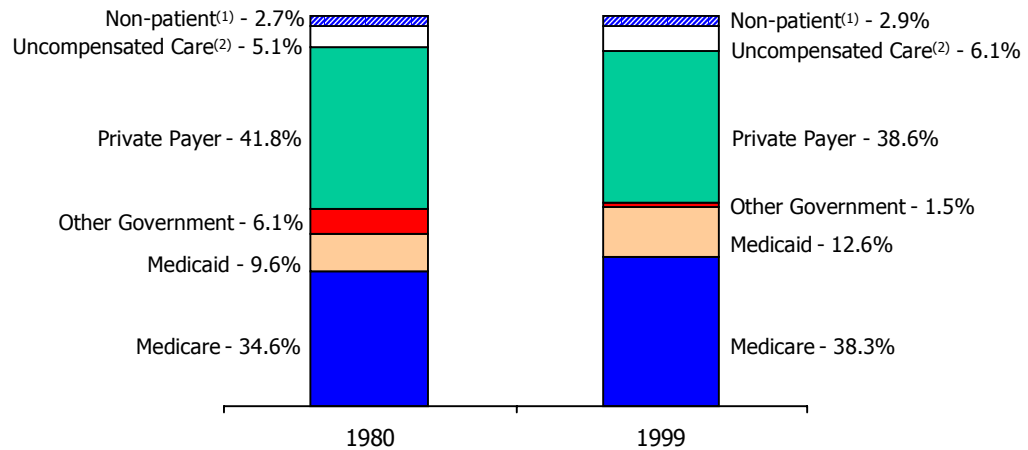


Chart 4.6:
Number of Bond Rating Upgrades and Downgrades
of Non-profit Hospitals
1993 - 2000



Source: Standard & Poor's CreditWeek Municipal, October 23, 2000; 2000 data through October 9, 2000

Chart 4.7:
Distribution of Hospital Cost by Payer Type
1980 and 1999



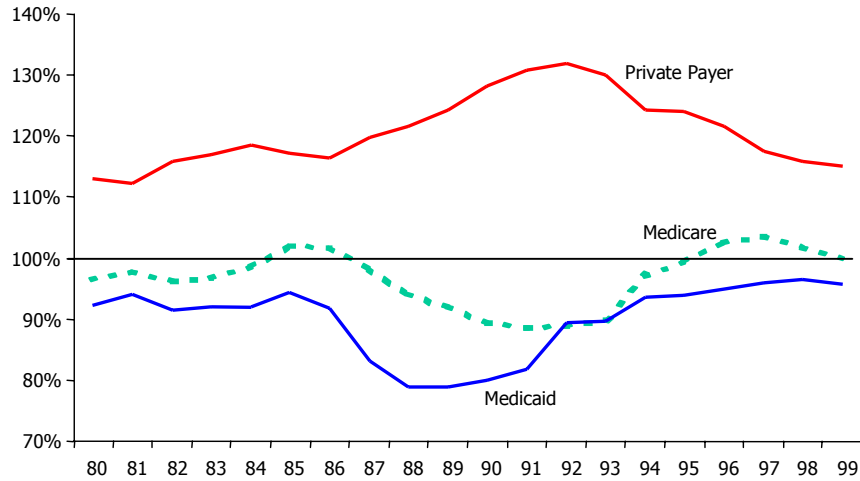
Source: The Lewin Group Analysis of the American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

⁽¹⁾ Non-patient represents costs for cafeterias, parking lots, gift shops and other non-patient care operating services and are not attributed to any one payer

⁽²⁾ Uncompensated care represents bad debt expense and charity care

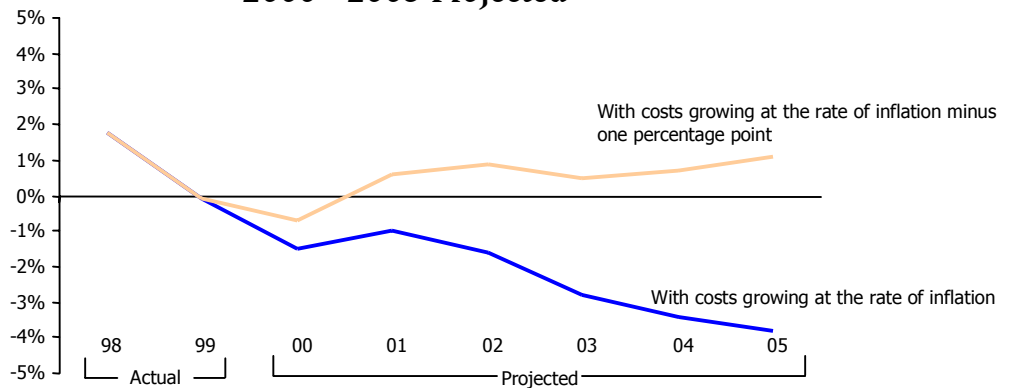


Chart 4.8:
Aggregate Hospital Payment-to-cost Ratios
for Private Payers, Medicare and Medicaid
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999, for community hospitals

Chart 4.9:
Hospital Total Medicare Margins
Actual and Projected Post-BIPA⁽¹⁾
1998 - 1999 Actual
2000 - 2005 Projected



Source: The Lewin Group analysis

⁽¹⁾ BIPA: Medicare Benefits Improvement and Protection Act of 2000

Note: The rate of inflation for hospitals is equal to the market basket for hospital inpatient PPS services. Market basket rates used in this analysis were between 2.4 and 3.5 percent.



**Chart 4.10:
Aggregate Payment-to-cost Ratios⁽¹⁾
by Payer by State
1999**

	Medicare	Medicaid	Private Payers
Nation	0.999	0.955	1.150
Alabama*	1.075	0.974	1.128
Alaska*	0.906	0.833	1.432
Arizona*	1.039	0.806	1.129
Arkansas	1.017	0.850	1.376
California*	1.006	0.911	1.187
Colorado	0.941	1.043	1.173
Connecticut	0.950	0.754	1.163
Delaware	0.898	1.067	1.210
District of Columbia*	1.026	1.092	1.141
Florida*	1.017	0.842	1.298
Georgia	1.003	0.913	1.341
Hawaii*	0.862	0.791	1.226
Idaho*	0.911	0.943	1.465
Illinois	0.917	0.748	1.206
Indiana	0.912	0.952	1.299
Iowa	0.851	0.895	1.307
Kansas	0.928	0.642	1.282
Kentucky	0.963	0.835	1.269
Louisiana*	0.958	0.887	1.840
Maine	0.876	0.942	1.392
Maryland	1.094	1.071	1.087
Massachusetts	0.974	0.776	0.997
Michigan	0.975	0.951	1.075
Minnesota	0.893	0.895	1.163
Mississippi*	0.967	1.080	1.485
Missouri	0.944	0.890	1.144
Montana	0.906	0.850	1.330
Nebraska	0.877	0.962	1.311
Nevada*	1.000	0.956	1.336
New Hampshire	0.922	0.737	1.254
New Jersey*	0.920	0.907	1.153
New Mexico*	1.029	1.130	1.135
New York*	1.010	1.054	0.952
North Carolina	1.006	0.935	1.254
North Dakota*	0.889	0.955	1.275
Ohio	0.967	0.925	1.154
Oklahoma	1.019	0.714	1.258
Oregon	0.971	0.879	1.152
Pennsylvania	1.002	0.799	1.043
Rhode Island	1.009	0.990	0.928
South Carolina	0.947	0.907	1.515
South Dakota	0.858	0.913	1.367
Tennessee*	0.968	0.713	1.243
Texas	0.986	1.044	1.261
Utah	0.995	1.078	1.223
Vermont	0.874	0.811	1.279
Virginia	1.005	1.011	1.337
Washington*	1.009	0.950	1.070
West Virginia	0.949	0.882	1.366
Wisconsin	0.892	0.776	1.254
Wyoming	0.919	0.863	1.426

Source: The Lewin Group analysis of the American Hospital Association Annual Survey data, 1999, for community hospitals

⁽¹⁾ 1.00 reflects payment at 100% of cost

* Less than 60% of hospitals reporting



**Chart 4.11:
Aggregate Payer Margins and Hospital Total Margins
by State
1999**

	Medicare	Medicaid	Private Payers	Total ⁽¹⁾
Nation	-0.1%	-4.7%	13.1%	4.6%
Alabama*	7.0%	-2.6%	11.4%	8.1%
Alaska*	-10.4%	-20.0%	30.2%	11.9%
Arizona*	3.7%	-24.0%	11.4%	2.7%
Arkansas	1.7%	-17.6%	27.3%	4.2%
California*	0.6%	-9.8%	15.8%	0.3%
Colorado	-6.2%	4.1%	14.8%	4.5%
Connecticut	-5.2%	-32.7%	14.0%	2.3%
Delaware	-11.3%	6.3%	17.4%	6.3%
District of Columbia*	2.6%	8.4%	12.3%	6.3%
Florida*	1.7%	-18.8%	22.9%	6.5%
Georgia	0.3%	-9.6%	25.4%	8.9%
Hawaii*	-16.0%	-26.4%	18.4%	1.3%
Idaho*	-9.8%	-6.1%	31.7%	11.6%
Illinois	-9.0%	-33.8%	17.1%	6.0%
Indiana	-9.6%	-5.0%	23.0%	8.2%
Iowa	-17.5%	-11.7%	23.5%	6.5%
Kansas	-7.8%	-55.6%	22.0%	6.8%
Kentucky	-3.9%	-19.7%	21.2%	4.4%
Louisiana*	-4.4%	-12.7%	45.7%	8.5%
Maine	-14.1%	-6.2%	28.2%	7.4%
Maryland	8.6%	6.6%	8.0%	3.7%
Massachusetts	-2.7%	-28.9%	-0.3%	0.5%
Michigan	-2.6%	-5.1%	7.0%	4.5%
Minnesota	-12.0%	-11.7%	14.0%	5.8%
Mississippi*	-3.4%	7.4%	32.7%	6.6%
Missouri	-6.0%	-12.3%	12.6%	3.0%
Montana	-10.3%	-17.6%	24.8%	6.4%
Nebraska	-14.1%	-3.9%	23.7%	8.7%
Nevada*	0.0%	-4.6%	25.2%	8.3%
New Hampshire	-8.5%	-35.7%	20.2%	9.2%
New Jersey*	-8.7%	-10.2%	13.3%	-0.4%
New Mexico*	2.8%	11.5%	11.9%	4.8%
New York*	1.0%	5.1%	-5.0%	-0.1%
North Carolina	0.6%	-6.9%	20.3%	7.3%
North Dakota*	-12.5%	-4.7%	21.6%	6.1%
Ohio	-3.4%	-8.1%	13.3%	4.2%
Oklahoma	1.8%	-40.1%	20.5%	5.7%
Oregon	-3.0%	-13.8%	13.2%	5.7%
Pennsylvania	0.2%	-25.1%	4.1%	2.4%
Rhode Island	0.9%	-1.1%	-7.7%	-1.7%
South Carolina	-5.6%	-10.3%	34.0%	5.6%
South Dakota	-16.5%	-9.6%	26.9%	9.0%
Tennessee*	-3.3%	-40.3%	19.6%	3.3%
Texas	-1.4%	4.2%	20.7%	6.6%
Utah	-0.5%	7.2%	18.2%	8.8%
Vermont	-14.4%	-23.3%	21.8%	2.5%
Virginia	0.5%	1.1%	25.2%	11.6%
Washington*	0.9%	-5.3%	6.6%	4.0%
West Virginia	-5.4%	-13.3%	26.8%	4.4%
Wisconsin	-12.1%	-28.9%	20.3%	6.1%
Wyoming	-8.8%	-15.9%	29.9%	10.6%

Source: The Lewin Group analysis of the American Hospital Association Annual Survey data, 1999, for community hospitals

⁽¹⁾ Hospital total margins include non-operating revenue

* Less than 60% of hospitals reporting



Chart 4.12:
Aggregate Cost by Payer
as a Percent of Total Expenses by State
1999

	Medicare	Medicaid	Other Government	Private Payers	Uncompensated Care	Non-patient Care ⁽¹⁾
Nation	38%	13%	1%	39%	6%	3%
Alabama*	41%	11%	1%	36%	9%	3%
Alaska*	25%	18%	8%	41%	6%	3%
Arizona*	32%	12%	1%	47%	6%	1%
Arkansas	46%	11%	0%	32%	10%	1%
California*	29%	22%	5%	34%	7%	2%
Colorado	30%	9%	3%	48%	7%	3%
Connecticut	43%	12%	0%	37%	4%	4%
Delaware	38%	10%	0%	38%	5%	8%
District of Columbia*	34%	9%	3%	40%	10%	3%
Florida*	40%	11%	3%	35%	9%	2%
Georgia	38%	13%	1%	38%	7%	2%
Hawaii*	44%	13%	1%	37%	3%	3%
Idaho*	41%	10%	1%	40%	4%	4%
Illinois	38%	12%	0%	43%	5%	3%
Indiana	40%	9%	0%	41%	6%	3%
Iowa	44%	7%	1%	41%	4%	3%
Kansas	44%	7%	1%	42%	4%	2%
Kentucky	40%	13%	1%	37%	6%	2%
Louisiana*	37%	15%	1%	28%	17%	2%
Maine	45%	12%	1%	36%	5%	2%
Maryland	42%	8%	0%	41%	6%	3%
Massachusetts	36%	9%	1%	40%	5%	8%
Michigan	38%	9%	1%	46%	4%	3%
Minnesota	33%	12%	1%	49%	2%	2%
Mississippi*	45%	13%	0%	30%	10%	2%
Missouri	42%	12%	0%	39%	5%	2%
Montana	43%	10%	3%	36%	4%	4%
Nebraska	42%	8%	0%	44%	2%	3%
Nevada*	33%	12%	6%	42%	7%	0%
New Hampshire	41%	6%	0%	45%	5%	2%
New Jersey*	42%	9%	1%	37%	8%	2%
New Mexico*	29%	19%	2%	40%	9%	2%
New York*	34%	23%	1%	30%	6%	5%
North Carolina	42%	12%	1%	34%	7%	3%
North Dakota*	45%	9%	2%	38%	2%	3%
Ohio	38%	10%	1%	42%	6%	3%
Oklahoma	42%	9%	1%	37%	8%	3%
Oregon	37%	12%	1%	44%	3%	3%
Pennsylvania	43%	9%	0%	43%	3%	2%
Rhode Island	39%	11%	1%	41%	4%	3%
South Carolina	39%	18%	4%	29%	9%	2%
South Dakota	44%	9%	2%	39%	3%	4%
Tennessee*	40%	15%	1%	37%	5%	2%
Texas	36%	13%	2%	35%	11%	3%
Utah	28%	10%	2%	52%	5%	3%
Vermont	43%	12%	0%	39%	4%	1%
Virginia	38%	9%	2%	42%	7%	1%
Washington*	34%	15%	3%	42%	3%	3%
West Virginia	47%	14%	7%	26%	5%	2%
Wisconsin	41%	7%	1%	45%	3%	3%
Wyoming	40%	8%	4%	39%	6%	2%

Source: The Lewin Group analysis of the American Hospital Association Annual Survey data, 1999, for community hospitals

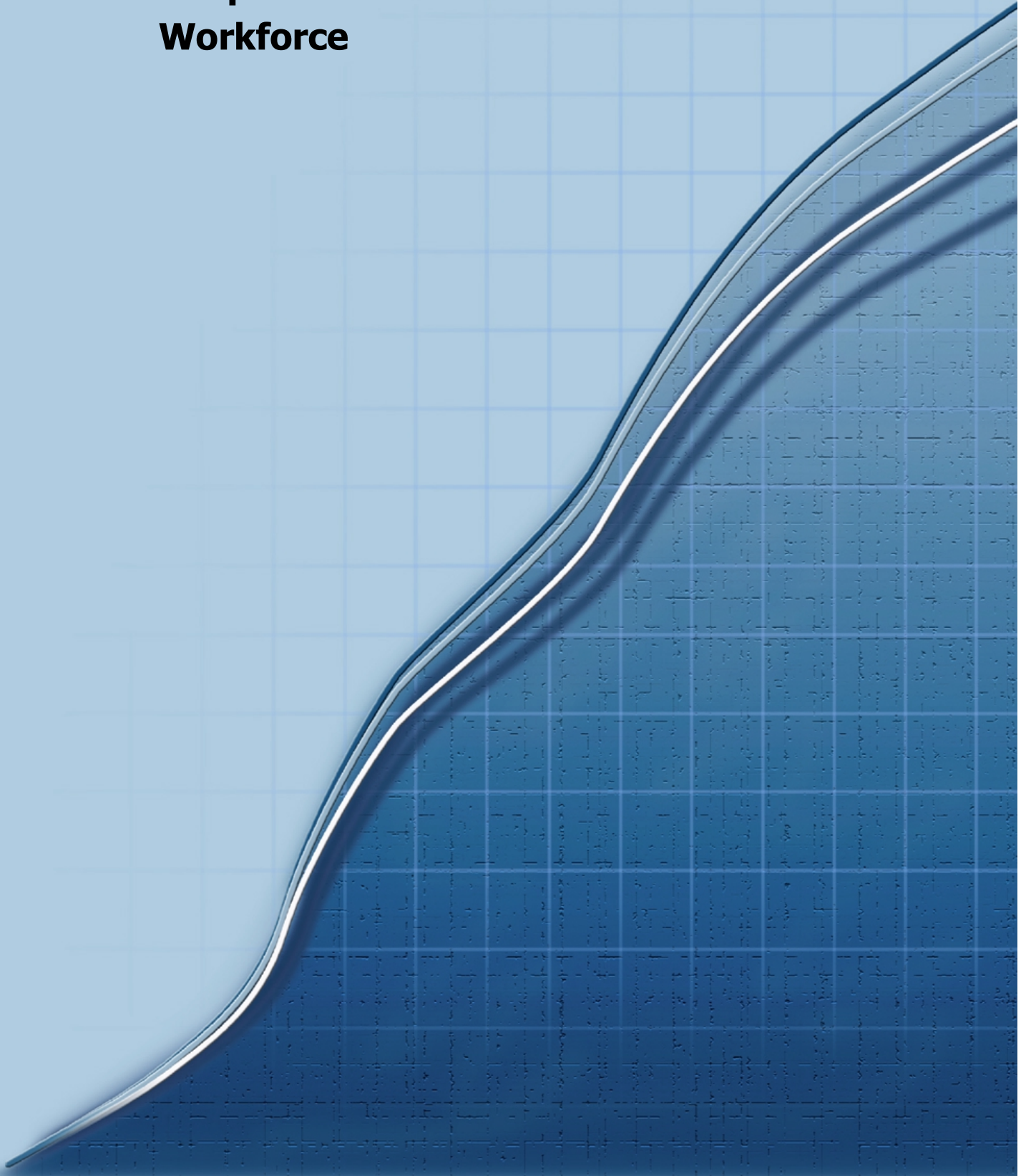
Note: Totals may not equal 100% due to rounding

Aggregate cost by payer as a percent of total expenses represents the portion of hospitals' costs that are attributed to each payer category

⁽¹⁾ Non-patient care costs represent hospitals' other operating expenses such as cafeterias, parking lots and gift shops

* Less than 60% of hospitals reporting

Chapter 5: Workforce



Chapter 5: Workforce

Physician Workforce

The number of physicians per thousand population continued to increase despite a general consensus that there is an oversupply of many specialty types. The number of physicians per thousand is particularly high in the Northeast and Mid-Atlantic and relatively low in the South and West. These numbers should decline since the number of residents in training has leveled off and the population continues to grow (Charts 5.1 - 5.3).

