



In 2002, America's hospitals provided care for 556 million outpatients, treated 110 million people in their emergency rooms, performed 28 million surgeries, and delivered four million babies. Every year, hospitals provide vital health care services like these to those who need them. However, the importance of hospitals goes well beyond the health care services they provide.

Hospital care makes up the largest component of the health services and supplies sector, which itself is a growing segment of the U.S. economy. In 2002, this sector represented about 14 percent of Gross Domestic Product (GDP) — a measure of economic output — approximately \$1.5 trillion.¹ Hospitals accounted for \$486.5 billion of that.² Unlike sectors that lost economic vitality and shed jobs during the recent 2001 recession, the health care sector provided an economic mainstay, growing 2.3 percent.³

Hospitals support one out of every nine jobs in the U.S., either directly or indirectly. In 2002, community hospitals employed nearly 5 million people and spent about \$213 billion on goods and services in addition to employee wages. Hospitals provide jobs for local residents and purchase goods and services from other businesses in their own and other communities. Hospitals also contribute to the tax base of communities through payroll and other taxes.

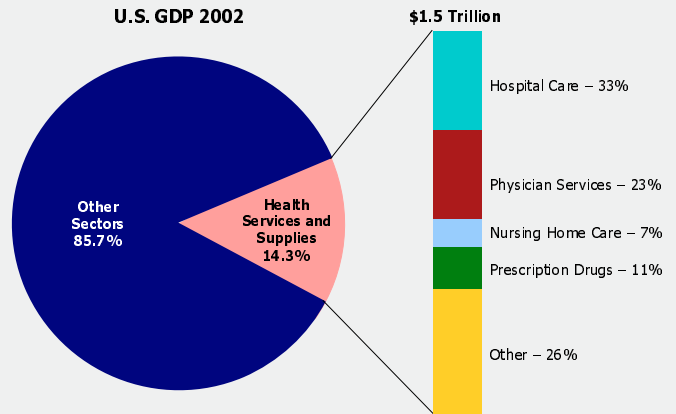
But the direct impact of hospitals as employers and purchasers is only part of the story. When hospitals buy food or linens, for example, or hospital employees spend their paychecks on groceries or clothing, these purchases support other businesses and create jobs within the community. These "ripple effects" are modeled by economic multipliers and show how spending in one sector affects spending in the economy as a whole. Nationally, each hospital job supports about two additional jobs and every dollar spent by a hospital supports \$2 of additional business activity.⁴

A strong health care network, in which hospitals play a key role, also adds to the attractiveness of a community as a place to settle, locate a business, or retire.

This issue of TrendWatch highlights the importance of hospitals to the national economy and hospitals' contributions to their communities through expenditures and job creation.

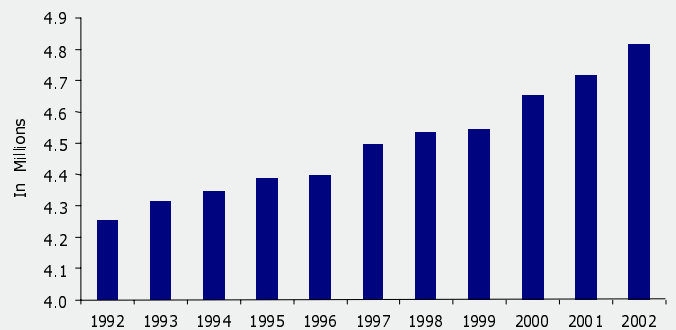
Health care is a major contributor to the U.S. economy.

Chart 1: National Expenditures on Health Services and Supplies as a Percentage of Gross Domestic Product and Breakdown of National Expenditures on Health Services and Supplies, 2002



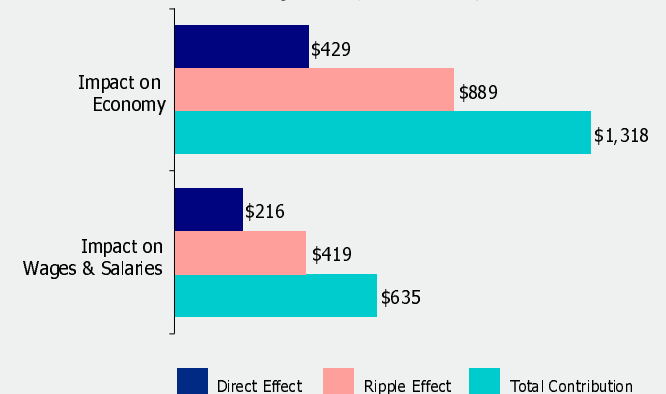
Nationwide, community hospitals employ nearly 5 million people...

