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Managed Care Digest Series™ 2000

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1 Institutional Highlights Digest

2 Managed Care Trends Digest 2000

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Contents, Vol. 1

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Introduction

Aventis Pharmaceuticals is pleased to present the **Managed Care Trends Digest 2000**, a single-issue special edition of the Aventis Pharmaceuticals **Managed Care Digest Series™**. This reorganized annual family of reports sponsored by Aventis Pharmaceuticals also includes the **Institutional Highlights Digest,** the **Medical Group Practice Digest,** and the **HMO-PPO/Medicare-Medicaid Digest.** All these digests are still published in printed versions, but this year the **Managed Care Digest Series™** includes, for the first time, electronic versions of Digests, available only on the World Wide Web at **managedcaredigest.com**.

The **Managed Care Digest Series™** eDigests for 2000 are the first available in electronic, interactive versions. These Digests are searchable, using key words, and allow for the downloading of Digest data to "make your own."

Watch for future editions of the Aventis Pharmaceuticals **Managed Care Digest Series™** to be made available in expanded format on the World Wide Web at **managedcaredigest.com.**

The **Managed Care Trends Digest 2000** tracks key developments in the U.S. health care delivery system across more than 15 years of evolutionary changes. In this 32-page retrospective, changes and trends from the more than 2,280 **Managed Care Digest Series™** pages published between 1987 and 2000 have been recorded and analyzed.

The report contains a cross section of data from 1983 to 1999, depicted in tables and graphs that present trends over time. The report looks at what has happened to HMO and PPO plans, pharmacy benefits and costs, utilization patterns, hospitals and health systems, integrated delivery systems, medical group practices, nursing homes and home care agencies.

The intent of this report is to present snapshots of the past that illuminate what may be around the next bend, so that stakeholders in the health care system can anticipate further changes now underway.

In some instances, regulation at the state or federal level has had a major impact on the system, bringing about changes or, at the very least, magnifying them. This report also comments on some of the more general social policy trends in the U.S. environment of the 1980s and 1990s that have converged with the forces of managed care to spur the pace of change or cause the system to move in entirely new directions.

Visit our Web site at **managedcaredigest.com** to access the first electronic version of the Aventis Pharmaceuticals **Managed Care Digest Series™** and to access downloadable PowerPoint slides featuring Digest data.

Data Sources

Data for this Digest were collected from the **Managed Care Digest Series™,** 1987-2000. Data sources include SMG Marketing Group, Inc., and the American Medical Association (AMA), Chicago, Ill.; the Medical Group Management Association (MGMA), Englewood, Colo.; the American Medical Group Association (AMGA, formerly the American Group Practice Association), Alexandria, Va.; and the Unified Medical Group Association (UMGA), Woodland Hills, Calif., (now merged with AMGA).