Hospital Workforce

After declining in the early to mid-1980s, the number of full time equivalent employees (FTEs) working in hospitals has increased since 1985, although more slowly since 1993. However, FTEs per adjusted admission⁽¹⁾ has been declining since 1992. The decline was greater in 1999 than in 1998, probably a factor of increasing admissions and a shortage of hospital workers. The number of registered nurse (RN) FTEs has been increasing slowly, with the number of RN FTEs per adjusted admission staying relatively constant. RN FTEs as a percent of total hospital FTEs has remained steady at around 24 percent between 1986 and 1999 (Charts 5.4 - 5.7).

Current and Long-term Workforce Shortage

The combined pressures of an aging population, increased professional opportunities for women, financial constraints, increased demand and other stresses have created critical shortages of health care professionals. Job types particularly affected include nurses, pharmacists and medical technologists.

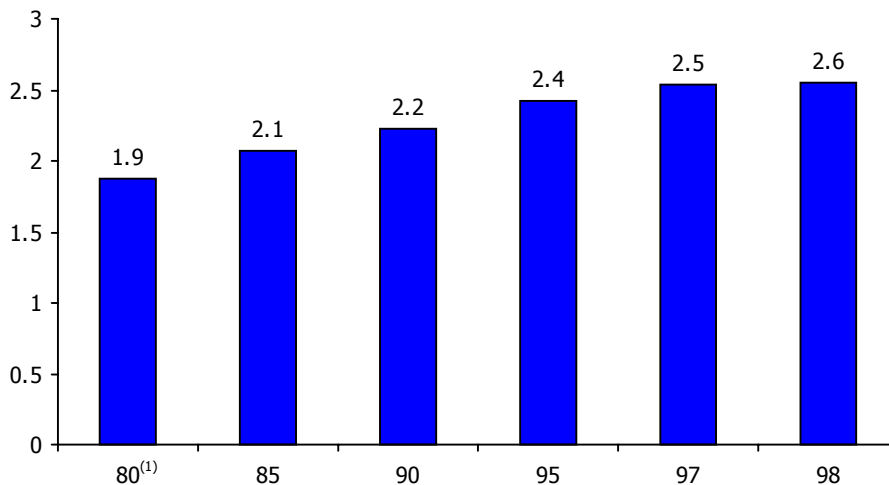
(1) An aggregate measure of workload reflecting the number of inpatient admissions, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient admission in terms of level of effort.



Results from an AHA Spring 2001 hospital survey found that hospitals currently have up to 168,000 open positions, and 126,000 of those are for registered nurses. In hospitals across the country, the survey found that a large share of positions remain vacant. The vacancy rate is 21 percent among pharmacists, 18 percent among radiological technologists, 12 percent among laboratory technologists and 11 percent among registered nurses. The AHA workforce survey also shows the workforce shortage is getting worse and is having an adverse impact on hospital operations and patient care (Charts 5.9 - 5.12).

Today's shortage is just the beginning of a long-term shortage that is expected to worsen over the next 20 years. The nursing workforce is aging as fewer people are enrolling in RN education programs. Based on current projections of increasing demand for health care, a shortage of 434,000 registered nurses is expected by 2020 (Charts 5.13 - 5.15).

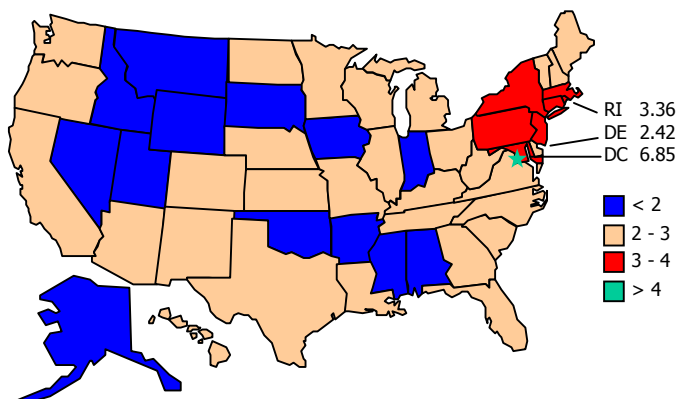
Chart 5.1:
Total Number of Active Physicians
per 1,000 Persons
1980 - 1998



Source: Health United States, 1982, 1996-97, 1999, 2000

⁽¹⁾ 1980 does not include doctors of osteopathy

Chart 5.2:
Total Number of Active Physicians
per 1,000 Persons by State
1998

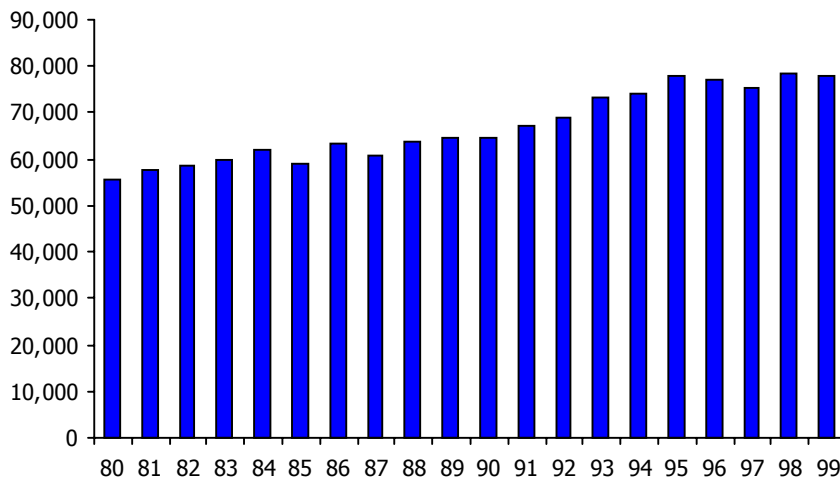


Source: Health United States, 2000

Includes active non-federal doctors of medicine and active doctors of osteopathy

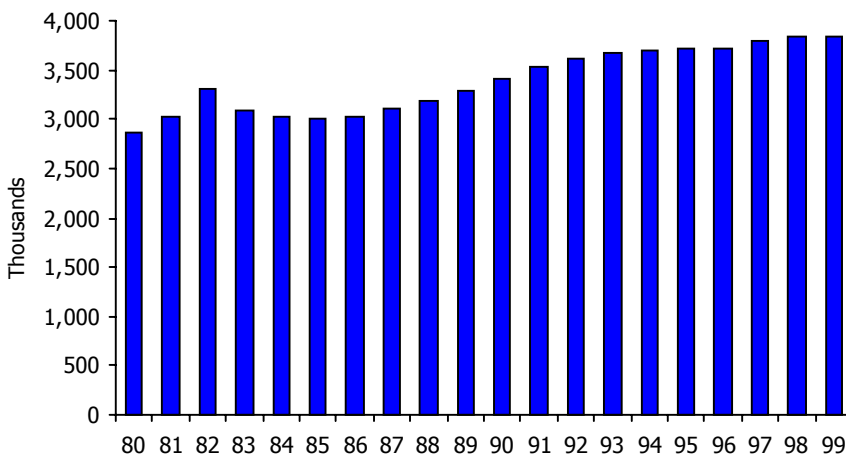


Chart 5.3:
Medical and Dental Residents in Training
in Community Hospitals
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

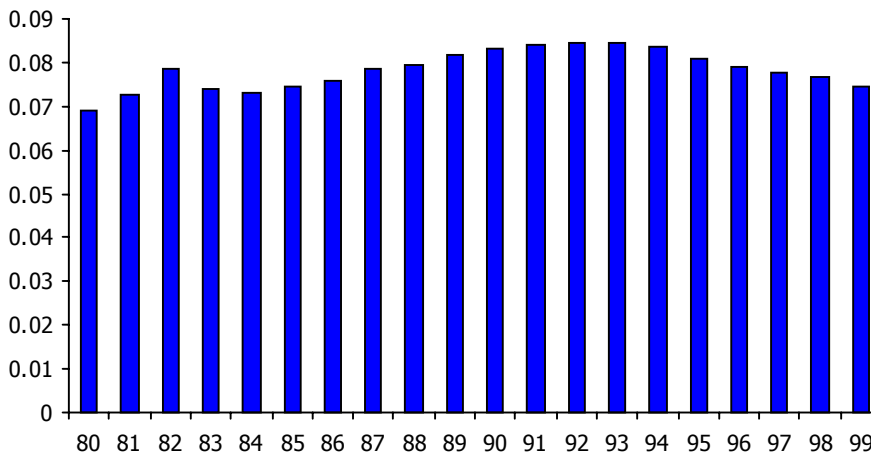
Chart 5.4:
Total Full Time Equivalent Employees
Working in Hospitals
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

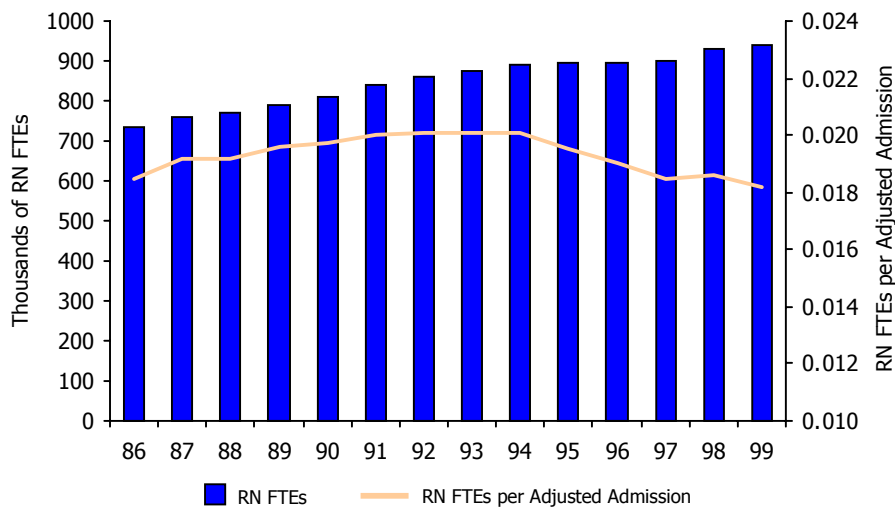


Chart 5.5:
Full Time Equivalent Employees
per Adjusted Admission
1980 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980 - 1999 for community hospitals

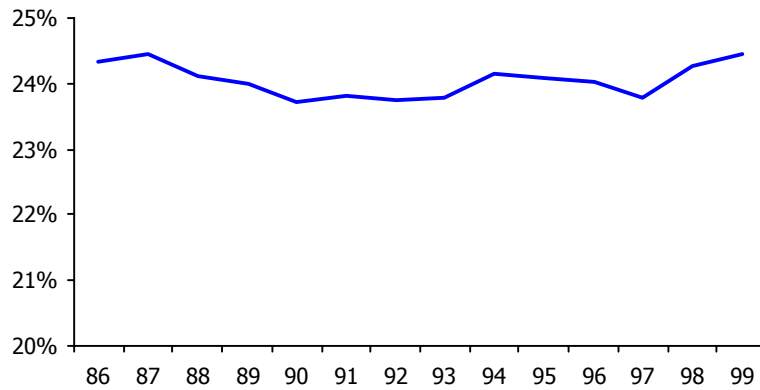
Chart 5.6:
Number of RN Full Time Equivalent Employees
and RN FTEs per Adjusted Admission
1986 - 1999



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1986 - 1999 for community hospitals

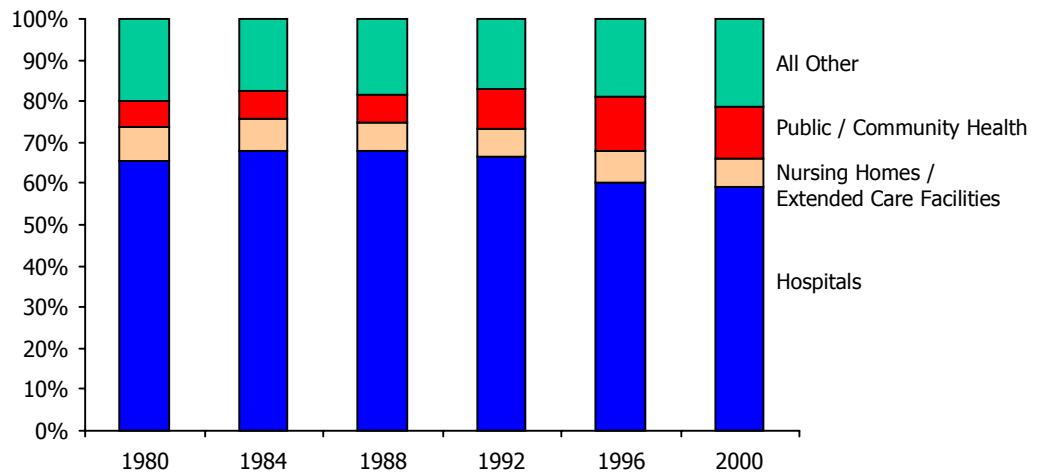


**Chart 5.7:
RN Full Time Equivalents
as a Percent of Total Hospital Full Time Equivalents
1986 - 1999**



Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1986 - 1999 for community hospitals

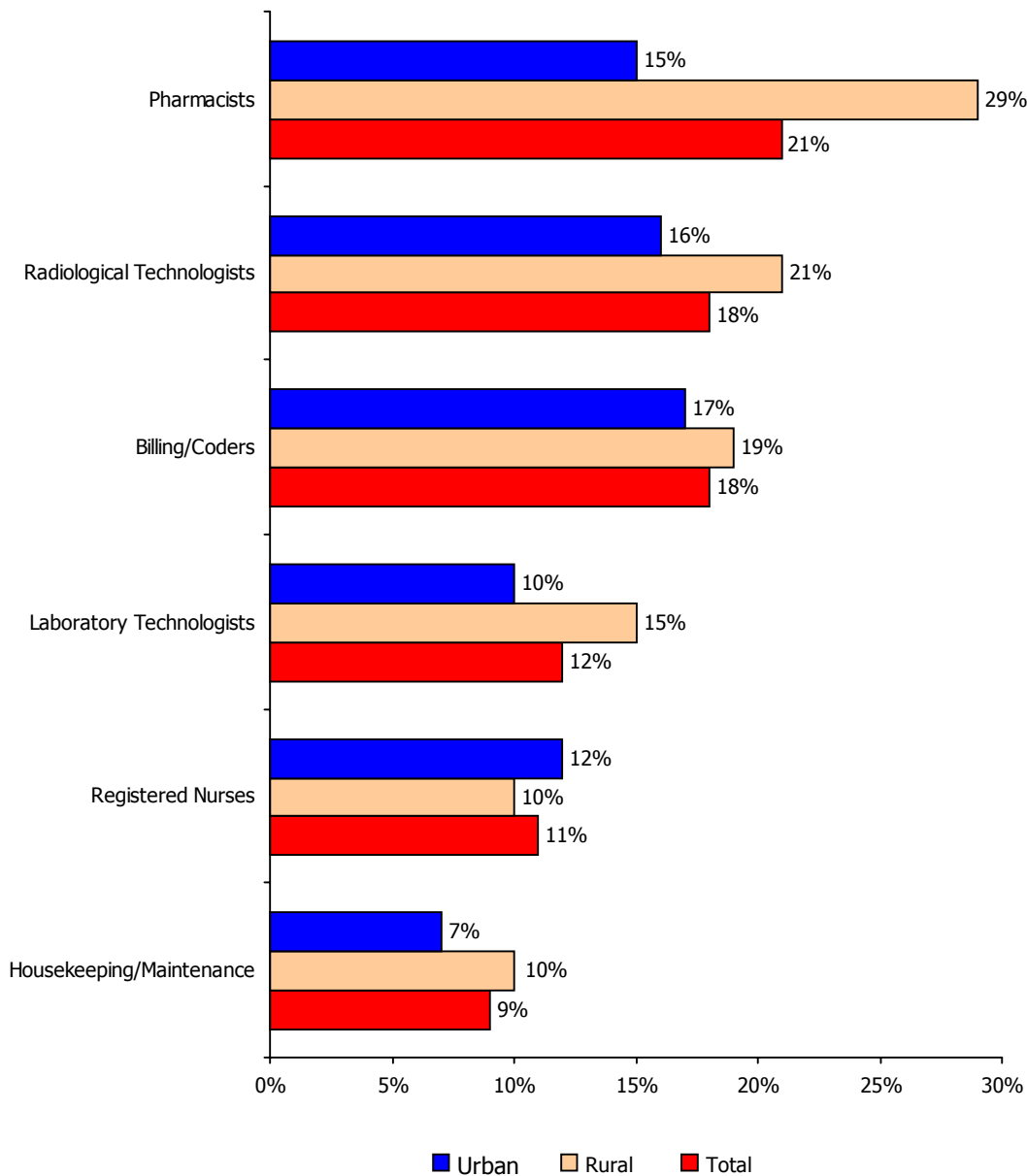
**Chart 5.8:
RN Employment by Type of Provider
1980 - 2000**