Chart 2: Number of Full Time and Part Time Hospital Employees, 1992 - 2002



...and support other businesses and jobs in communities across the United States.

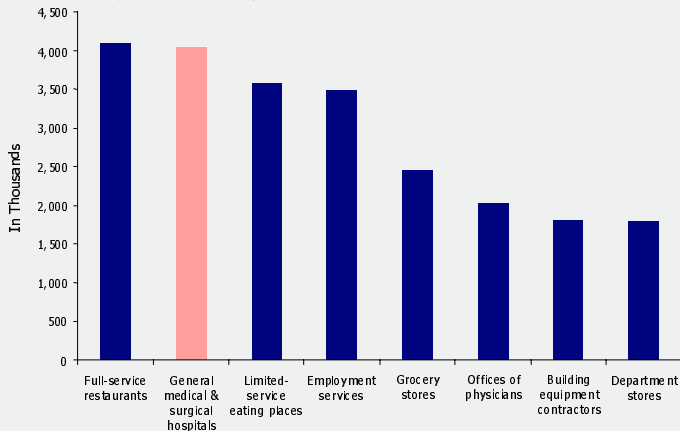
Chart 3: Impact of Community Hospitals on U.S. Economy, Based on 2002 AHA Annual Survey Data (in \$ billions)



Hospitals are among the largest employers, offering consistent job growth even in times of economic stress...

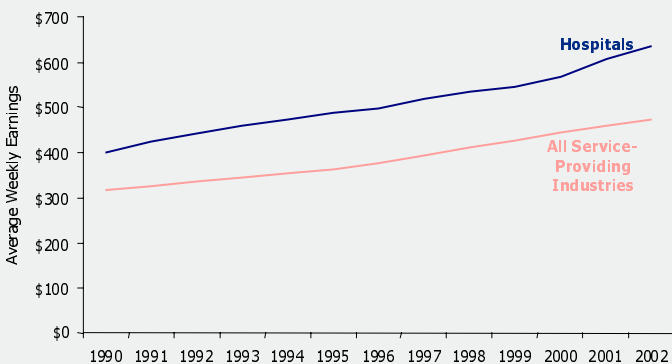
Hospitals are the second largest employer in the private sector...

Chart 4: Hospital Employment vs. Employment in Other Industries (in thousands), 2003



...offering higher pay...

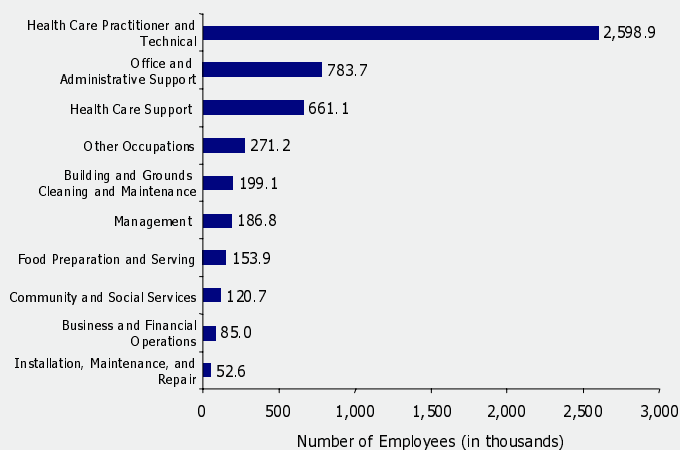
Chart 5: Average Weekly Earnings, Hospitals* vs. All Service-Providing Industries, 1990 - 2002



*Includes physicians employed by hospitals.

...a range of positions for workers with varying skill levels...

Chart 6: Hospital Employment by Occupation Type, 2002



Over half of hospital expenses are for salaries, wages, and benefits. In 2002, U.S. hospitals paid about \$216 billion in employee compensation.