Summary of Key Findings

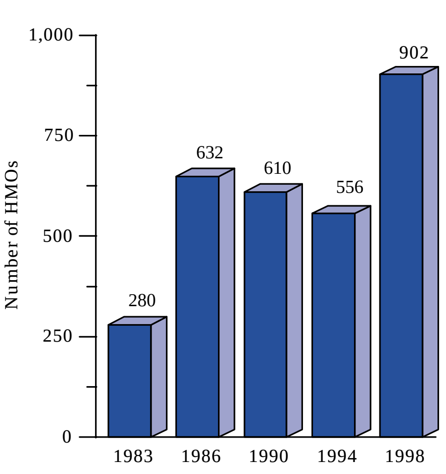
- Enrollment in HMOs nationwide multiplied more than 8.4 times between 1983 (12.5 million) and 1998 (105.3 million). In this 15-year period, the number of licensed, operating HMO plans increased more than 3.2 times, to 902 from 280.
- Most of the growth in HMOs has been in IPA-model plans, which accounted for 67.2% of all operating HMOs and, by 1998, enrolled the majority of HMO members.
- In 1998, almost 28 million enrollees (or 26.5% of total HMO membership) were covered in point-of-service (POS) and open-ended (OE) plans, up from 9.1 million enrollees (or 16.6% of all HMO membership) in 1994.
- The number of PPO eligibles more than tripled, to 98.3 million in 1998 from 28.5 million in 1987, while the number of PPOs rose to 1,127 from 692.
- The total number of Medicare beneficiaries enrolled in HMO plans climbed to 6.5 million in 1998 from 1.4 million in 1986. By 1998, 17.3% of the nation's 37.6 million Medicare beneficiaries were enrolled in HMOs.
- The number of Medicaid recipients in managed care organizations rose almost 20 times, to 15.8 million in 1998 from 601,829 in 1986.
- HMO market penetration nationwide increased by nearly 28 percentage points between 1986 (10.9%) and 1998 (38.8%).
- Pharmaceutical expenditures accounted for 13.6% of total HMO costs in 1998, up from 10.0% in 1988.
- Hospital admissions per 1,000 commercial (non-Medicare) HMO members fell 21.7% between 1990 (74.6) and 1998 (58.4).
- Between 1994 and 1998, the average number of ambulatory visits rose for commercial (to 2.0 from 1.7), Medicare (to 3.3 from 2.7) and Medicaid (to 1.8 from 1.6) HMO members.
- The number of hospital days per 1,000 declined 45.8% (to 210.5 days in 1998 from 388.3 in 1986) for commercial HMO members, 15.1% (to 1,320.5 days in 1998 from 1,628.0 in 1990) for Medicare HMO members and 4.3% (to 402.0 days in 1998 from 420.0 in 1994) for Medicaid HMO members.
- The average number of prescriptions per commercial HMO member per year (PMPY) increased 42.9% in the 10-year period from 1988 (4.9) to 1998 (7.0).
- Fully 80% of PPOs included a managed pharmacy program by 1998, up significantly from 37% in 1990.
- Some 604 hospitals and systems were integrating by 1999, 13.7% more than the 531 in 1995. Only 299 systems were considered highly integrated, almost double the 159 in 1995.
- Between 1994 and 1998, integrated systems gained market share in the areas of admissions, inpatient days per facility, inpatient and outpatient surgeries, and outpatient visits.
- By AMA estimates, in 1994 there were 185,000 physicians practicing in 16,500 medical group practices. By 1998, these numbers had increased to an estimated 206,557 physicians practicing in 19,478 medical group practices.
- The average occupancy rate in the nation's nursing homes has gradually declined from a peak of 93% in 1994 to 87% in 1999.

Total enrollment in operating HMOs surpasses 100 million by 1998

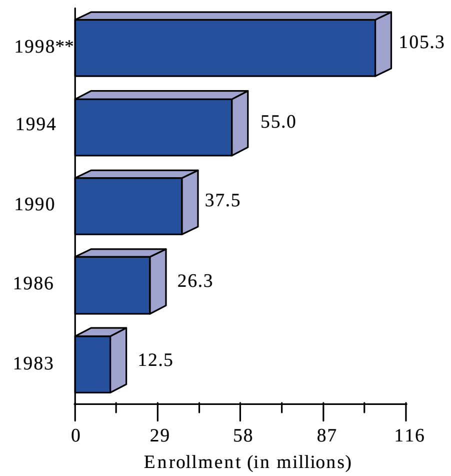
Total enrollment in HMOs nationwide increased more than 8.4 times in the 15 years between 1983 and 1998, to 105.3 million from 12.5 million. During this same period, the number of licensed, operating HMO plans rose just over 3.2 times, to 902 from 280.

Most of the growth in HMOs was in IPA-model plans, which accounted for 67.2% of all operating HMOs in 1998, up from 58.2% in 1986. HMO market penetration increased by nearly 28 percentage points nationally between 1986 and 1998, to 38.8% from 10.9%.