Source: Findings from the National Sample Survey of Registered Nurses, 1980-2000, Bureau of Health Professions, Division of Nursing



**Chart 5.9:
Vacancy Rates⁽¹⁾ for Selected Hospital Personnel
Urban, Rural, and Total
Spring 2001**

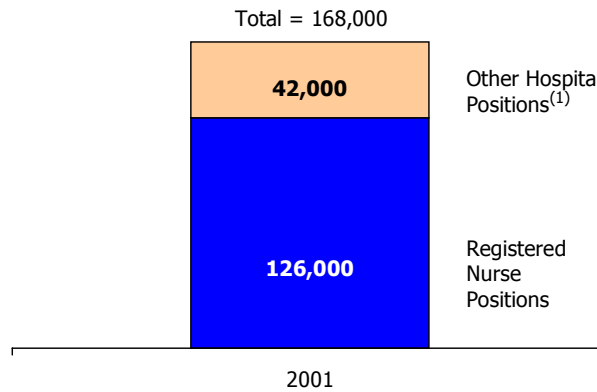


Source: AHA Workforce Survey, Spring 2001

⁽¹⁾ Percent of budgeted positions that are unfilled



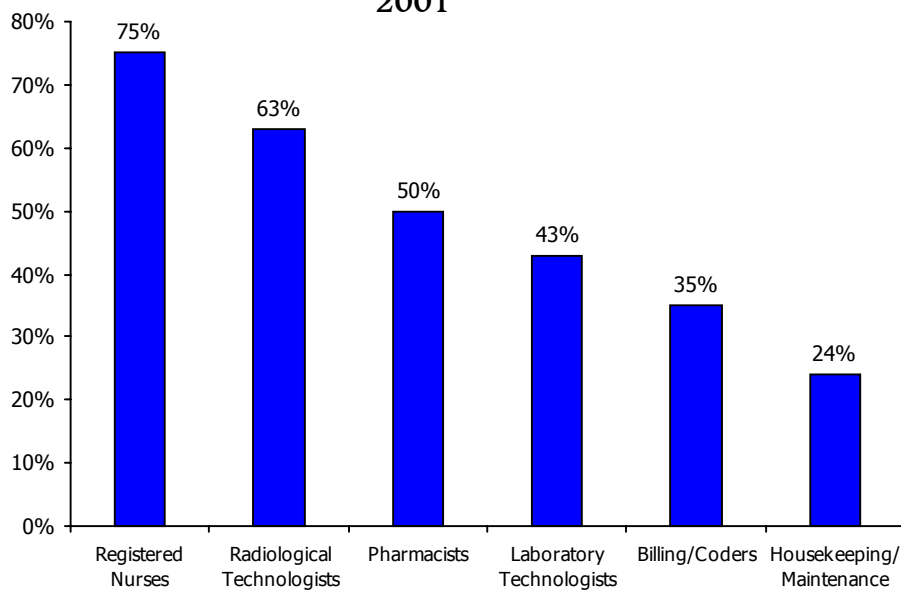
**Chart 5.10:
Estimated Number of Unfilled Hospital Positions
Spring 2001**



Source: AHA Special Workforce Survey, Spring 2001

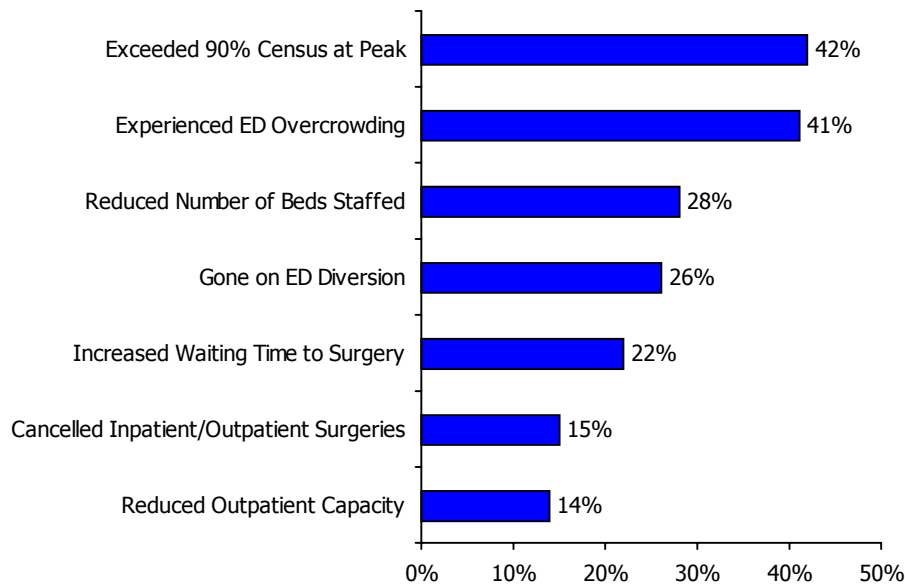
⁽¹⁾ Other hospital positions included in survey: pharmacists, radiological technologists, laboratory technologists, billing/coders, and housekeeping/maintenance.

**Chart 5.11:
Hospitals Reporting More Difficulty Recruiting than
Last Year for Selected Types of Hospital Workers
2001**



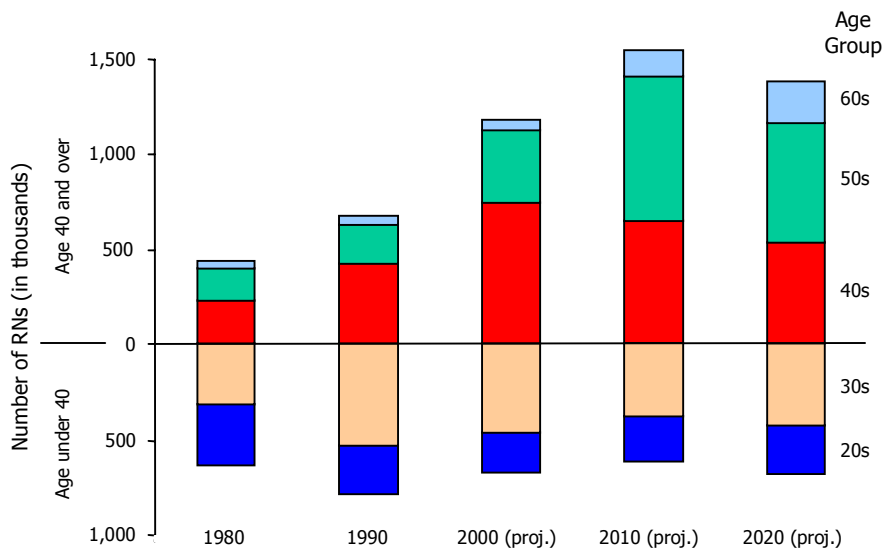
Source: AHA Special Workforce Survey, Spring 2001

Chart 5.12:
Percent of Hospitals Reporting Various Types of
Workforce Shortage Impacts
2001



Source: AHA Special Workforce Survey, Spring 2001

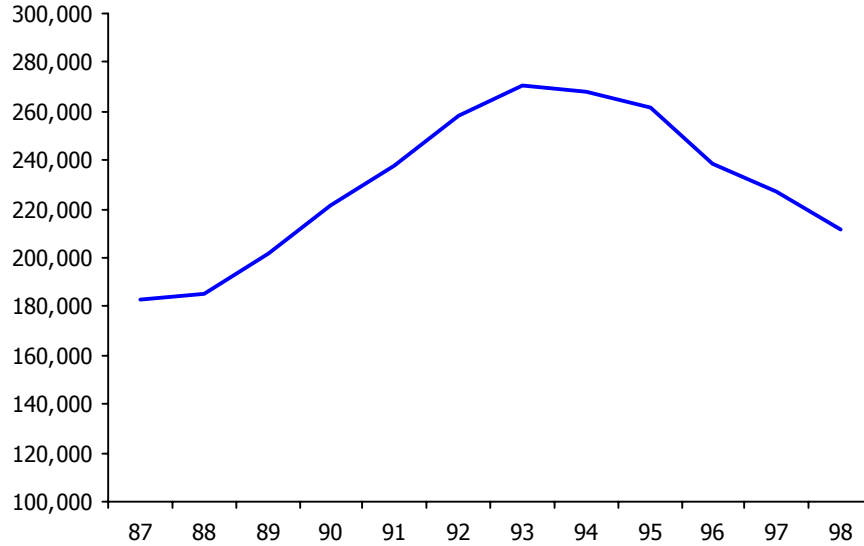
Chart 5.13:
Distribution of RN Workforce by Age Group
1980 - 2020 (Projected)



Source: Buerhaus, P.I. et al. Implications of an Aging Registered Nurse Workforce. JAMA: 2000: 283: 2948-2954

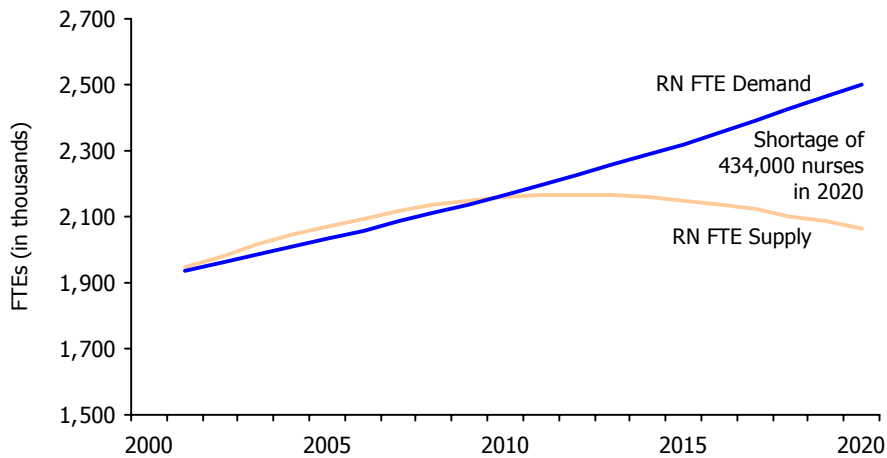


**Chart 5.14:
Annual Enrollment in US RN Education Programs
1987 - 1998**



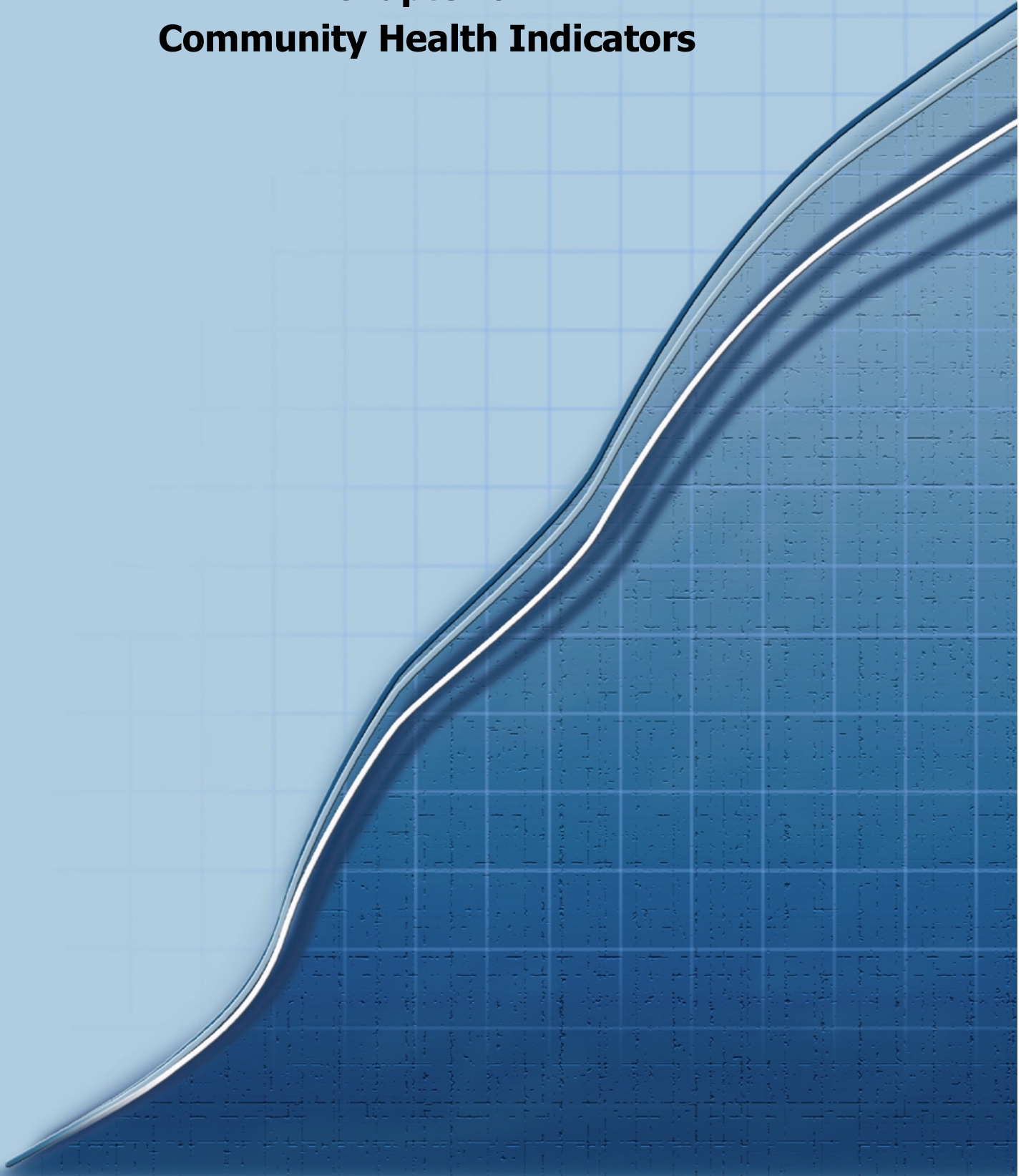
Source: National League for Nursing; 1997 and 1998 data are unpublished and unofficial

**Chart 5.15:
Forecast of Total RN FTEs vs. Requirements
Estimated by the Federal Government
2001 - 2020**



Source: Buerhaus, P.I. et al. Implications of an Aging Registered Nurse Workforce. JAMA: 2000: 283: 2948-2954

Chapter 6: Community Health Indicators



Chapter 6: Community Health Indicators

Population

While the population of the United States is expected to grow at a relatively constant rate into the early part of this century, the composition of the population by age is expected to change substantially. In 1980, there were roughly nine people younger than 65 for every person over 65. By 2050, this ratio will drop to four to one. Projected demographic shifts have tremendous implications for programs like Medicare and Social Security where taxes on current workers support the benefits of retirees. People 85 and older are projected to grow to five percent of the population from one percent in 1980. This shift results as people live longer and have fewer children (Chart 6.1).

In addition to aging, the population of the United States is expected to continue to become more diverse. By 2100, non-Hispanic whites will make up only 40.3 percent of the population compared to 71.4 percent in 2000 (Chart 6.2).

Access

The increasing diversity of the population raises concerns about access and health status as significant disparities continue to exist among populations in access to health care. More than a quarter of Hispanic adults report having no usual source of care (Chart 6.3). Among the uninsured, nearly half report having no usual source of care (Chart 6.4). While the problem is less severe among children, it is still significant (Charts 6.5 - 6.6).

Disparities in access lead to lower rates of preventive care such as immunizations and mammography (Charts 6.7 - 6.8).

Mortality

Mortality rates differ substantially by race. The mortality rate for diseases of the heart for blacks is 50 percent higher than for whites. Mortality rates for cerebrovascular diseases for blacks are nearly 80 percent higher and for diabetes are 140 percent higher. Whites have higher mortality rates for chronic obstructive pulmonary disease and suicide (Chart 6.9).



Although blacks and whites have seen similar improvements in the infant mortality rate over the last ten years, the infant mortality rate for blacks is still substantially higher than for whites (Chart 6.11).