Hospitals regularly rank among the top ten employers in large urban areas such as Boston, New York, and Detroit. Hospitals in Chicago employ more than 150,000 people – the top employer in the metropolitan area.¹ In Washington state, hospitals employ more workers than Microsoft or Boeing.²

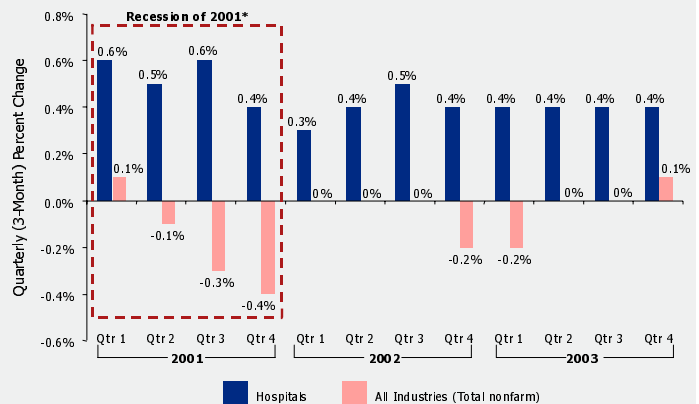
Hospitals are a large, established source of employment, providing jobs for a wide range of skill levels. Hospitals employ both highly skilled doctors, nurses, and therapists, as well as low-skilled workers in environmental and food service. For these workers, hospitals also furnish benefits, such as health insurance, that may be lacking in other job options, such as retail or other service jobs.

Hospitals offer a stable source of employment, even in times of economic stress. While the economy as a whole lost 1.6 million jobs during the 2001 recession, hospital employment grew two percent, and hospitals continued to report shortages in job classes such as nursing and pharmacy.^{3,4}

Facing a shortage of skilled workers, hospitals are investing in workforce development and retention activities — another way hospitals contribute to the economic base of communities. Some hospitals offer tuition reimbursement programs, partner with local colleges to provide access to training programs for employees to update or develop their skills, or have implemented mentoring programs for less experienced staff.

...and a consistent source of jobs, even during recessions.

Chart 7: Percent Change in Employment, Seasonally Adjusted: Hospitals vs. All Industries, 2001 - 2003



*Recession period defined as March 2001 – November 2001 by National Bureau of Economic Research.

...and supporting other jobs throughout the community.

The economic contribution of hospitals extends beyond the people directly employed by hospitals, hospital purchases of goods and services, and the taxes they pay.

Hospitals also support other businesses through so-called “ripple effects”. These effects can be generated in three ways.¹

- *Hospitals purchase goods and services*, such as drugs, information technology, food, bed linens, and “bricks and mortar” from other businesses in their communities. Those purchases create revenue for local businesses, and jobs and income for their employees.
- *Hospitals provide income for employees*. Hospital employees then purchase goods and services, such as cars, household appliances, and groceries. These purchases generate income and create jobs for other businesses in the community.
- *Wages and salaries paid by hospitals are subject to federal, state, and local taxes* (e.g., payroll taxes, sales taxes). In 2001, Washington state’s hospitals paid about \$466 million in taxes — about four percent of total state and local tax revenue. Considering the taxes paid by other businesses that hospitals support, total taxes generated by hospitals in Washington state were \$634 million.²

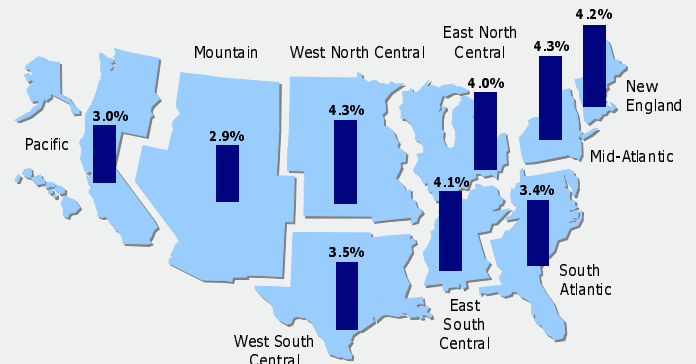
Impact of Rural Hospitals

In rural areas, hospitals are often either the largest or the second largest employer, behind the school system.³ In these communities, which often struggle to attract and retain college graduates, rural hospitals provide a source of high-tech job opportunities for young people who might otherwise leave communities heavily dependent upon agriculture. Rural hospitals also provide an anchor for other health care jobs, such as physicians and pharmacists which, in the absence of the hospital, may not be available. Total direct and indirect employment generated by health care is often 10 to 15 percent of a rural community’s employment.⁴

“The closure of a rural hospital can represent a serious threat not only to the health but also to the economic well being of the community. Loss of local jobs and income are an immediate result of closure of a rural hospital.” — Suzanne Berry, Mississippi State University

Hospitals directly account for as much as four percent of a region’s employment...