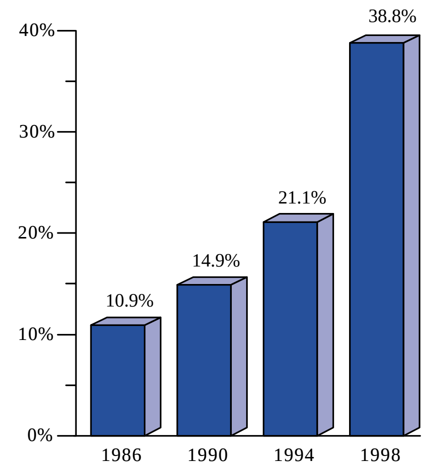
NUMBER OF OPERATING HMO PLANS, 1983–1998*



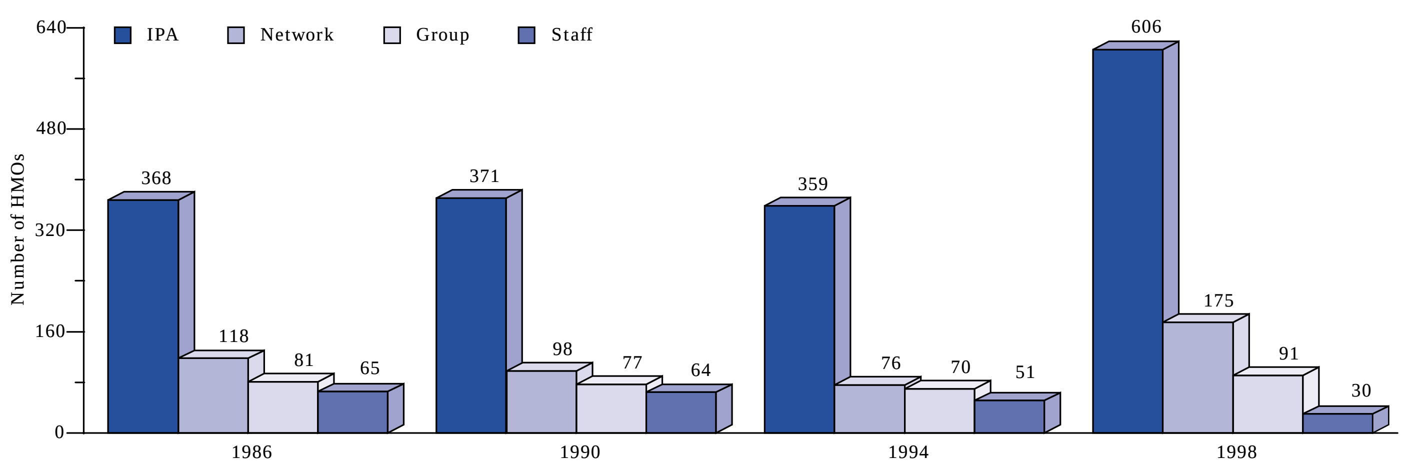
HMO ENROLLMENT, 1983–1998*



NATIONAL HMO PENETRATION (%)*



NUMBER OF OPERATING HMO PLANS BY MODEL TYPE, 1986–1998*



Data source: SMG Marketing Group Inc. © 2000

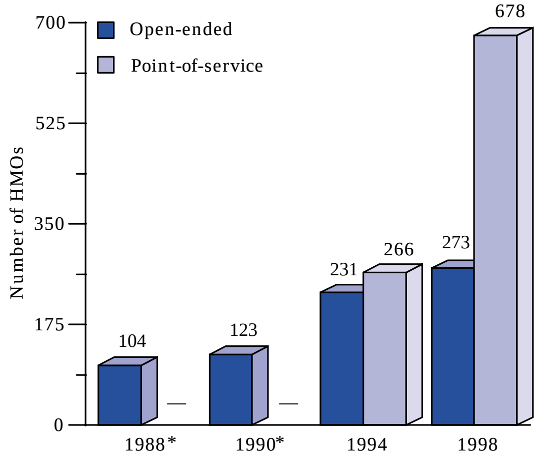
* Operating plans only. HMOs not licensed by state agencies are excluded from all totals.