Disease

The incidence rate for cancer is higher for blacks than whites. Blacks have a higher incidence of cancer of the digestive system, prostate, respiratory system, and cervix but a lower incidence of other cancers (Chart 6.12). After peaking in 1993, the number of Acquired Immunodeficiency Syndrome (AIDS) cases has been dropping at a rapid rate because of new drugs that delay HIV infections from developing into AIDS. In 1999, even though Non-Hispanic blacks made up only 12.1 percent of the population, they represented 47.2 percent of AIDS cases (Chart 6.13).

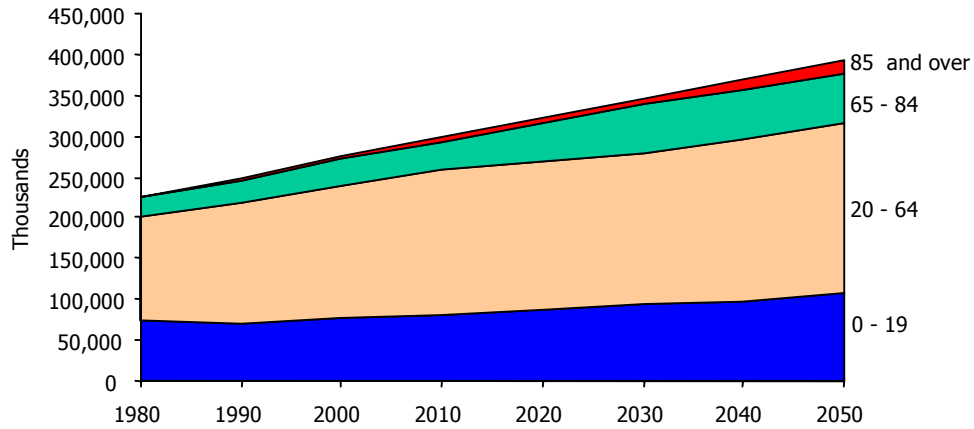
The percentage of the population with diabetes is increasing at an alarming rate. It is especially high among blacks. If not properly managed, diabetes can lead to severe health problems including kidney failure, blindness, and cardiovascular disease. Asthma is also a growing problem, especially among blacks (Charts 6.14 - 6.15).

Risk Factors

The percentage of persons who smoke has remained relatively flat overall despite public health efforts, but smoking rates went down more for blacks than whites between 1995 and 1998. Whites are much more likely to report heavy alcohol use than blacks or Hispanics. Whites and blacks are equally likely to report the use of marijuana, while Hispanics are less likely. A greater percentage of Hispanics report cocaine use, while blacks are the least likely to report cocaine use. Overall reported cocaine use has increased since 1994 (Charts 6.16 - 6.20).

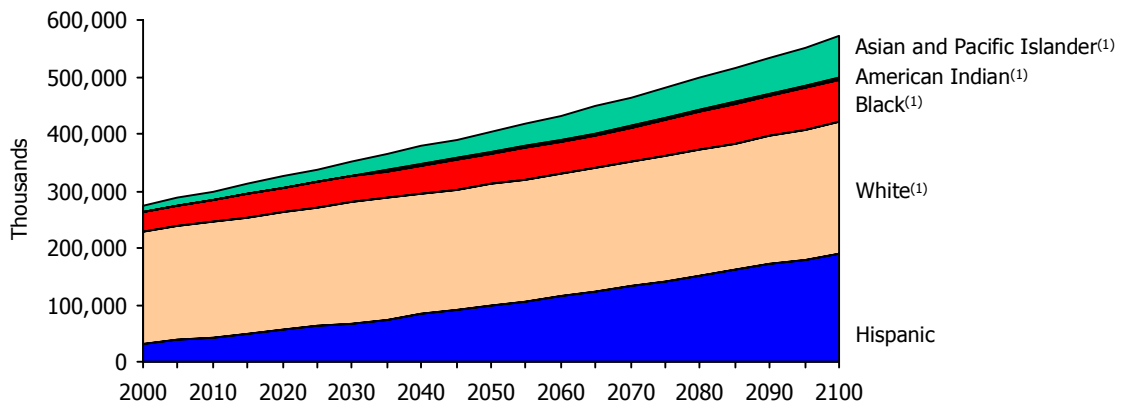


Chart 6.1:
US Population Trends and Projections by Age
 1980 - 2050



Source: US Census Bureau

Chart 6.2:
US Population Trends and Projections by Race and Hispanic Origin
 2000 - 2100

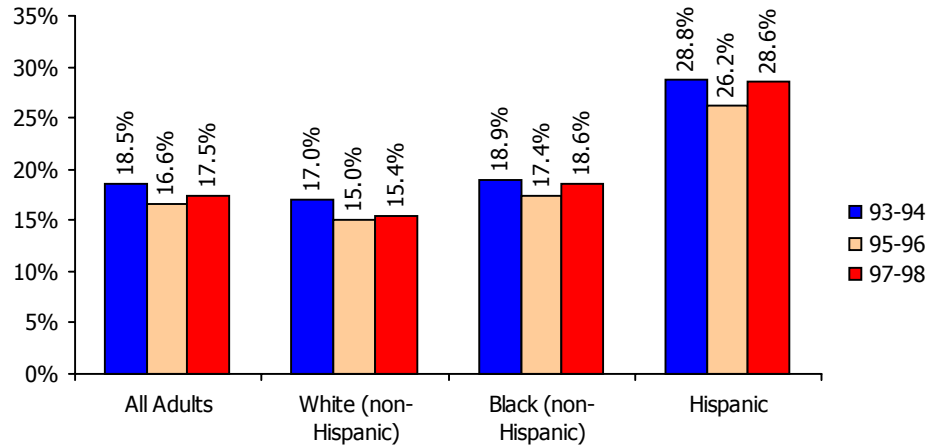


Source: US Census Bureau

(¹) Non-Hispanic

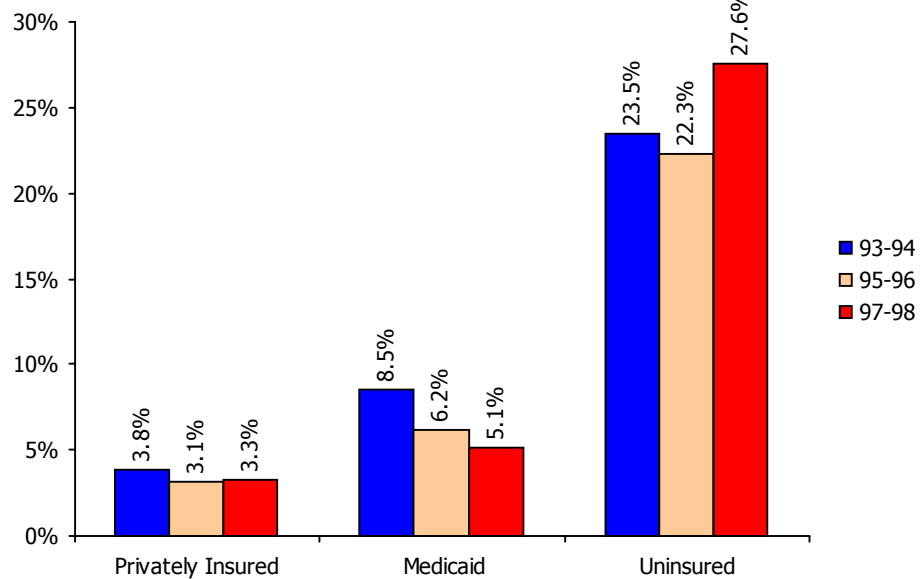


Chart 6.3:
Percent of Adults 18-64 Years of Age with
No Usual Source of Health Care by Race and Ethnicity
1993 - 1998



Source: Health United States, 2000

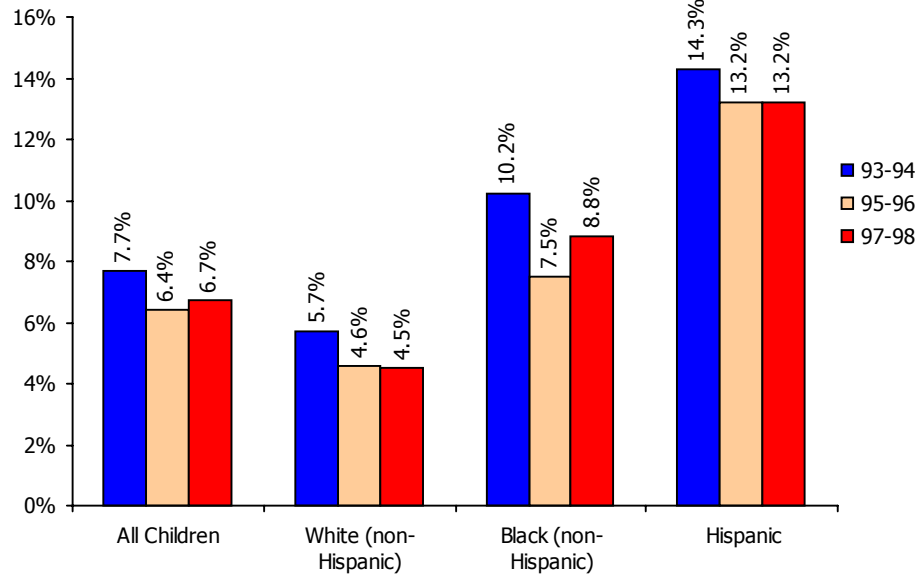
Chart 6.4:
Percent of Adults 18-64 Years of Age with
No Usual Source of Health Care by Insurance Status
1993 - 1998



Source: Health United States, 2000

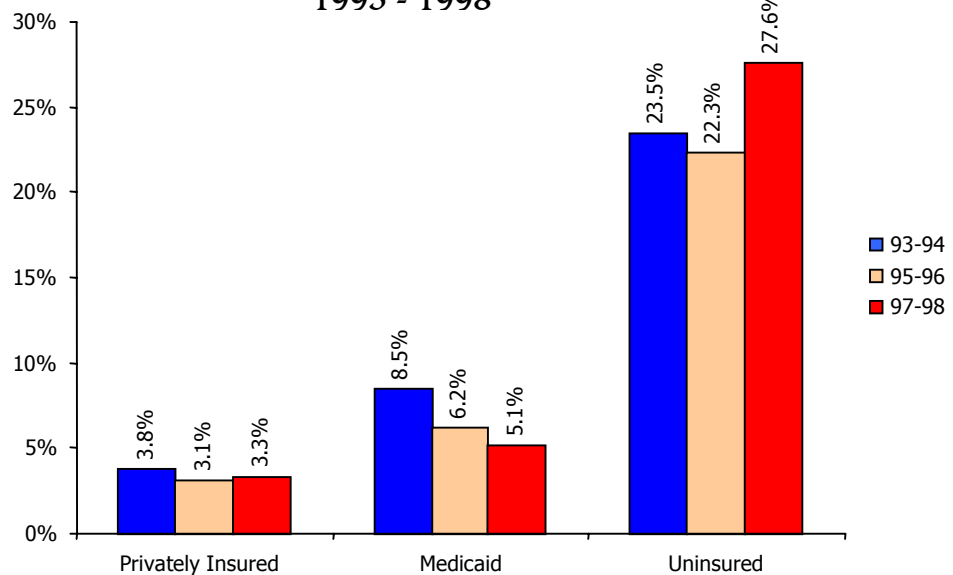


Chart 6.5:
Percent of Children Under 18 Years of Age with No Usual Source of Health Care by Race and Ethnicity 1993 - 1998



Source: Health United States, 2000

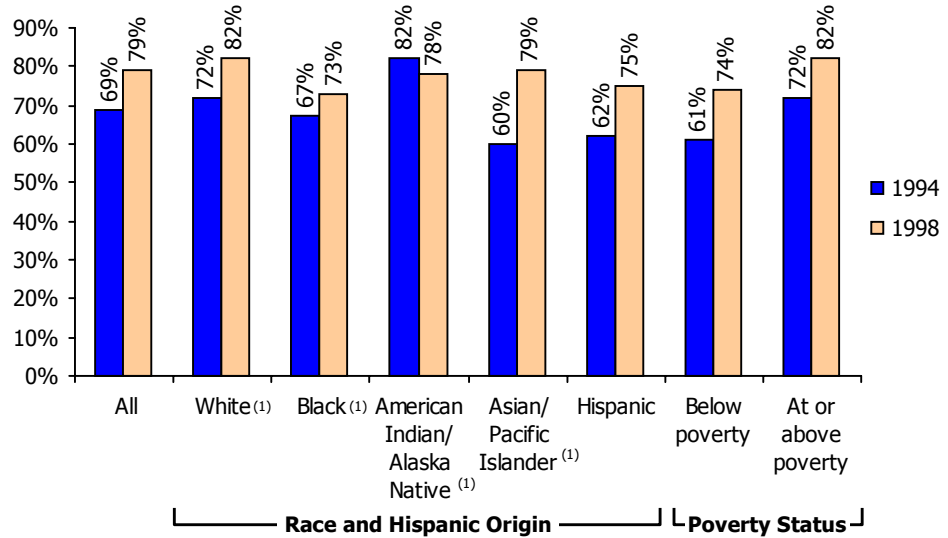
Chart 6.6:
Percent of Children Under 18 Years of Age with No Usual Source of Health Care by Insurance Status 1993 - 1998



Source: Health United States, 2000



Chart 6.7:
Vaccinations of Children, 19-35 Months of Age (Combined Series)
by Race and Ethnicity and Poverty Status
1994 and 1998

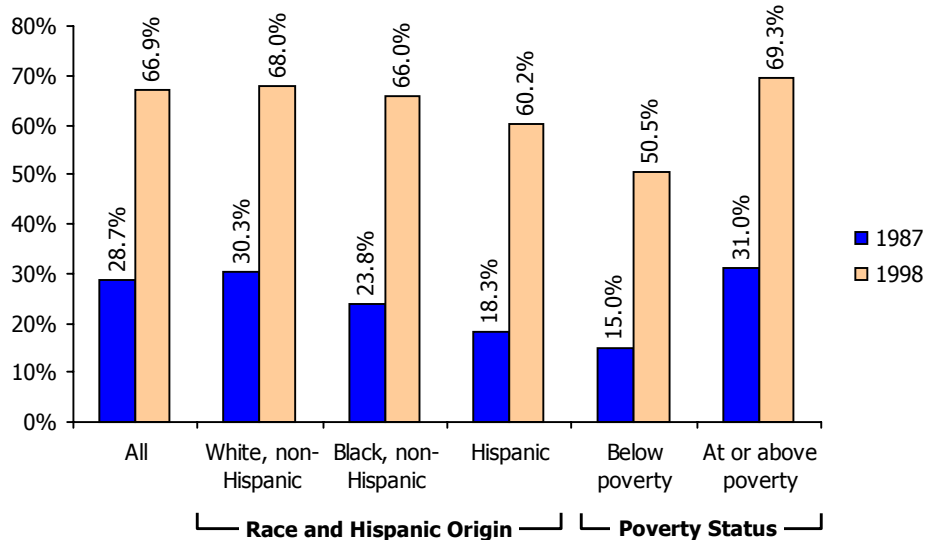


Source: Health United States, 2000

⁽¹⁾ Non-Hispanic

Note: The 4:3:1:3 combined series consists of 4 doses of diphtheria-tetanus-pertussis (DTP) vaccine, 3 doses of polio vaccine, 1 dose of a measles-containing vaccine, and 3 doses of Haemophilus influenzae type b (Hib) vaccine.