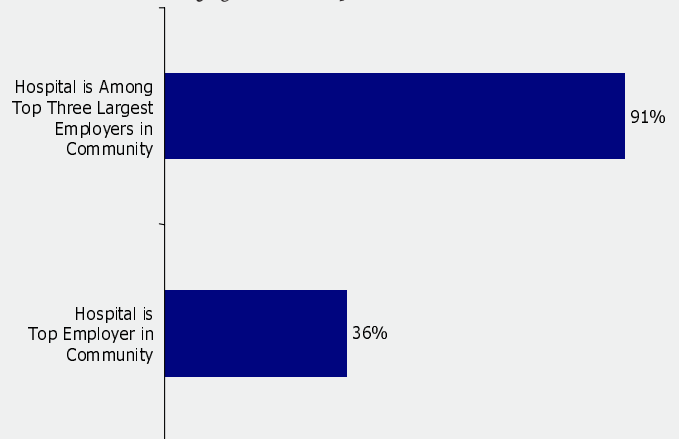
Chart 8: Percent of Total Regional Employment* by Hospitals, 2002



*Does not include farm employment.

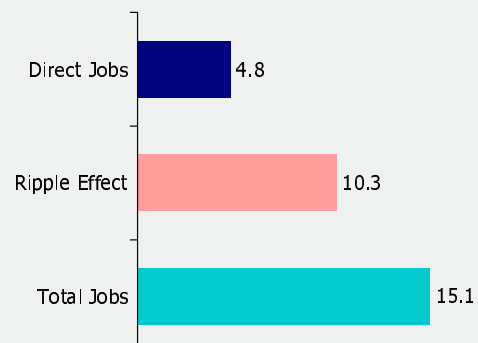
...and are often a mainstay in rural economies.

Chart 9: AHA Survey of Rural Hospitals, 2003



Hospitals support more than 15 million jobs in the United States.

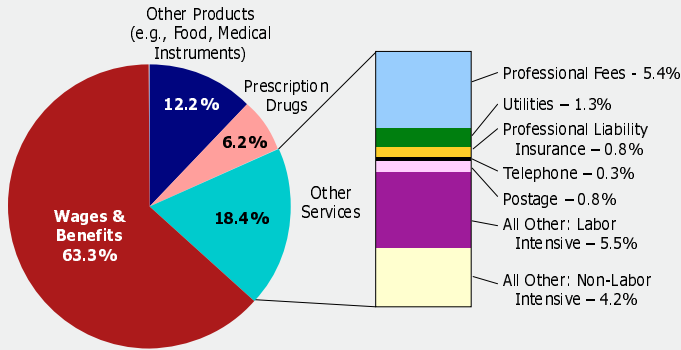
Chart 10: Impact of Community Hospitals on U.S. Employment, Based on 2002 AHA Annual Survey Data (in millions of jobs)



Hospital expenditures and tax payments stimulate economies...

Hospitals purchase a variety of goods and services...

Chart 11: Percent of Hospital Costs* by Type of Expense, 4Q03



*Does not include capital.

...which in turn support other industries nationwide.

Chart 12: Hospital Impact on Sectors of the U.S. Economy (in \$ billions), 2002

Industry	Economic Impact
Health Services	\$476.7
Finance, Insurance, and Real Estate	174.2
Business Services	112.6
Wholesale and Retail Trade	95.2
Other Services	88.4
Other Manufacturing	58.5
Chemicals & Allied Products and Petroleum & Coal Products	53.8
Transportation	35.5
Food products	32.3
Communications	26.4
Utilities	22.5
Construction	17.2
Farm Products & Agricultural, Forestry, and Fishing Services	16.6
Printing and Publishing	15.1
Paper and Allied Products	12.0
Mining	8.3
Electronic and Other Electric Equipment	6.9
Industrial Machinery and Equipment	5.4
Lumber & Wood Products and Furniture & Fixtures	5.0
Apparel and Other Textile Products	4.5
Forestry and Fishing Products	0.5
Total	\$1,267.5

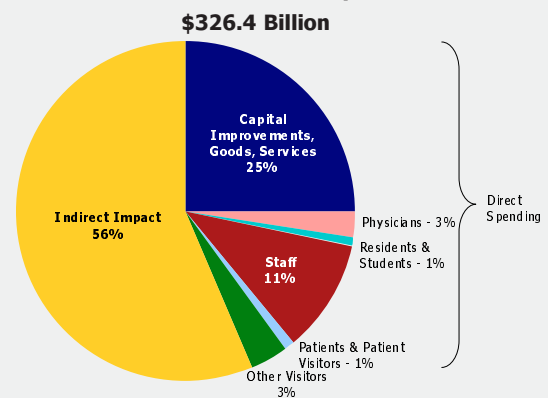
In addition to their investment in jobs, hospitals spend billions of dollars on other goods and services needed to provide health care services. Hospital purchases of everything from construction materials to paper products and bed linens can support other businesses in their communities. These expenditures by hospitals generate ripple effects in employment, income, sales, and taxes.¹

Large referral centers also help to expand the economic base of a community by attracting patients from outside the local area. These patients bring dollars into the community.