** Enrollment data include HMO members in Puerto Rico, who numbered 634,179 in 1998.

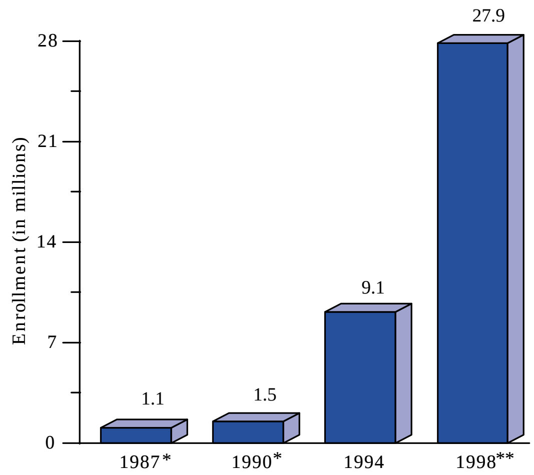
POS/OE enrollment soars during 1990s because of desire for flexibility

Almost 28 million enrollees (or 26.5% of total HMO membership) were covered in point-of-service (POS) and open-ended (OE) plans in 1998, up dramatically from 9.1 million enrollees (or 16.6% of all HMO membership) in 1994. The number of HMOs offering point-of-service plans nearly tripled during this four-year period, to 678 from 231. Between 1988 and 1998, the HMOs offering OE options increased to 273 from 104. This growth was largely the result of employers and employees wanting to allow greater choice of providers.

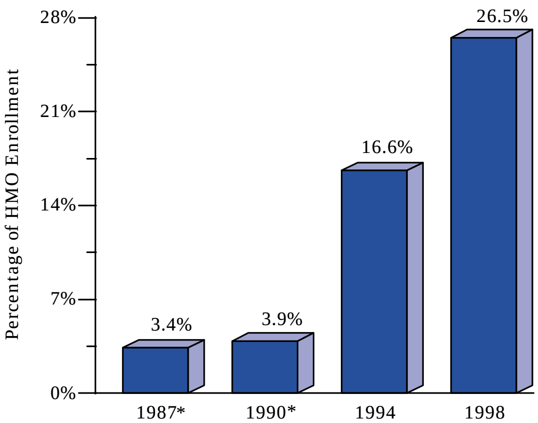
NUMBER OF HMO PLANS OFFERING OPEN-ENDED OPTIONS OR POINT-OF-SERVICE PLANS



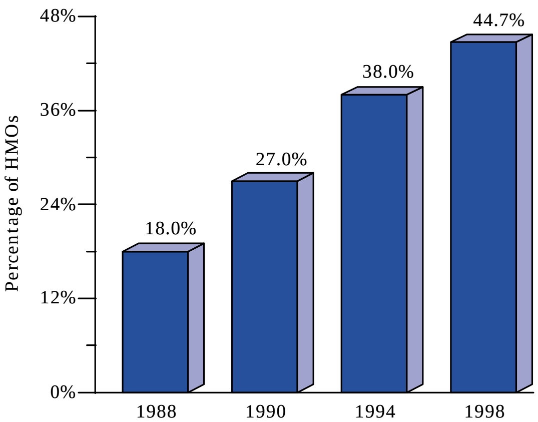
ENROLLMENT IN OE AND/OR POS PROGRAMS



OE AND/OR POS ENROLLMENT AS A PERCENTAGE OF TOTAL HMO ENROLLMENT



HMOs OFFERING TRIPLE-OPTION PLANS



* Enrollment includes only open-ended option plans and HMOs offering open-ended options.

** Enrollment figures are based on the number of reporting HMOs offering point-of-service plans and open-ended options.

Open-ended options allow members enrolled in an HMO plan to use the plan's provider network or to go outside of the network to any physician of choice.

Point-of-service plans may be separately licensed HMOs by a state department of insurance; these plans allow HMO members to use the plan's provider network or to go outside the network to obtain services. Both types of hybrid plans generally assess a higher fee to the HMO member for going outside the provider network.

Triple-option plans include a choice of HMO, PPO or indemnity plan.