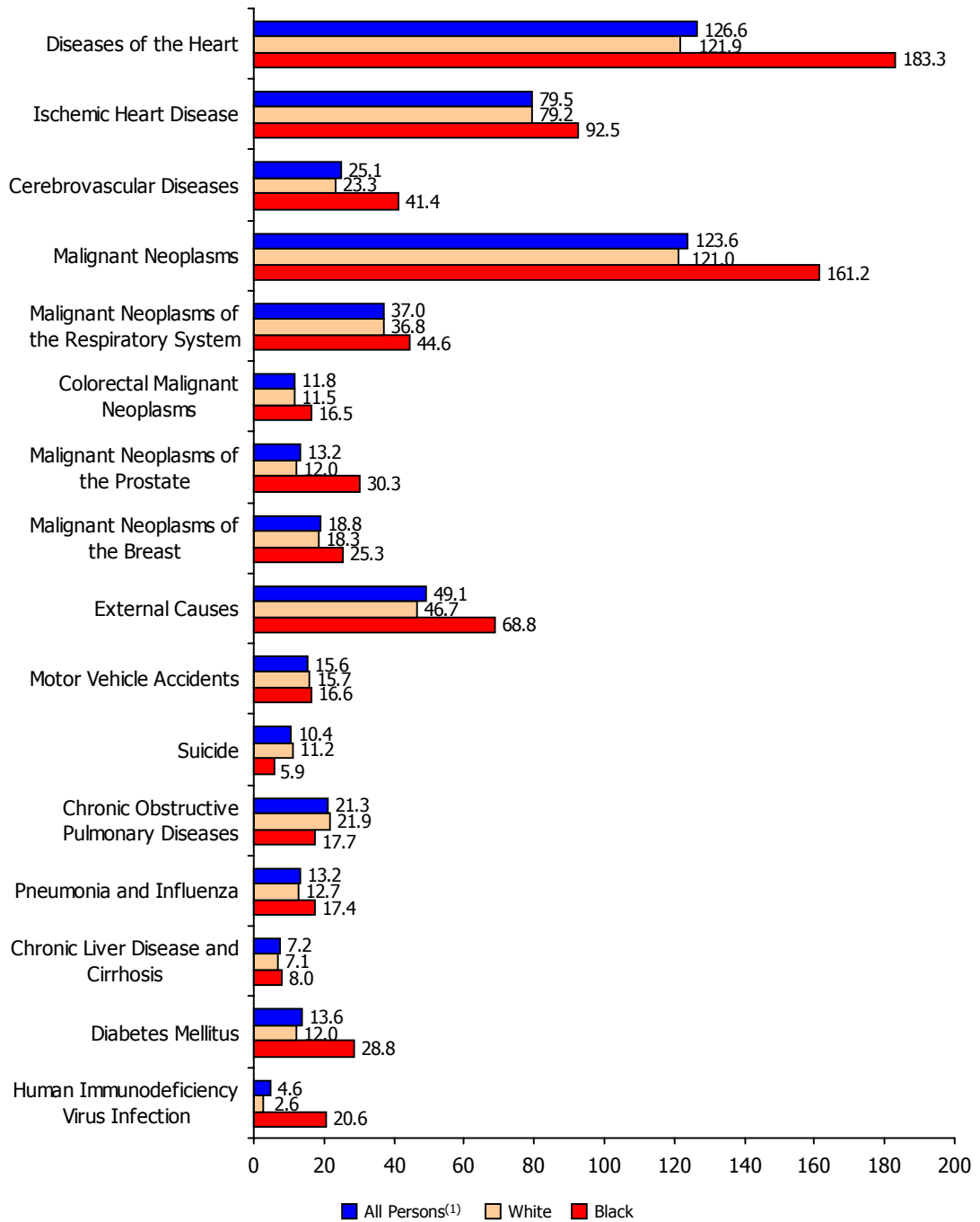
Chart 6.8:
Use of Mammography for Women 40 Years of Age and Over
by Race and Ethnicity and Poverty Status
1987 and 1998



Source: Health United States, 2000



Chart 6.9:
Age-adjusted Death Rates per 100,000 Persons
for Selected Causes of Death by Race
1998

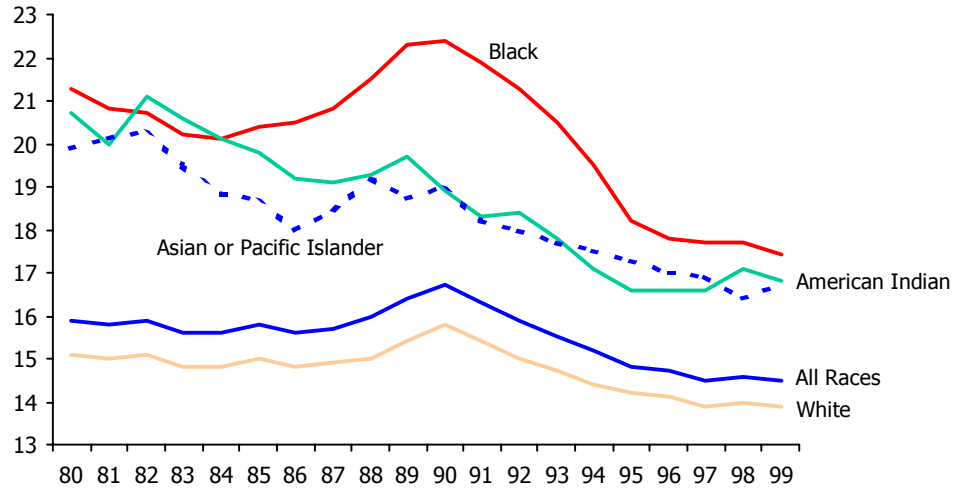


Source: Health United States, 2000

⁽¹⁾ Number represents death rates for White, Black, American Indian/Alaska Native, and Asian/Pacific Islander populations.

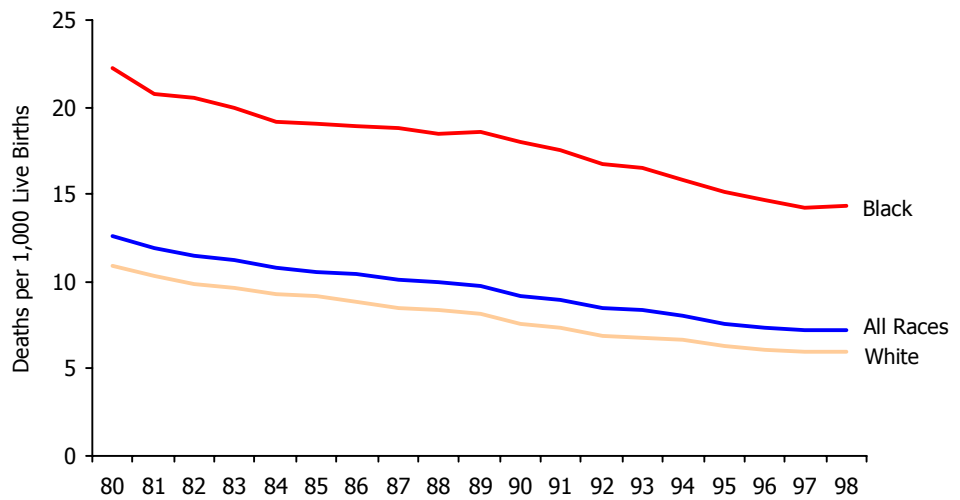


Chart 6.10:
Live Births per 1,000 Persons by Race
 1980 - 1999



Source: National Center for Health Statistics, Centers for Disease Control and Prevention; excludes births to nonresidents of the US

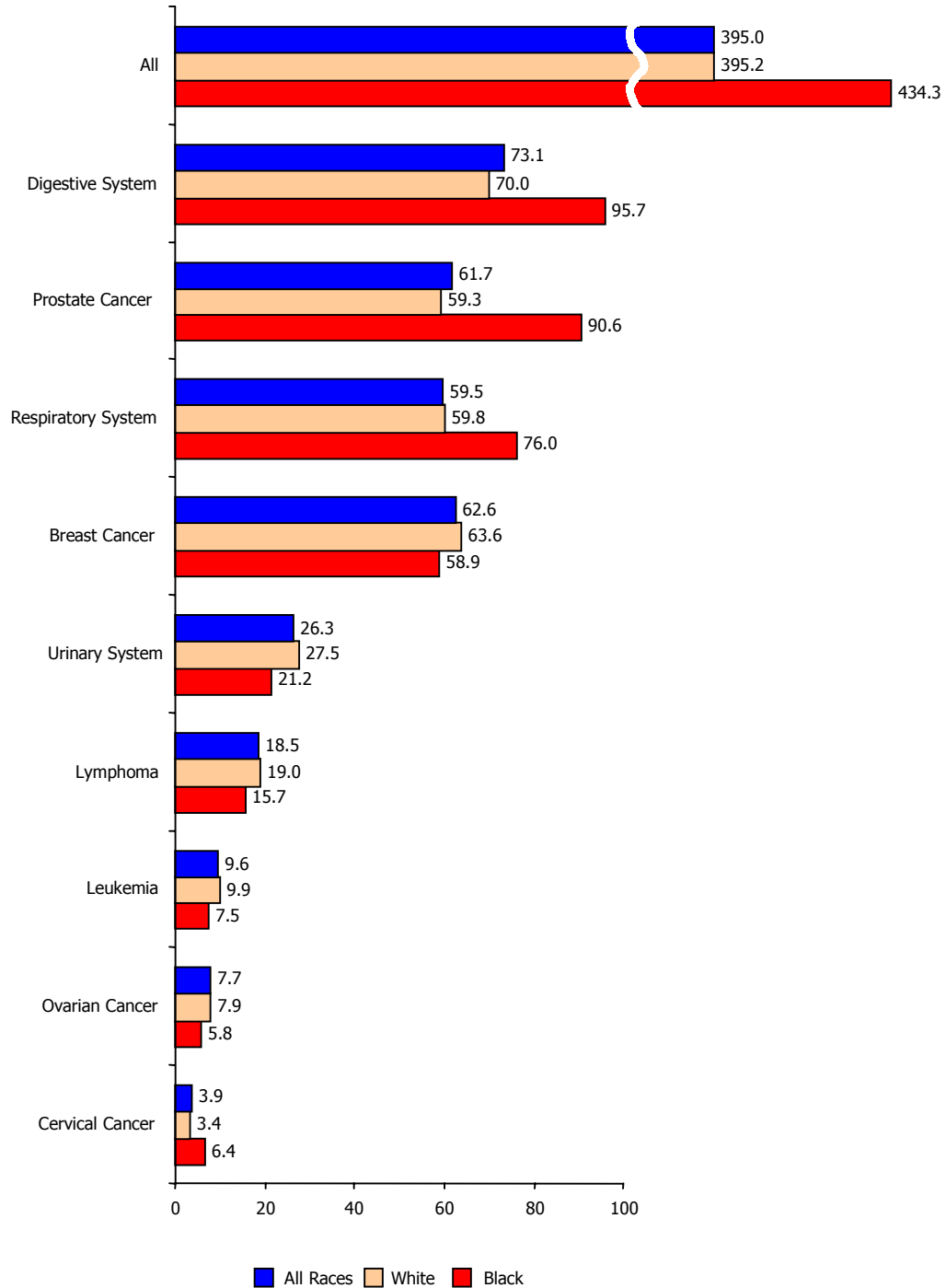
Chart 6.11:
Infant Mortality Rate by Race of Mother
 1980 - 1998



Source: National Center for Health Statistics, Centers for Disease Control and Prevention



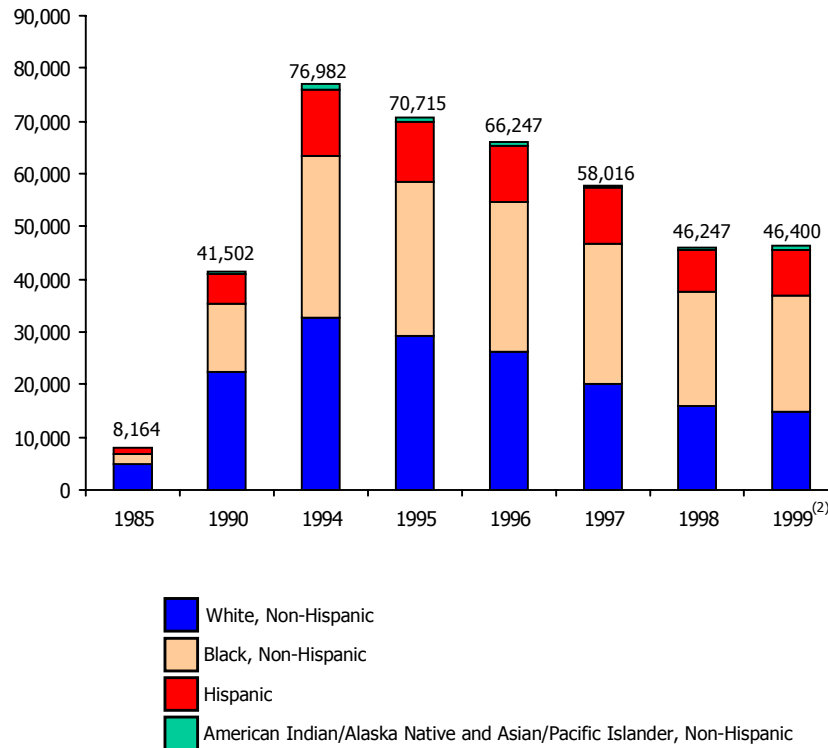
Chart 6.12:
Age-adjusted Incidence Rates per 100,000 Persons
for Selected Types of Cancer by Race
1997



Source: National Cancer Institute; excludes non-invasive cancers



Chart 6.13:
Acquired Immunodeficiency Syndrome (AIDS) Cases⁽¹⁾ by Race and Hispanic Origin 1985 - 1999



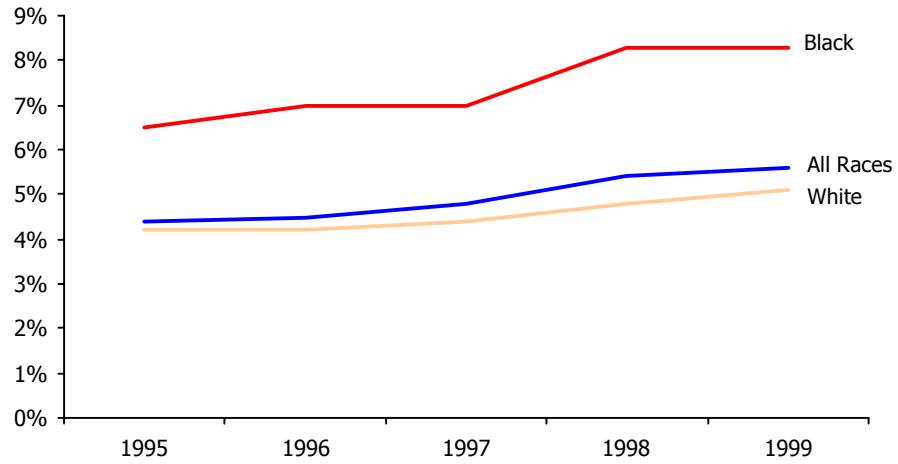
Source: Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention, Division of HIV/AIDS Prevention

⁽¹⁾ Number, by year of report

⁽²⁾ 1999 total also includes data for U.S. dependencies, possessions, and associated nations (1296 cases reported in Guam, U.S. Pacific Islands, Puerto Rico, and U.S. Virgin Islands)



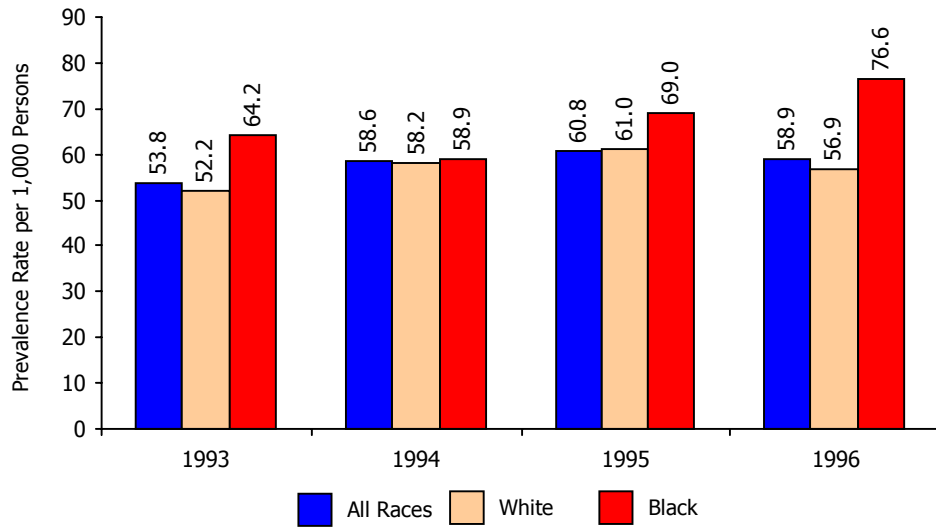
Chart 6.14:
Diabetes Prevalence by Race
1995 - 1999



Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control

Percent of survey respondents who report ever being told by a doctor that they have diabetes

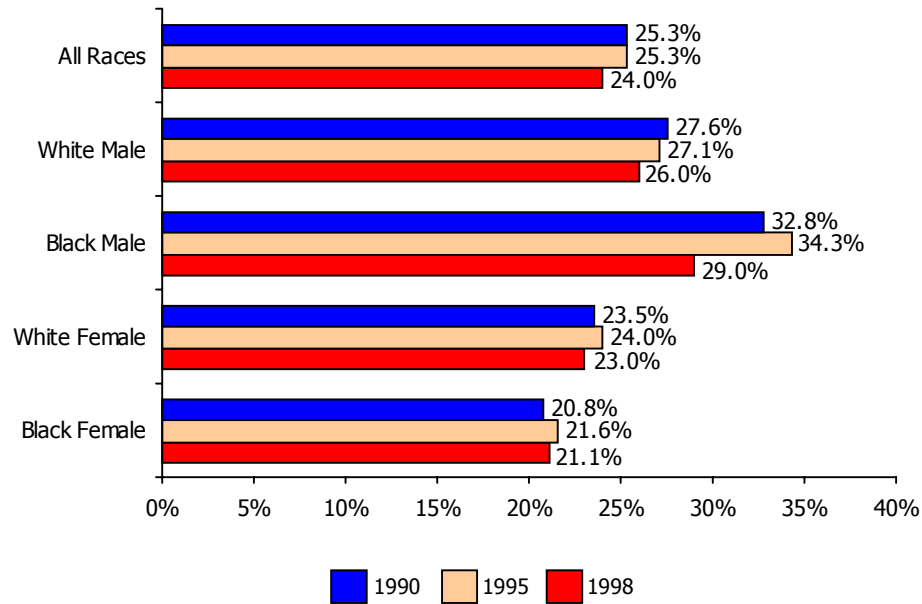
Chart 6.15:
Asthma Prevalence Rates for Persons Under 45 Years of Age by Race
1993 - 1996



Source: National Health Interview Survey, Vital and Health Statistics Series 10, No. 190, 193, 199, 200.