Economic Impact of Teaching Hospitals

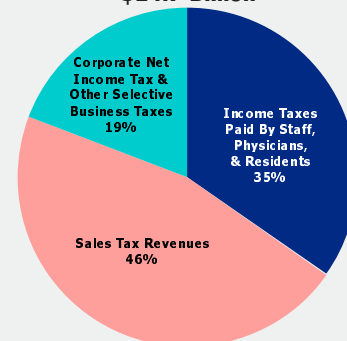
According to a recent study by the Association of American Medical Colleges, U.S. teaching hospitals and medical schools generated more than \$326 billion in economic activity in 2002. These institutions also helped generate \$14.7 billion in state government revenues. Nationwide, teaching hospitals and medical schools are major employers — accounting for 2.7 million jobs directly or indirectly in 2002.

Business Volume Impact



Impact on State Government Revenues

\$14.7 Billion



Source: The Economic Impact of Medical College and Teaching Hospital Members of the Association of American Medical Colleges (AAMC), 2002

...in the form of jobs and income for other businesses.

Hospitals support between 4 percent and 13 percent of employment by state.
 Chart 1.3: Impact of Community Hospitals on U.S. Economy, All States and Total U.S., Based on 2002 AHA Annual Survey data

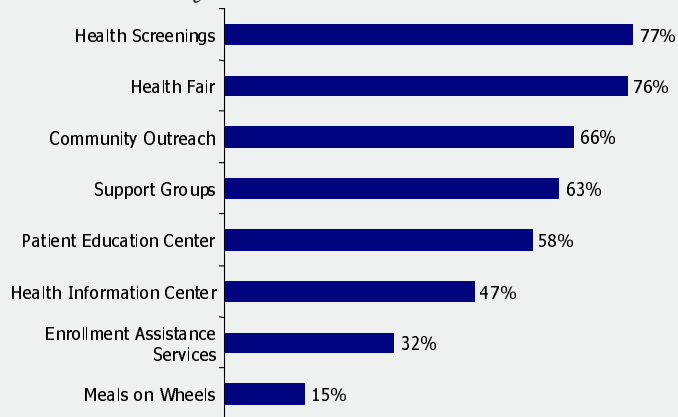
State	Number of Hospital Jobs (FT and PT)	Multiplier for Employment	Effect of Hospital Jobs on Total Jobs in State Economy	Percent of Total (Nonfarm) Employment Supported By Hospital Employment	Hospital Payroll and Benefits (\$ millions)	Multiplier for Earnings	Effect of Hospital Payroll and Benefits on Total Labor Income (\$ millions)	Hospital Expenditures* (\$ millions)	Multiplier for Output	Effect of Hospital Expenditures on Total Output in State Economy (\$ millions)
Alabama	77,935	2.3302	181,604	9.6%	\$2,913	2.0288	\$5,911	\$6,162	2.0866	\$12,857
Alaska	9,668	2.2421	21,677	7.3%	510	1.7678	902	907	1.8256	1,656
Arizona	60,751	2.4154	146,690	6.9%	2,747	2.1776	5,982	5,931	2.2057	13,085
Arkansas	48,810	2.1443	104,663	9.1%	1,796	1.8387	3,303	3,827	1.8926	7,243
California	412,412	2.5807	1,064,312	7.4%	22,092	2.3499	51,914	42,907	2.3988	102,926
Colorado	58,357	2.4685	144,054	6.6%	2,851	2.2688	6,469	6,020	2.3000	13,847
Connecticut	58,434	2.1879	127,848	7.7%	2,972	2.1016	6,246	5,235	2.1719	11,370
Delaware	16,803	2.2560	37,908	9.2%	720	1.8547	1,336	1,214	1.9525	2,371
District of Columbia	24,260	1.6756	40,650	6.1%	1,283	1.5922	2,042	2,260	1.4970	3,383
Florida	232,351	2.4289	612,935	8.5%	11,560	2.188	25,293	24,268	2.2024	53,447
Georgia	130,764	2.4582	318,829	8.2%	5,502	2.3072	12,695	11,017	2.3566	25,963
Hawaii	17,055	2.3827	40,637	7.3%	864	1.9415	1,679	1,576	1.9913	3,138
Idaho	20,543	2.2717	46,668	8.2%	776	1.8818	1,460	1,532	1.8953	2,904
Illinois	237,124	2.4889	590,178	10.0%	10,213	2.4473	24,994	19,737	2.5310	49,954
Indiana	115,284	2.2852	263,447	9.1%	4,883	2.0193	9,860	9,994	2.0991	20,979
Iowa	66,827	2.2197	148,336	10.3%	2,395	1.9282	4,619	4,525	1.9671	8,900
Kansas	48,080	2.2086	106,189	7.9%	1,894	1.9593	3,711	3,673	2.0650	7,585