Data source: SMG Marketing Group Inc. © 2000

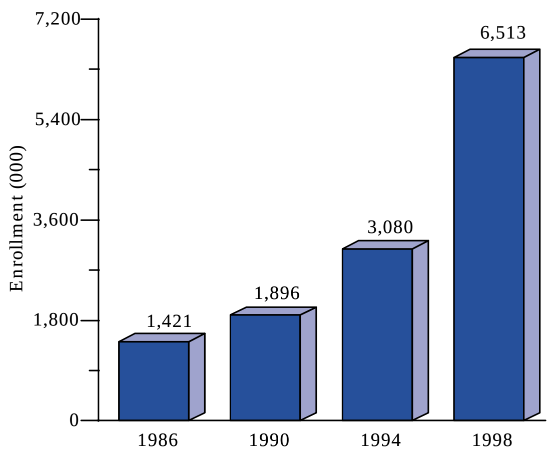
HMOs pull millions of Medicare, Medicaid recipients into managed care

The total number of Medicaid recipients enrolled in HMOs nationwide increased more than 16 times between 1986 (601,829) and 1998 (9.8 million). By 1998, just under three-fifths (excluding Medicaid recipients in Puerto Rico) of the nation's 15.8 million Medicaid MCO members were enrolled in state-licensed HMOs. Similarly, the total number of Medicare beneficiaries enrolled in HMOs climbed to 6.5 million in 1998 from 1.4 million in 1986. By 1998, 17.3% of the nation's 37.6 million Medicare beneficiaries were in HMOs.

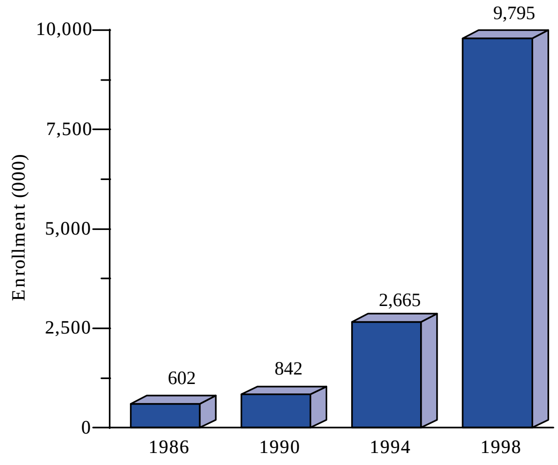
MEDICARE/MEDICAID HMO ENROLLMENT, 1986–1998*

	Number of Enrollees		# of HMOs Accepting Government Beneficiaries	
	Medicare Enrollment	Medicaid Enrollment	Medicare	Medicaid
1986	1,421	602	332	159
1990	1,896	842	211	88
1994	3,080	2,665	223	146
1998**	6,513	9,795	335	267

NUMBER OF MEDICARE ENROLLEES*



NUMBER OF MEDICAID ENROLLEES*, **



* Excludes unlicensed HMOs.

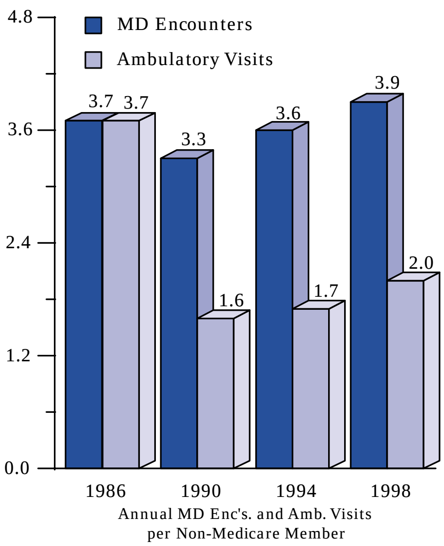
** The data for 1998 include 551,751 Medicaid enrollees in Puerto Rico.