Chart 6.16:
Percent of Persons 18 Years of Age and Older Who
are Current Smokers by Race and Gender
1990, 1994, and 1998

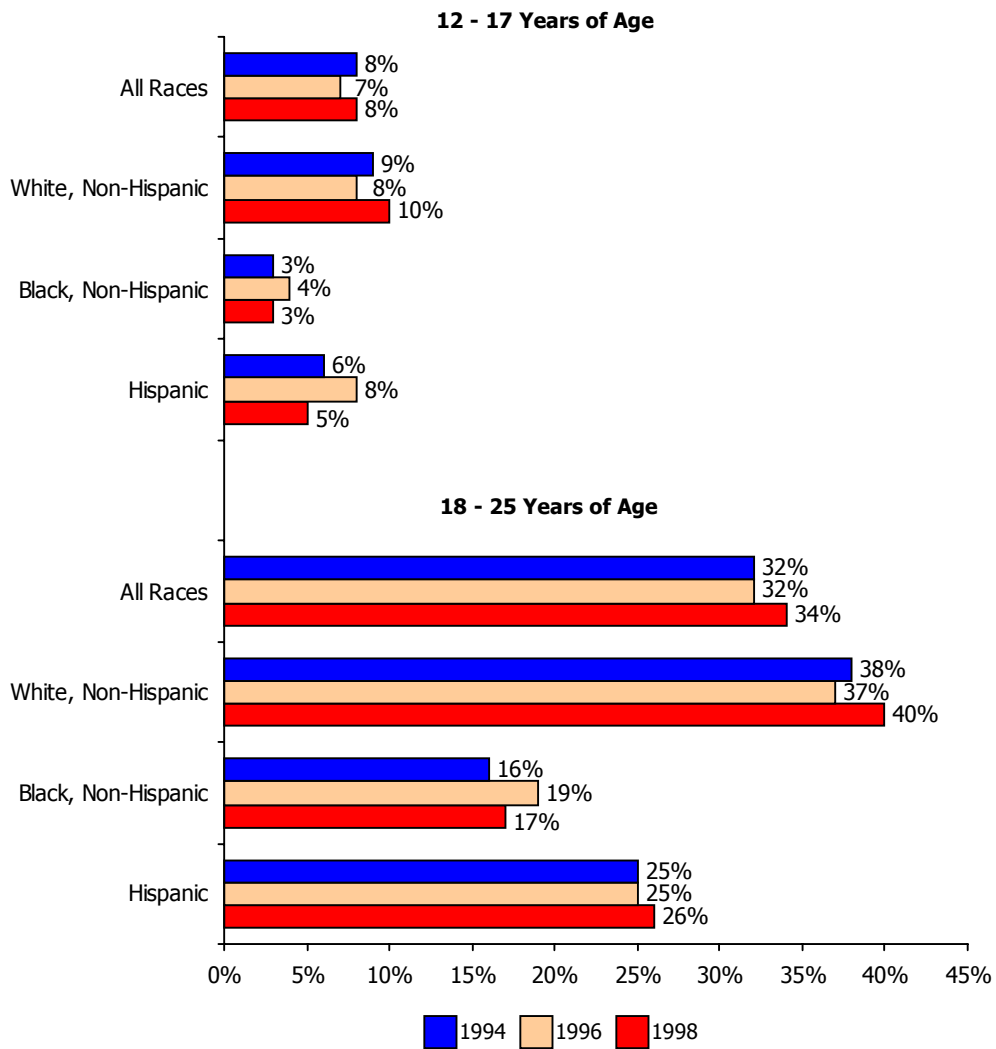


Source: Health United States, 2000

Note: Estimates are age-adjusted to the Year 2000 standard using the following age groups: 18-24 years, 25-34 years, 35-44 years, 45-64 years, and 65 years and over.



Chart 6.17:
Percent of Persons Reporting Heavy Alcohol Use⁽¹⁾
in the Past Month by Age Group, Race, and Hispanic Origin
1994, 1996, and 1998

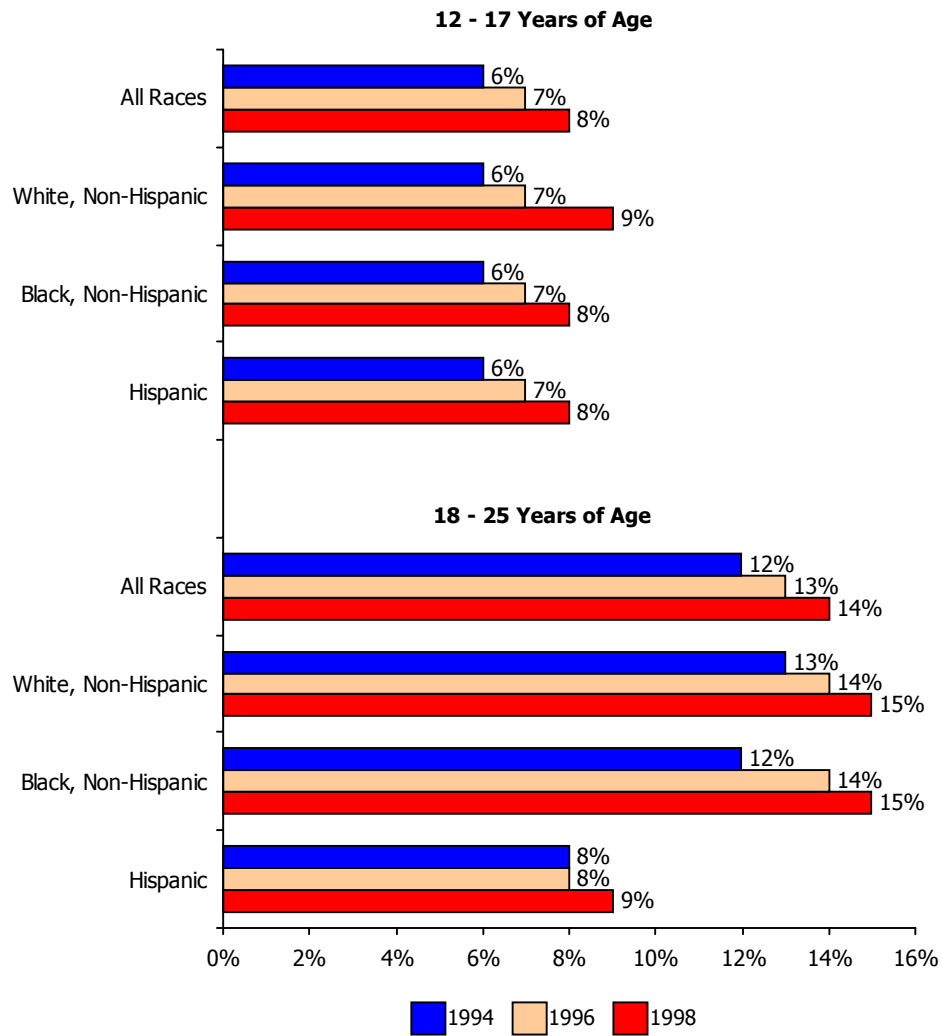


Source: Health United States, 2000

⁽¹⁾ Five or more drinks on the same occasion at least once in the past month



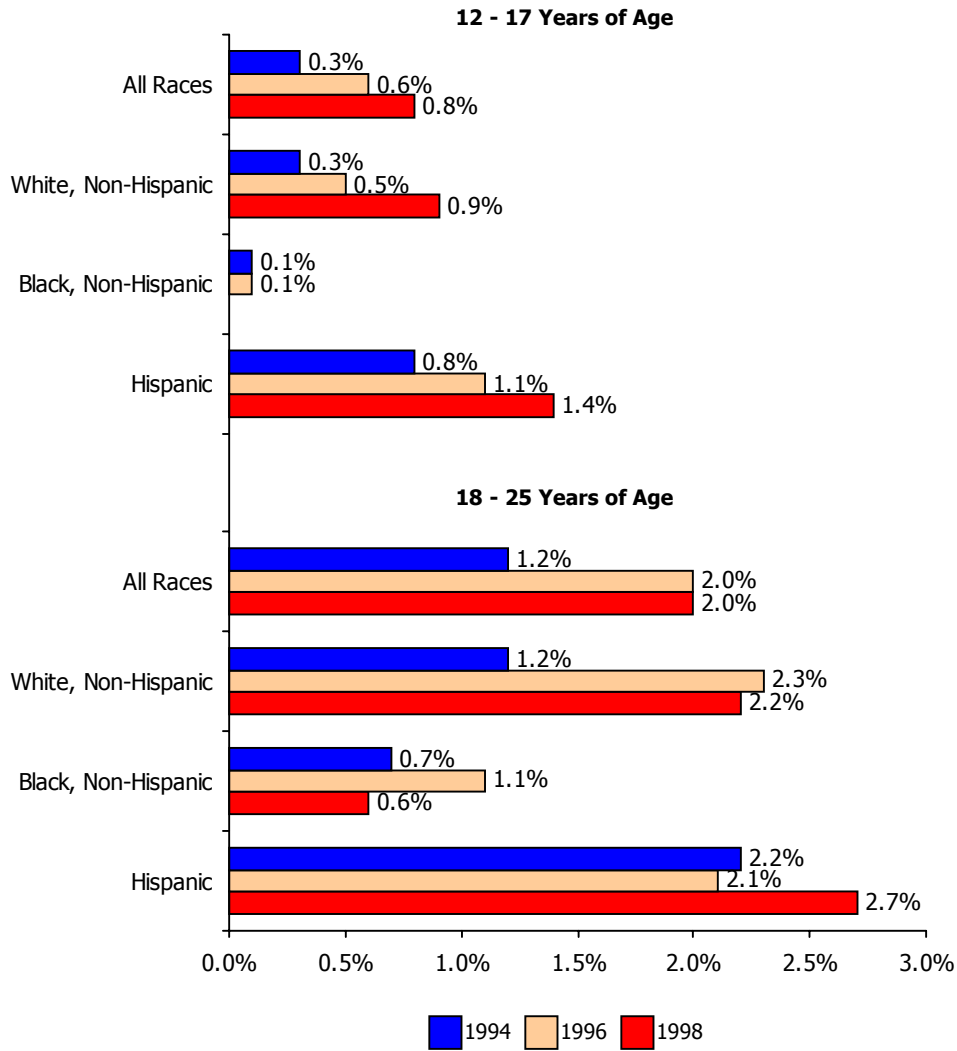
Chart 6.18:
Percent of Persons Reporting Use of Marijuana
in the Past Month by Age Group, Race, and Hispanic
Origin 1994, 1996, and 1998



Source: Health United States, 2000

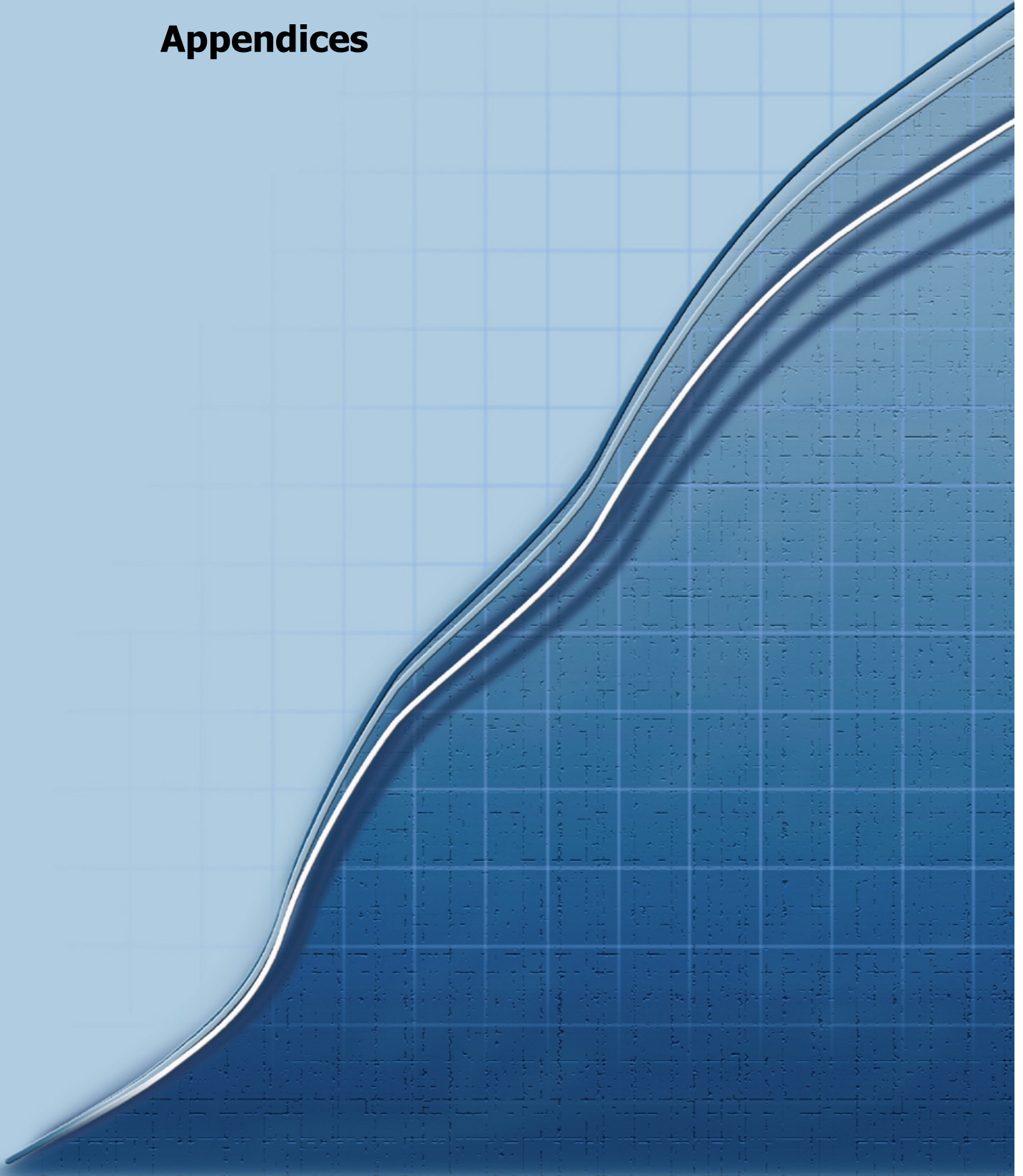


Chart 6.19:
Percent of Persons Reporting Use of Cocaine
in the Past Month by Age Group, Race, and Hispanic Origin
1994, 1996, and 1998



Source: Health United States, 2000

Appendices



**Appendix 1:
Supplementary Data Tables
Trends in the Overall Health Care Market**





Table 1.1:
National Health Expenditures
1980 - 1999

Year	Total National Health Expenditures				Prescription Drugs Total	
	Total		Per Capita		Nominal Dollars (Billions)	Real Dollars ⁽¹⁾ (Billions)
	Nominal Dollars (Billions)	Real Dollars ⁽¹⁾ (Billions)	Nominal Dollars	Real Dollars ⁽¹⁾		
1980	\$245.8	\$245.8	\$1,067	\$1,067	\$12.0	\$12.0
1981	\$285.1	\$258.4	\$1,225	\$1,110	\$13.4	\$12.1
1982	\$321.0	\$274.1	\$1,366	\$1,166	\$15.0	\$12.8
1983	\$353.5	\$292.5	\$1,489	\$1,232	\$17.3	\$14.3
1984	\$388.9	\$308.4	\$1,623	\$1,287	\$19.6	\$15.6
1985	\$426.5	\$326.6	\$1,763	\$1,350	\$21.8	\$16.7
1986	\$457.0	\$343.6	\$1,872	\$1,407	\$24.3	\$18.3
1987	\$497.5	\$360.9	\$2,018	\$1,464	\$26.9	\$19.5
1988	\$557.5	\$388.3	\$2,240	\$1,560	\$30.6	\$21.3
1989	\$622.1	\$413.4	\$2,475	\$1,645	\$34.8	\$23.1
1990	\$695.6	\$438.5	\$2,737	\$1,726	\$40.3	\$25.4
1991	\$761.5	\$460.7	\$2,964	\$1,793	\$44.9	\$27.2
1992	\$826.9	\$485.6	\$3,183	\$1,869	\$48.2	\$28.3
1993	\$887.6	\$506.1	\$3,380	\$1,927	\$51.3	\$29.2
1994	\$936.7	\$520.8	\$3,532	\$1,964	\$54.6	\$30.4
1995	\$987.0	\$533.6	\$3,686	\$1,993	\$60.8	\$32.9
1996	\$1,038.0	\$545.1	\$3,842	\$2,018	\$67.2	\$35.3
1997	\$1,093.9	\$561.6	\$4,011	\$2,059	\$75.1	\$38.6
1998	\$1,146.1	\$579.4	\$4,164	\$2,105	\$85.2	\$43.1
1999	\$1,210.7	\$598.8	\$4,358	\$2,155	\$99.6	\$49.2

Source: Health Care Financing Administration, Office of the Actuary: National Health Statistics Group
⁽¹⁾ Expressed in 1980 dollars; adjusted using the overall consumer price index for urban consumers



Table 1.2:
Percent Distribution of
Employer-sponsored Health Insurance Enrollment
by Type of Plan
1988 - 2000

	1988	1993	1996	1998	1999	2000
POS	N/A ⁽¹⁾	7%	14%	24%	25%	22%
HMO	16%	21%	31%	27%	28%	29%
PPO	11%	26%	28%	35%	38%	41%
Conventional	73%	46%	27%	14%	9%	8%

Source: The Kaiser Family Foundation and Health Research and Educational Trust, *Employer Health Benefits 2000 Annual Survey*