Kentucky	76,715	2.2514	172,716	10.7%	3,034	1.9544	5,930	6,554	2.0007	13,269
Louisiana	89,241	2.1914	195,363	9.3%	3,373	1.9325	6,518	7,044	1.9686	13,867
Maine	27,719	2.3211	64,339	10.6%	1,119	1.9371	2,168	2,171	1.9624	4,261
Maryland	80,672	2.4734	199,534	8.1%	3,517	2.247	7,904	7,129	2.3076	16,452
Massachusetts	150,185	2.2847	343,128	10.6%	6,400	2.2033	14,100	12,980	2.2473	29,170
Michigan	185,084	2.2566	413,959	9.2%	8,054	2.0283	16,336	15,570	2.0735	32,284
Minnesota	101,609	2.3362	237,379	9.0%	4,390	2.1472	9,426	8,269	2.1867	18,082
Mississippi	51,585	2.1672	111,795	9.9%	1,969	1.874	3,689	4,170	1.9244	8,025
Missouri	121,160	2.4375	295,328	11.0%	4,834	2.1941	10,607	9,983	2.2853	22,815
Montana	18,727	2.2361	41,875	10.6%	738	1.8398	1,357	1,371	1.8607	2,550
Nebraska	39,182	2.2670	88,826	9.8%	1,490	1.9616	2,922	3,107	1.9989	6,211
Nevada	20,137	2.1443	43,180	4.1%	1,180	1.9159	2,261	2,559	1.9418	4,931
New Hampshire	23,179	2.2330	51,759	8.4%	1,009	2.057	2,076	1,894	2.0148	3,816
New Jersey	136,785	2.3345	319,325	8.0%	6,926	2.274	15,749	13,072	2.3632	30,892
New Mexico	27,247	2.4257	66,093	8.6%	1,095	1.9952	2,186	2,133	2.0185	4,305
New York	377,136	2.1114	796,285	9.4%	20,590	2.0144	41,477	35,890	2.1198	76,080
North Carolina	139,268	2.4969	347,738	9.0%	6,159	2.1946	13,516	12,051	2.2626	27,267
North Dakota	21,055	2.0815	43,826	13.3%	748	1.7502	1,308	1,405	1.7791	2,501
Ohio	227,791	2.4549	559,204	10.3%	10,055	2.1576	21,695	19,639	2.2289	43,773
Oklahoma	54,575	2.4659	134,576	9.1%	1,933	2.0903	4,083	4,269	2.1608	9,224
Oregon	55,717	2.3621	131,609	8.4%	2,391	1.9584	4,683	4,747	2.0343	9,657
Pennsylvania	260,255	2.4275	631,769	11.2%	10,304	2.3226	23,931	21,443	2.3864	51,170
Rhode Island	19,511	2.1919	42,766	8.9%	995	1.9338	1,925	1,728	1.9570	3,382
South Carolina	64,017	2.3889	152,930	8.5%	2,783	2.0689	5,730	6,136	2.1503	13,195
South Dakota	18,969	2.1193	40,201	10.6%	632	1.7886	1,167	1,269	1.8320	2,324
Tennessee	101,956	2.4318	247,937	9.3%	4,076	2.2153	9,031	8,841	2.2661	20,035
Texas	301,909	2.5395	766,698	8.1%	14,000	2.4039	33,655	30,020	2.4733	74,249
Utah	31,627	2.6135	82,657	7.7%	1,243	2.2228	2,763	2,707	2.2733	6,154
Vermont	13,570	2.2583	30,645	10.2%	449	1.8404	826	820	1.8430	1,511
Virginia	95,720	2.2902	219,218	6.3%	4,375	2.1508	9,410	9,018	2.2640	20,417
Washington	86,370	2.4517	210,026	7.9%	4,269	2.0552	8,774	8,007	2.1043	16,849
West Virginia	39,424	2.1005	82,810	11.3%	1,593	1.7576	2,800	3,125	1.7796	5,560
Wisconsin	96,563	2.2020	212,632	7.7%	3,949	1.9358	7,645	8,401	1.9698	16,548
Wyoming	8,022	1.9632	15,749	6.4%	334	1.6365	530	612	1.6704	1,021
U.S.	4,818,120	3.1326	15,093,243	11.6%	\$216,011	2.9401	\$635,094	\$428,881	3.0728	\$1,317,867

*Expenditures are defined as net patient revenue + other operating revenue.