Data source: SMG Marketing Group Inc. © 2000

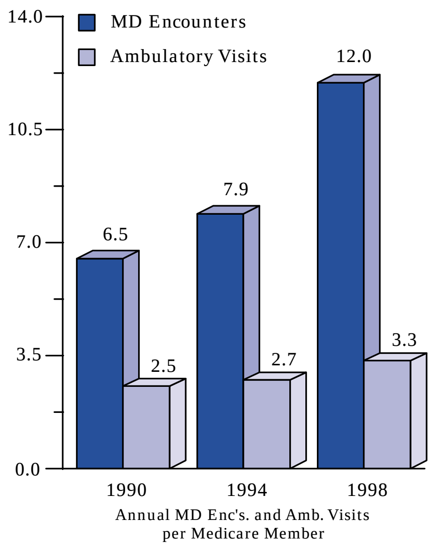
HMOs deliver dramatic changes in compensation, utilization rates

Between 1994 and 1998, the average number of ambulatory visits rose for non-Medicare, Medicare and Medicaid members. Similarly, the average number of physician encounters for non-Medicare HMO members increased slightly between 1986 (3.7 visits) and 1998 (3.9). By comparison, the average number of physician encounters for Medicare HMO members nearly doubled between 1990 (6.5 visits) and 1998 (12.0 visits), while physician encounters for Medicaid HMO members increased to 4.3 visits in 1998 from 3.7 visits in 1994.

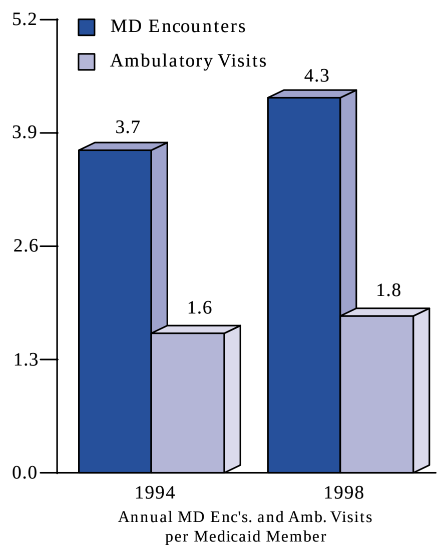
AVERAGE PHYSICIAN ENCOUNTERS AND AMBULATORY VISITS PMPY*



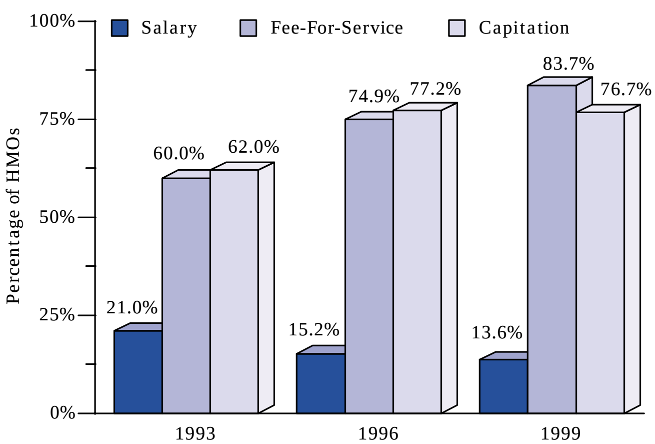
AVERAGE PHYSICIAN ENCOUNTERS AND AMBULATORY VISITS PMPY*



AVERAGE PHYSICIAN ENCOUNTERS AND AMBULATORY VISITS PMPY*



METHODS OF PHYSICIAN REIMBURSEMENT USED BY HMOs



NOTE: Ambulatory visits differ from physician encounters. Ambulatory visits are visits by an HMO member to an HMO clinic or physician's office when a physician is not seen, usually for tests, prescription refills, injections, immunizations, etc. Physician encounters are self-explanatory. The two pieces of data added together equal total encounters.

Data source: SMG Marketing Group Inc. © 2000

AVERAGE PHYSICIAN ENCOUNTERS AND AMBULATORY VISITS PER MEMBER PER YEAR*

	Avg. Physician Encounters per Member			Avg. Ambulatory Visits per Member		
	Non-Medicare	Medicare	Medicaid	Non-Medicare	Medicare	Medicaid
1986	3.7**	—	—	3.7**	—	—
1990	3.3	6.5	—	1.6	2.5	—
1994	3.6	7.9	3.7	1.7	2.7	1.6
1998	3.9	12.0	4.3	2.0	3.3	1.8

* All HMO utilization data exclude well baby, neonatal ICU and psychiatric patients.