⁽¹⁾ Point-of-service plans not separately identified

Table 1.3:
Number and Percent Uninsured
1985 - 1999

Year	Number (in millions)	Percent
1985	34.6	14.8%
1986	34.2	14.4%
1987	31.0	12.9%
1988	32.7	13.4%
1989	33.4	13.6%
1990	34.7	13.9%
1991	35.4	14.1%
1992	38.6	15.0%
1993	39.7	15.3%
1994	39.7	15.2%
1995	40.6	15.4%
1996	41.7	15.6%
1997	43.4	16.1%
1998	44.3	16.3%
1999	42.6	15.5%

Source: US Census Bureau



Table 1.4:
Percent Uninsured
by State
1998 and 1999

State	% Uninsured		State	% Uninsured	
	98	99		98	99
Alabama	17.0%	14.3%	Montana	19.6%	18.6%
Alaska	17.3%	19.1%	Nebraska	9.0%	10.8%
Arizona	24.2%	21.2%	Nevada	21.2%	20.7%
Arkansas	18.7%	14.7%	New Hampshire	11.3%	10.2%
California	22.1%	20.3%	New Jersey	16.4%	13.4%
Colorado	15.1%	16.8%	New Mexico	21.1%	25.8%
Connecticut	12.6%	9.8%	New York	17.3%	16.4%
Delaware	14.7%	11.4%	North Carolina	15.0%	15.4%
District of Columbia	17.0%	15.4%	North Dakota	14.2%	11.8%
Florida	17.5%	19.2%	Ohio	10.4%	11.0%
Georgia	17.5%	16.1%	Oklahoma	18.3%	17.5%
Hawaii	10.0%	11.1%	Oregon	14.3%	14.6%
Idaho	17.7%	19.1%	Pennsylvania	10.5%	9.4%
Illinois	15.0%	14.1%	Rhode Island	10.0%	6.9%
Indiana	14.4%	10.8%	South Carolina	15.4%	17.6%
Iowa	9.3%	8.3%	South Dakota	14.3%	11.8%
Kansas	10.3%	12.1%	Tennessee	13.0%	11.5%
Kentucky	14.1%	14.5%	Texas	24.5%	23.3%
Louisiana	19.0%	22.5%	Utah	13.9%	14.2%
Maine	12.7%	11.9%	Vermont	9.9%	12.3%
Maryland	16.6%	11.8%	Virginia	14.1%	14.1%
Massachusetts	10.3%	10.5%	Washington	12.3%	15.8%
Michigan	13.2%	11.2%	West Virginia	17.2%	17.1%
Minnesota	9.3%	8.0%	Wisconsin	11.8%	11.0%
Mississippi	20.0%	16.6%	Wyoming	16.9%	16.1%
Missouri	10.5%	8.6%			

Source: US Census Bureau



**Table 1.5:
Growth in Medicare Spending per Beneficiary
vs. Private Health Insurance Spending
per Enrollee
1980 - 1999**

Year	Growth in Medicare Spending per Beneficiary	Growth in Private Health Insurance Spending per Enrollee
1980	18.6%	15.9%
1981	17.7%	16.3%
1982	15.4%	14.0%
1983	11.9%	9.9%
1984	9.4%	9.4%
1985	6.0%	10.9%
1986	5.0%	5.3%
1987	6.0%	11.9%
1988	4.8%	15.0%
1989	11.6%	12.9%
1990	7.1%	12.6%
1991	7.5%	11.1%
1992	10.7%	8.2%
1993	6.5%	7.3%
1994	10.3%	4.0%
1995	9.5%	5.0%
1996	6.7%	3.7%
1997	4.3%	4.5%
1998	-1.4%	5.5%
1999	-0.6%	5.4%

Source: Health Care Financing Administration, Office of the Actuary



Table 1.6:
Percent of Medicaid Beneficiaries Enrolled
in Medicaid Managed Care by State
1998 and 1999

State	% Enrolled		State	% Enrolled	
	98	99		98	99
Alabama	70.9%	65.7%	Montana	98.4%	63.3%
Alaska	0.0%	0.0%	Nebraska	72.8%	76.1%
Arizona	85.1%	85.9%	Nevada	38.7%	40.0%
Arkansas	56.0%	62.0%	New Hampshire	10.1%	5.5%
California	45.8%	51.9%	New Jersey	58.6%	58.7%
Colorado	99.0%	81.3%	New Mexico	79.7%	70.9%
Connecticut	71.9%	71.8%	New York	29.6%	24.0%
Delaware	76.8%	79.2%	North Carolina	68.6%	67.9%
District of Columbia	45.3%	62.6%	North Dakota	51.9%	52.4%
Florida	64.6%	60.2%	Ohio	28.4%	26.3%
Georgia	76.3%	64.8%	Oklahoma	49.7%	56.4%
Hawaii	80.5%	78.5%	Oregon	88.7%	81.5%
Idaho	34.8%	33.3%	Pennsylvania	68.3%	75.3%
Illinois	13.4%	11.1%	Rhode Island	63.2%	64.9%
Indiana	57.7%	61.5%	South Carolina	3.6%	3.6%
Iowa	92.1%	86.4%	South Dakota	70.6%	72.4%
Kansas	49.4%	53.5%	Tennessee	100.0%	96.8%
Kentucky	62.7%	60.4%	Texas	25.5%	23.1%
Louisiana	5.4%	6.9%	Utah	91.3%	92.4%
Maine	10.7%	25.6%	Vermont	48.3%	53.6%
Maryland	67.1%	81.3%	Virginia	60.0%	58.9%
Massachusetts	62.7%	71.1%	Washington	91.0%	97.8%
Michigan	68.0%	100.0%	West Virginia	42.5%	36.1%
Minnesota	52.6%	60.1%	Wisconsin	49.1%	46.9%
Mississippi	40.0%	46.7%	Wyoming	0.0%	0.0%
Missouri	41.5%	41.4%	Nation	53.6%	54.5%

Source: Health Care Financing Administration, Office of the Actuary

**Appendix 2:
Supplementary Data Tables
Organizational Trends**





Table 2.1:
Number of Community Hospitals⁽¹⁾
1980 - 1999

Year	All Hospitals	Urban	Rural	In Health System⁽²⁾
1980	5,830	2,955	2,875	-
1981	5,813	3,048	2,765	-
1982	5,801	3,041	2,760	-
1983	5,783	3,070	2,713	-
1984	5,759	3,063	2,696	-
1985	5,732	3,058	2,674	1,579
1986	5,678	3,040	2,638	1,735
1987	5,611	3,012	2,599	1,781
1988	5,533	2,984	2,549	1,857
1989	5,455	2,958	2,497	1,835
1990	5,384	2,924	2,460	1,822
1991	5,342	2,921	2,421	1,827
1992	5,292	3,007	2,285	1,814
1993	5,261	3,012	2,249	1,829
1994	5,229	2,993	2,236	1,956
1995	5,194	2,958	2,236	1,990
1996	5,134	2,908	2,226	2,058
1997	5,057	2,852	2,205	2,222
1998	5,015	2,816	2,199	2,176
1999	4,956	2,767	2,189	2,238

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

⁽¹⁾ All nonfederal, short-term general, and special hospitals whose facilities and services are available to the public

⁽²⁾ Hospitals that are part of a corporate body that may own and/or manage health provider facilities or health-related subsidiaries as well as non-health-related facilities including freestanding and/or subsidiary corporations



**Table 2.2:
Number of Beds and
Number of Beds per 1,000 Persons
1980 - 1999**

Year	Number of Beds	Beds per 1,000
1980	988,287	4.36
1981	1,001,801	4.37
1982	1,011,989	4.37
1983	1,018,452	4.36
1984	1,016,987	4.31
1985	1,000,598	4.21
1986	978,283	4.07
1987	956,529	3.95
1988	944,276	3.86
1989	932,185	3.78
1990	926,436	3.72
1991	922,822	3.66
1992	919,505	3.61
1993	917,847	3.56
1994	901,056	3.46
1995	871,976	3.32
1996	862,352	3.25
1997	853,287	3.19
1998	839,988	3.11
1999	829,575	3.04

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals



**Table 2.3:
Beds per 1,000 Persons
by State
1998 and 1999**

State	Beds per 1,000 Persons		State	Beds per 1,000 Persons	
	98	99		98	99
Alabama	3.91	3.73	Montana	5.01	5.29
Alaska	2.02	2.02	Nebraska	4.89	5.00
Arizona	2.33	2.21	Nevada	2.02	2.05
Arkansas	3.89	3.94	New Hampshire	2.40	2.48
California	2.28	2.22	New Jersey	3.25	3.02
Colorado	2.31	2.30	New Mexico	2.01	1.94
Connecticut	2.12	2.40	New York	3.77	3.79
Delaware	2.66	2.65	North Carolina	3.09	3.06
District of Columbia	6.79	6.82	North Dakota	6.23	6.13
Florida	3.30	3.27	Ohio	3.14	3.04
Georgia	3.30	3.18	Oklahoma	3.29	3.30
Hawaii	2.34	2.46	Oregon	2.07	2.00
Idaho	2.78	2.80	Pennsylvania	3.73	3.59
Illinois	3.26	3.10	Rhode Island	2.61	2.42
Indiana	3.29	3.23	South Carolina	3.00	2.99
Iowa	4.27	4.13	South Dakota	5.96	5.93
Kansas	4.15	4.38	Tennessee	3.81	3.76
Kentucky	3.87	3.78	Texas	2.86	2.83
Louisiana	4.08	3.84	Utah	1.91	1.96
Maine	3.03	2.95	Vermont	2.83	2.81
Maryland	2.47	2.25	Virginia	2.63	2.52
Massachusetts	2.68	2.64	Washington	1.89	1.93
Michigan	2.77	2.65	West Virginia	4.48	4.49
Minnesota	3.49	3.45	Wisconsin	3.20	3.02
Mississippi	4.73	4.77	Wyoming	4.02	3.82
Missouri	3.80	3.70			

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1999, for community hospitals



Table 2.4:
Percent of Hospitals
Offering “Non-hospital”
Products or Services
1994 - 1999

	1994	1995	1996	1997	1998	1999
Health Maintenance Organization	19%	21%	22%	23%	22%	20%
Preferred Provider	30%	31%	31%	31%	26%	23%
Indemnity Fee-for-service	10%	10%	10%	10%	8%	6%
Home Health Service		74%	77%	78%	76%	72%
Skilled Nursing Facility		45%	49%	52%	53%	49%
Long-term Care		13%	14%	15%	12%	11%
Assisted Living		8%	10%	11%	13%	14%
Hospice		53%	56%	56%	59%	56%
Meals on Wheels		23%	24%	25%	26%	25%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1994-1999, for community hospitals



Table 2.5:
Distribution of Inpatient vs. Outpatient Revenues
1980 - 1999

Year	Gross Outpatient Revenue	Gross Inpatient Revenue
1980	13%	87%
1981	13%	87%
1982	13%	87%
1983	13%	87%
1984	14%	86%
1985	16%	84%
1986	18%	82%
1987	19%	81%
1988	21%	79%
1989	21%	79%
1990	23%	77%
1991	24%	76%
1992	25%	75%
1993	27%	73%
1994	28%	72%
1995	30%	70%
1996	31%	69%
1997	33%	67%
1998	33%	67%
1999	34%	66%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

**Appendix 3:
Supplementary Data Tables
Utilization and Volume**

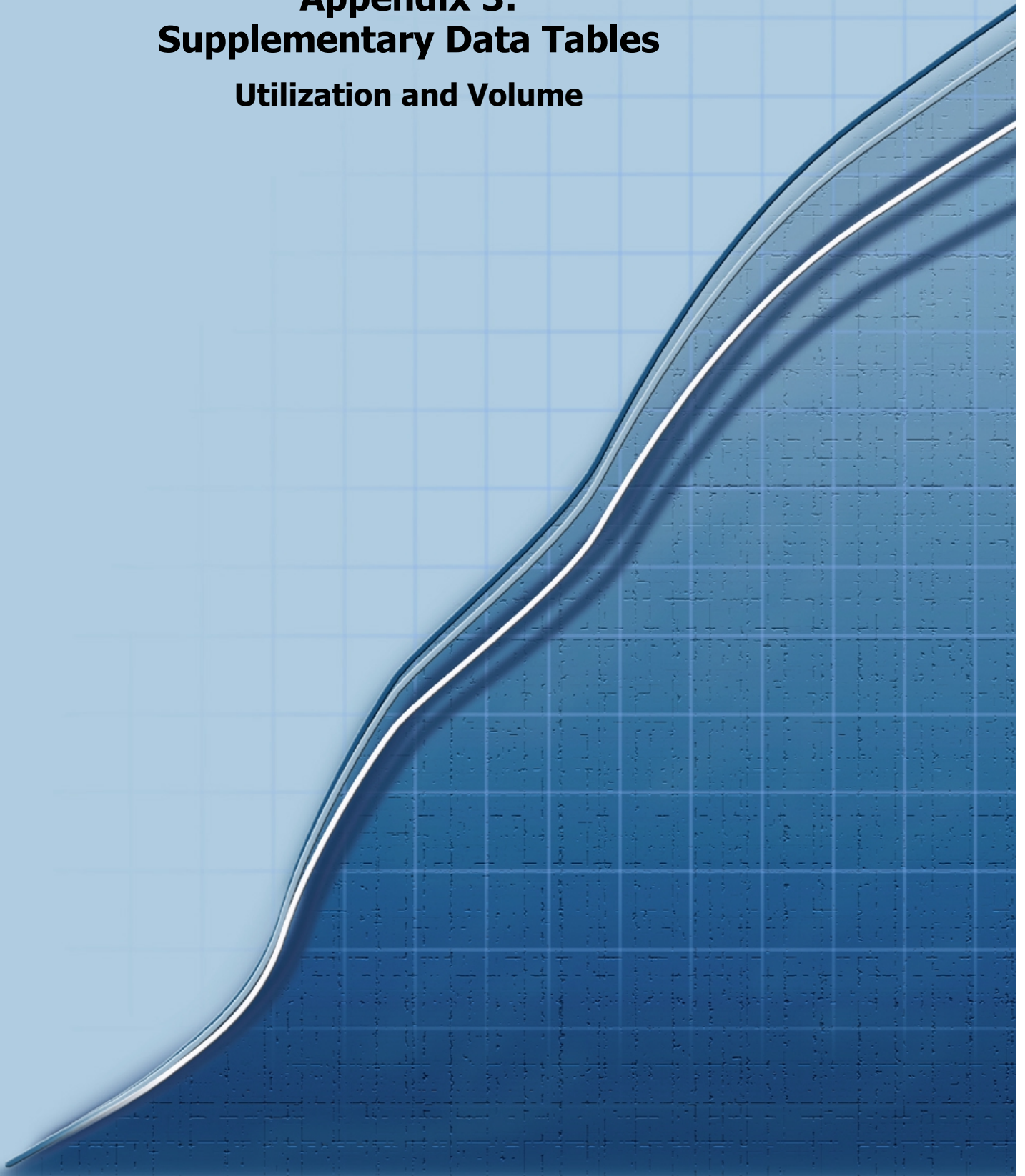




Table 3.1:
Trends in Inpatient Utilization
in Community Hospitals
1980 - 1999

Year	Inpatient Admissions in Community Hospitals	Inpatient Admissions per 1,000	Total Inpatient Days in Community Hospitals	Inpatient Days per 1,000	Average Length of Stay
1980	36,143,445	159.5	273,085,130	1,205.4	7.6
1981	36,438,232	158.8	278,405,882	1,213.3	7.6
1982	36,379,446	157.0	278,043,093	1,200.2	7.6
1983	36,151,780	154.6	273,196,906	1,168.5	7.6
1984	35,155,462	149.1	256,603,081	1,088.1	7.3
1985	33,448,631	140.6	236,619,446	994.5	7.1
1986	32,378,796	134.8	229,447,826	955.5	7.1
1987	31,600,817	130.4	227,014,903	937.0	7.2
1988	31,452,835	128.6	226,875,042	927.9	7.2
1989	31,116,048	126.1	225,436,505	913.4	7.2
1990	31,181,046	125.3	225,971,653	908.4	7.2
1991	31,064,283	123.2	222,858,470	883.9	7.2
1992	31,033,557	121.7	221,047,104	866.8	7.1
1993	30,748,051	119.3	215,888,741	837.6	7.0
1994	30,718,136	118.0	207,180,278	796.0	6.7
1995	30,945,357	117.8	199,876,367	760.7	6.5
1996	31,098,959	117.2	193,747,004	730.4	6.2
1997	31,576,960	118.0	192,504,015	719.2	6.1
1998	31,811,673	117.8	191,430,450	709.0	6.0
1999	32,359,042	118.7	191,884,270	703.7	5.9

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals



Table 3.2:
Average Length of Stay in Community Hospitals
by State
1998 and 1999

State	Average Length of Stay		State	Average Length of Stay	
	98	99		98	99
Alabama	5.6	5.4	Montana	11.2	11.9
Alaska	9.2	6.1	Nebraska	9.3	9.1
Arizona	4.9	4.7	Nevada	4.9	5.1
Arkansas	5.9	5.9	New Hampshire	6.0	5.5
California	5.3	5.3	New Jersey	6.3	5.8
Colorado	5.0	5.1	New Mexico	4.5	4.4
Connecticut	5.3	6.1	New York	8.1	8.0
Delaware	6.0	5.6	North Carolina	6.4	6.2
District of Columbia	7.0	7.1	North Dakota	10.3	9.8
Florida	5.6	5.5	Ohio	5.4	5.4
Georgia	6.7	6.8	Oklahoma	5.5	5.5
Hawaii	7.9	7.8	Oregon	4.5	4.4
Idaho	6.1	5.8	Pennsylvania	6.2	6.1
Illinois	5.9	5.5	Rhode Island	5.6	5.3
Indiana	5.8	5.9	South Carolina	6.0	5.9
Iowa	6.8	7.0	South Dakota	10.7	10.8
Kansas	7.2	6.8	Tennessee	5.8	5.7
Kentucky	5.8	5.8	Texas	5.3	5.2
Louisiana	5.6	5.5	Utah	4.6	4.6
Maine	5.8	6.0	Vermont	7.9	7.8
Maryland	5.6	5.2	Virginia	5.7	5.7
Massachusetts	5.7	5.7	Washington	4.8	4.8
Michigan	5.8	5.8	West Virginia	6.3	6.2
Minnesota	8.0	7.6	Wisconsin	6.2	6.1
Mississippi	7.1	7.0	Wyoming	8.7	7.7
Missouri	5.8	5.7			