Hospitals support their communities in many additional ways.

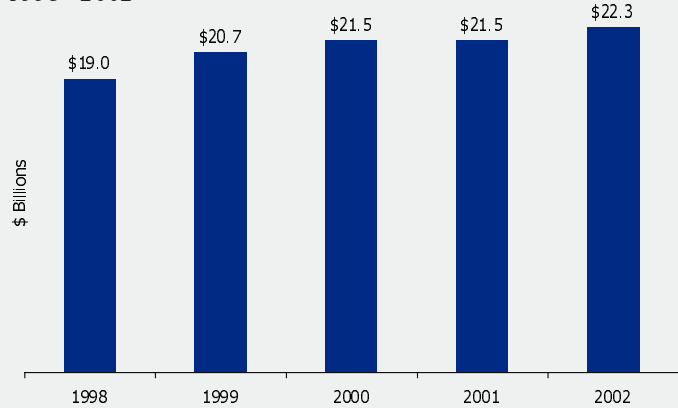
Hospitals offer an array of community services...

Chart 14: Percentage of Community Hospitals Offering Selected Community Outreach Services, 2002



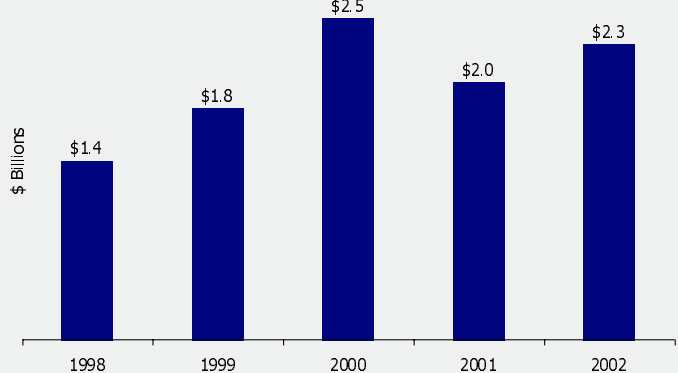
... provide charity care and other care for which no payment is received...

Chart 15: Total Uncompensated Care Costs (in \$ billions), 1998 - 2002



...and subsidize the care of Medicaid patients.

Chart 16: Shortfall in Hospital Medicaid Payments (in \$ billions), 1998 - 2002



In addition to providing traditional health care services and supporting their local economies, hospitals offer an array of special programs and activities to help meet communities' broader health and social needs.

Hospitals offer services that aid in disease prevention, promote health awareness, contribute to advances in medicine, and address other societal needs that impact health. Examples of the types of community programs hospitals offer include:

- Health programs such as educational outreach, health screenings, and support groups;
- Subsidized health services (e.g. free clinics, vaccinations);
- Programs to address the social needs of communities (e.g. meals on wheels, shelters);
- Health professions training programs for physicians, nurses, and technical staff;
- Continuing education for health professionals; and
- Clinical research.

Hospital charity care programs also provide care free or on a sliding scale for patients with limited financial means. Hospitals have specific criteria to identify patients eligible for this care. In 2002, hospitals provided over \$22 billion of uncompensated care – a mixture of charity care and other care for which payment was expected but not received.

Hospitals also offer services to other needy patients through Medicaid. These services are not fully reimbursed for U.S. community hospitals. In 2002, Medicaid payments fell short of the costs of care provided by \$2.3 billion, a number that includes disproportionate share payments. These payments are intended to subsidize the costs of caring for other low-income populations, but often do not cover the Medicaid shortfall.

"Dollars can't measure the depth of the impact that the hospital has upon the health of our community." — Darlene Burns, MS, RN, President/Chief Executive Officer, Rome Memorial Hospital, NY

Summary and Conclusions

Hospitals contribute to the economic viability of local and regional communities by serving as the mainstay of health care community networks and stimulating demand for goods and services produced by local businesses. Hospitals continue to provide job opportunities during recessions. However, when investors, policymakers, and the public think about industries that promote economic stability and growth, most do not think about hospitals. Indeed, increases in expenditures on manufacturing or technology inspire optimism about the nation's fiscal health, while increases in expenditures on health care are viewed with concern. But, the fact remains that hospitals are strong contributors to the U.S. economy.