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1999, for community hospitals



Table 3.3:
Outpatient Utilization in Community Hospitals
1980 - 1999

Year	Total Outpatient Visits	Outpatient Visits per 1,000	Outpatient Surgeries
1980	202,274,528	892.9	3,053,604
1981	202,554,317	882.7	3,561,573
1982	247,930,332	1,070.2	4,061,061
1983	210,038,878	898.4	4,714,504
1984	211,941,487	898.7	5,529,661
1985	218,694,236	919.2	6,951,359
1986	231,853,914	965.5	8,246,665
1987	244,495,134	1,009.1	9,126,205
1988	268,290,801	1,097.3	10,027,560
1989	284,815,681	1,153.9	10,350,871
1990	300,514,516	1,208.0	11,069,952
1991	321,044,324	1,273.4	11,711,808
1992	347,847,202	1,364.1	12,307,594
1993	366,533,432	1,422.0	12,624,292
1994	382,780,358	1,470.6	13,154,838
1995	413,748,403	1,574.6	13,462,304
1996	439,863,107	1,658.3	14,023,651
1997	450,140,010	1,681.8	14,678,290
1998	474,193,468	1,756.3	15,593,614
1999	495,346,286	1,816.5	15,845,492

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

**Appendix 4:
Supplementary Data Tables
Trends in Hospital Financing**





Table 4.1:
Annual Change in Hospital Operating Revenue and Expenses
per Adjusted Admission⁽¹⁾
1980 - 1999

Year	Expenses per Adjusted Admission	Operating Revenue per Adjusted Admission	Percent Change Expenses	Percent Change Operating Revenue
1980	\$1,851	\$1,878		
1981	\$2,171	\$2,203	17.3%	17.3%
1982	\$2,501	\$2,547	15.2%	15.6%
1983	\$2,789	\$2,841	11.5%	11.5%
1984	\$2,995	\$3,080	7.4%	8.4%
1985	\$3,245	\$3,359	8.3%	9.1%
1986	\$3,533	\$3,639	8.9%	8.3%
1987	\$3,850	\$3,929	9.0%	8.0%
1988	\$4,207	\$4,245	9.3%	8.1%
1989	\$4,588	\$4,628	9.1%	9.0%
1990	\$4,947	\$5,034	7.8%	8.8%
1991	\$5,360	\$5,481	8.3%	8.9%
1992	\$5,794	\$5,958	8.1%	8.7%
1993	\$6,132	\$6,290	5.8%	5.6%
1994	\$6,230	\$6,446	1.6%	2.5%
1995	\$6,216	\$6,466	-0.2%	0.3%
1996	\$6,225	\$6,522	0.2%	0.9%
1997	\$6,262	\$6,526	0.6%	0.1%
1998	\$6,386	\$6,589	2.0%	1.0%
1999	\$6,509	\$6,647	1.9%	0.9%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

⁽¹⁾ An aggregate measure of workload reflecting the number of inpatient admissions, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient admission in terms of level of effort



Table 4.2:
Aggregate Operating⁽¹⁾, Patient⁽²⁾, and Total Hospital⁽³⁾
Margins, Percent of Hospitals with Negative Total Margins,
and Aggregate Non-operating Gains
as a Percent of Total Net Revenue
1980-1999

Year	Aggregate Operating Margins	Aggregate Patient Margins	Aggregate Total Hospital Margins	Percent of Hospitals with Negative Total Margins	Aggregate Non-Operating Gains as a Percent of Total Net Revenue
1980			3.6%	25.7%	2.2%
1981			3.6%	25.4%	2.2%
1982			4.2%	24.0%	2.4%
1983			4.2%	24.1%	2.4%
1984			5.1%	24.6%	2.4%
1985			6.0%	23.3%	2.7%
1986			5.3%	25.7%	2.4%
1987			4.2%	31.4%	2.3%
1988			3.3%	32.5%	2.4%
1989			3.4%	30.8%	2.5%
1990	1.7%	-4.2%	3.9%	27.1%	2.1%
1991	2.2%	-3.6%	4.3%	24.7%	2.1%
1992	2.7%	-2.7%	4.6%	23.8%	1.9%
1993	2.5%	-3.2%	4.2%	24.2%	1.8%
1994	3.4%	-2.8%	4.8%	22.4%	1.5%
1995	3.9%	-2.2%	5.6%	20.4%	1.8%
1996	4.6%	-1.0%	6.7%	19.4%	2.3%
1997	4.0%	-1.7%	6.7%	20.4%	2.7%
1998	3.1%	-3.0%	5.8%	26.6%	2.8%
1999	2.1%	-4.3%	4.6%	32.5%	2.6%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

⁽¹⁾ Operating Margin is calculated as the difference between operating revenue and total expenses divided by operating revenue

⁽²⁾ Patient Margin is calculated as the difference between net patient revenue and total expenses divided by net patient revenue

⁽³⁾ Total Hospital Margin is calculated as the difference between total net revenue and total expenses divided by total net revenue



Table 4.3:
Aggregate Hospital Payment-to-cost Ratios
for Private Payers, Medicare and Medicaid
1980 - 1999

Year	Medicare	Medicaid	Private Payer
1980	96.5%	92.3%	112.9%
1981	97.8%	94.0%	112.2%
1982	96.1%	91.5%	115.8%
1983	96.8%	92.1%	116.8%
1984	98.7%	91.9%	118.5%
1985	102.0%	94.3%	117.1%
1986	101.7%	91.8%	116.3%
1987	98.3%	83.0%	119.8%
1988	94.2%	79.0%	121.7%
1989	92.1%	78.8%	124.4%
1990	89.4%	80.0%	128.3%
1991	88.5%	81.9%	130.8%
1992	89.0%	89.5%	131.8%
1993	89.9%	89.6%	130.1%
1994	96.9%	93.7%	124.4%
1995	99.3%	93.8%	123.9%
1996	102.4%	94.8%	121.6%
1997	103.6%	95.9%	117.5%
1998	101.8%	96.6%	115.8%
1999	99.9%	95.7%	115.1%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals



Table 4.4:
Hospital Total Medicare Margins
 1998 - 1999 Actual
 2000 - 2005 Projected

Year	Medicare	Medicare with Costs at MB-1	Medicare with Costs at MB
1998	1.8%		
1999	-0.1%		
2000		-0.7%	-1.5%
2001		0.6%	-1.0%
2002		0.9%	-1.6%
2003		0.5%	-2.8%
2004		0.7%	-3.4%
2005		1.1%	-3.8%

Source: The Lewin Group analysis

Notes: (1) Uncompensated Care and Other Government Payers are not shown separately in this chart
 (2) Medicare projections based on The Lewin Group Analysis of Medicare payment policies under the Balanced Budget Act of 1997, the Medicare Balanced Budget Refinement Act of 1999, and the Medicare Benefits Improvement Act of 2000.
 (3) The rate of inflation for hospitals is equal to the market basket for hospital inpatient PPS services. Market basket rates used in this analysis were between 2.4 and 3.5 percent.

MB-1 = rate of increase in the prices of goods and services purchased by hospitals less one percentage point
 MB = rate of increase in the prices of goods and services purchased by hospitals

**Appendix 5:
Supplementary Data Tables
Workforce**

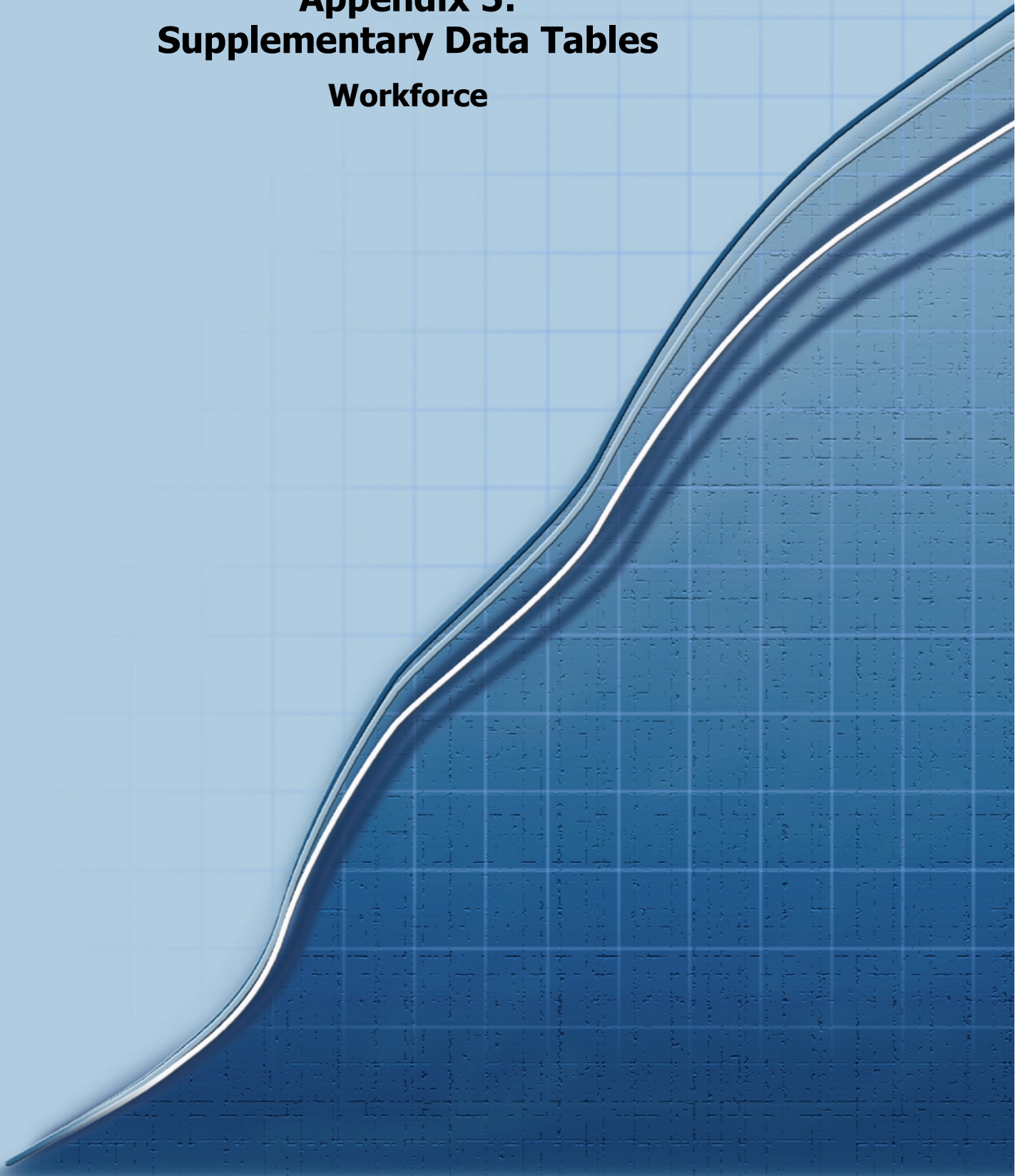




Table 5.1:
Total Number of Active Physicians per 1,000 Persons
by State
1997 and 1998

State	Physicians per 1,000 Persons		State	Physicians per 1,000 Persons	
	97	98		97	98
Alabama	1.97	1.94	Montana	1.92	1.91
Alaska	1.72	1.68	Nebraska	2.13	2.12
Arizona	2.17	2.13	Nevada	1.81	1.79
Arkansas	1.88	1.89	New Hampshire	2.13	2.36
California	2.41	2.37	New Jersey	2.34	3.06
Colorado	2.47	2.43	New Mexico	3.06	2.10
Connecticut	3.40	3.40	New York	3.71	3.71
Delaware	2.49	2.42	North Carolina	2.26	2.23
District of Columbia	6.92	6.85	North Dakota	2.24	2.20
Florida	2.44	2.43	Ohio	2.51	2.51
Georgia	2.08	2.06	Oklahoma	1.96	1.96
Hawaii	2.64	2.61	Oregon	2.26	2.24
Idaho	1.55	1.56	Pennsylvania	3.13	3.15
Illinois	2.62	2.58	Rhode Island	3.33	3.36
Indiana	1.97	1.96	South Carolina	2.05	2.01
Iowa	1.98	1.96	South Dakota	1.82	1.84
Kansas	2.19	2.14	Tennessee	2.43	2.39
Kentucky	2.07	2.04	Texas	2.03	2.04
Louisiana	2.35	2.36	Utah	1.97	1.96
Maine	2.39	2.47	Vermont	2.88	2.99
Maryland	3.59	3.54	Virginia	2.37	2.34
Massachusetts	3.91	3.84	Washington	2.38	2.32
Michigan	2.59	2.59	West Virginia	2.28	2.29
Minnesota	2.45	2.41	Wisconsin	2.28	2.25
Mississippi	1.60	1.62	Wyoming	1.71	1.69
Missouri	2.48	2.47			

Source: Health United States, 2000; includes active non-federal doctors of medicine and active doctors of osteopathy



**Table 5.2:
Medical and Dental Residents in Training
in Community Hospitals
1980 - 1999**

Year	Residents
1980	55,572
1981	57,776
1982	58,439
1983	59,990
1984	61,888
1985	59,171
1986	63,200
1987	60,909
1988	63,608
1989	64,478
1990	64,530
1991	67,189
1992	69,111
1993	73,377
1994	74,027
1995	78,137
1996	77,160
1997	75,398
1998	78,345
1999	77,796

*Source: The Lewin Group
analysis of American Hospital
Association Annual Survey data,
1980-1999, for community
hospitals*



**Table 5.3:
Total Full Time Equivalent Employees Working in Hospitals
and Full Time Equivalents per Adjusted Admission⁽¹⁾
1980 - 1999**

Year	FTE Personnel	FTE per Adjusted Admission
1980	2,872,772	0.069
1981	3,028,154	0.073
1982	3,305,136	0.079
1983	3,095,579	0.074
1984	3,016,665	0.073
1985	2,996,846	0.075
1986	3,024,320	0.076
1987	3,106,082	0.078
1988	3,195,168	0.080
1989	3,297,947	0.082
1990	3,415,622	0.083
1991	3,530,623	0.084
1992	3,615,145	0.084
1993	3,674,250	0.085
1994	3,690,905	0.083
1995	3,707,958	0.081
1996	3,724,843	0.079
1997	3,789,752	0.078
1998	3,831,068	0.077
1999	3,837,964	0.075

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1980-1999, for community hospitals

⁽¹⁾ An aggregate measure of workload reflecting the number of inpatient admissions, plus an estimate of the volume of outpatient services, expressed in units equivalent to an inpatient admission in terms of level of effort



Table 5.4:
Number of RN Full Time Equivalent Employees,
RN Full Time Equivalent Employees per Adjusted Admission
and RN Full Time Equivalents as a Percent of Total FTEs
1986 - 1999

Year	RN FTEs (thousands)	RN FTEs per Adjusted Admission	RN FTEs as a Percent of Total FTEs
1986	736.3	0.0185	24.3%
1987	759.0	0.0192	24.4%
1988	770.6	0.0192	24.0%
1989	791.5	0.0196	24.0%
1990	809.9	0.0197	23.7%
1991	840.5	0.0200	23.8%
1992	858.9	0.0201	23.7%
1993	874.1	0.0201	23.8%
1994	890.9	0.0201	24.1%
1995	893.7	0.0195	24.1%
1996	895.1	0.0190	24.0%
1997	901.2	0.0185	23.8%
1998	929.6	0.0186	24.3%
1999	938.0	0.0182	24.4%

Source: The Lewin Group analysis of American Hospital Association Annual Survey data, 1986-1999, for community hospitals



**Table 5.5:
RN Employment
by Type of Provider
1980 - 2000**

	1980	1984	1988	1992	1996	2000
Percent Employed by Hospitals	65.7%	68.1%	67.9%	66.5%	60.1%	59.1%
Percent Employed by Nursing Homes/Extended Care Facilities	8.0%	7.7%	6.6%	7.0%	8.1%	6.9%
Percent Employed by Public/Community Health	6.6%	6.8%	6.8%	9.7%	13.1%	12.8%
All Other	19.8%	17.3%	18.6%	16.8%	18.7%	21.2%

Source: Findings from the National Sample Survey of Registered Nurses, 1980 - 2000; Bureau of Health Professionals, Division of Nursing

**Table 5.6:
Annual Enrollment in US RN Education Programs
1987 - 1998**

Year	Total Enrollment
1987	182,947
1988	184,924
1989	201,458
1990	221,170
1991	237,598
1992	257,983
1993	270,228
1994	268,350
1995	261,219
1996	238,244
1997	227,327
1998	211,694

Source: National League for Nursing; 1997 and 1998 data are unpublished and unofficial