- Hospitals create a steady source of employment even in economic downturns:
 - High pay relative to other service sectors
 - Jobs across a wide spectrum of skill levels
 - Jobs not easily “outsourced” abroad
- Hospital — and hospital employee — purchases of goods and services support other community businesses.
- With “ripple effects” included:
 - Hospitals support one of every nine jobs in the U.S.
 - Hospitals support over \$1.3 trillion of economic activity.

Quotes from the Field

“If the health sector increases or decreases in size, the medical health of the county, as well as its economic health, will greatly be affected.” —

Gerald A. Doekson, Regents Professor, Oklahoma State University

“Any significant change in hospital expenditures in any part of the state will create significant economic ripples that will be felt statewide...Because many hospital payments come from state and federal governments, we are particularly affected by their budget changes.” — Leo Greenawalt, President of the Washington State Hospital Association

“[Massachusetts] hospitals are, in effect, a significant source of export revenue. Better ways to support the region's hospital system need to be pursued in order to maintain this critical asset for human and economic well being.” — Ross DeVol, Director of Regional and Demographic Studies; Rob Koepp, Research Fellow, Milken Institute

Endnotes:

- Page 1: ¹ Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group
² Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group
³ Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Survey
⁴ Department of Commerce, Bureau of Economic Analysis
- Page 2: ¹ Devol RC, Koepp, R. *America's Health Care Economy*, Milken Institute, August 2003, p.7
² Washington State Hospital Association, Health Information Program analysis of Washington State Employment Security Department data, June – August 2003
³ Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Survey, seasonally-adjusted monthly employment data for March 2001 and November 2001
⁴ *The Healthcare Workforce Shortage and Its Implications for America's Hospitals*, First Consulting Group, Fall 2001
- Page 3: ¹ These analyses reflect a one year time period and assume all other services remain unchanged.
² *The Business of Caring: The Economic Impact of Hospitals in Washington State*, The Washington State Hospital Association
³ Doekson GA, Schott V, *The Economic Importance of the Health Care Sector on a Rural Economy*, presentation at 5th Wonca World Conference on Rural Health, Melbourne, Australia, April 30 - May 3, 2003
⁴ Doekson GA, Johnson T, Willoughby C, *Measuring the Economic Importance of the Health Sector on a Local Economy: A Brief Literature Review and Procedures to Measure Local Impacts*, The Southern Rural Development Center, January 1997
- Page 4: ¹ These effects have been modeled for various industries, including hospitals. The models reflect changes for one year and assume all other services remain unchanged.

Sources:

- Chart 1: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group
Chart 2: The Lewin Group analysis of American Hospital Association Annual Survey data, 1992 – 2002
Chart 3: The Lewin Group, using BEA RIMS-II multipliers applied to 2002 American Hospital Association Annual Survey data (also shown in Chart 13)
Chart 4: Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Survey, custom data request
Chart 5: Department of Labor, Bureau of Labor Statistics, Current Employment Statistics Survey
Chart 6: Department of Labor, Bureau of Labor Statistics, 2002 National Industry-Specific Occupational Employment and Wage Estimates
Chart 7: Department of Labor, Bureau of Labor Statistics; Recession period defined by National Bureau of Economic Research (March 2001 - November 2001)
Chart 8: The Lewin Group analysis of American Hospital Association 2002 Annual Survey data and 2002 total nonfarm employment data from the Bureau of Labor Statistics
Chart 9: American Hospital Association Survey of Rural Hospitals, October 2003
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Chart 11: Centers for Medicare and Medicaid Services, 2003
Chart 12: The Lewin Group analysis of American Hospital Association 2002 Annual Survey data using Bureau of Economic Analysis industry multipliers for the hospital sector
Chart 13: The Lewin Group using BEA RIMS-II multipliers for hospital SIC Code 806 applied to American Hospital Association Annual Survey data for 2002. Expenditures are defined as net patient revenues and other operating revenues. Hospital jobs are total part time and full time jobs. Hospital labor income is defined as payroll plus benefits. The percent of total nonfarm employment supported by direct and indirect hospital employment is based on BLS data.
Chart 14: The Lewin Group analysis of American Hospital Association Annual Survey data, 2002
Chart 15: The Lewin Group analysis of American Hospital Association Annual Survey data, 1998 – 2002
Chart 16: The Lewin Group analysis of American Hospital Association Annual Survey data, 1998 – 2002

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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