** Data include Medicare and commercial (blended).

HMOs bring huge drops in hospital admissions, inpatient days, ALOS

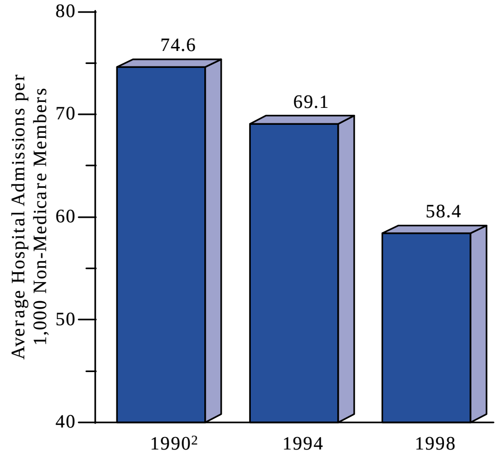
Hospital admissions per 1,000 non-Medicare HMO members dropped 21.7% between 1990 (74.6) and 1998 (58.4). By comparison, the hospital admissions rate per 1,000 Medicare members was 262.9 in 1998, an increase of 10.6% from the 237.6 reported in 1994.

Meanwhile, the average length of stay (ALOS) for non-Medicare members fell 26.0%, to 3.7 days in 1998 from an estimated 5.0 days in 1986. ALOS per hospital admission in 1998 was shortest for Medicaid recipients, at 3.5 days, down from 3.6 days in 1994.

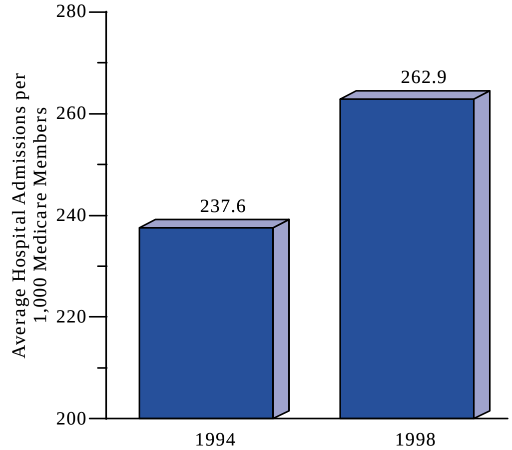
HOSPITAL ADMISSIONS, HOSPITAL DAYS AND AVERAGE LENGTH OF STAY[1]

	Hospital Admissions/1,000			Hospital Days/1,000			Average Length of Stay		
	Non-Medicare	Medicare	Medicaid	Non-Medicare	Medicare	Medicaid	Non-Medicare	Medicare	Medicaid
1986	—	—	—	388.3[2]	—	—	5.0[2, 3]	—	—
1990	74.6[2]	—	—	339.4	1,628.0	—	4.7[2]	—	—
1994	69.1	237.6	—	277.4	1,682.1	420.0	4.0	6.5	3.6
1998	58.4	262.9	126.8	210.5	1,382.5	402.0	3.7	5.6	3.5

HOSPITAL ADMISSIONS PER 1,000 HMO MEMBERS[1]



HOSPITAL ADMISSIONS PER 1,000 HMO MEMBERS[1]



[1] All HMO utilization data exclude well baby, neonatal ICU and psychiatric patients.

[2] Non-Medicare rate includes Medicare and Medicaid.

[3] Estimated.

In California, a bellwether state for the health care industry because of the dominance of managed care organizations and the high penetration rate of HMOs, the average number of hospital days per 1,000 HMO members dropped 55.4% in the 12-year period from 1986 (314.8 days) to 1998 (140.5 days).

CALIFORNIA HOSPITAL DAYS PER 1,000 HMO MEMBERS[1]

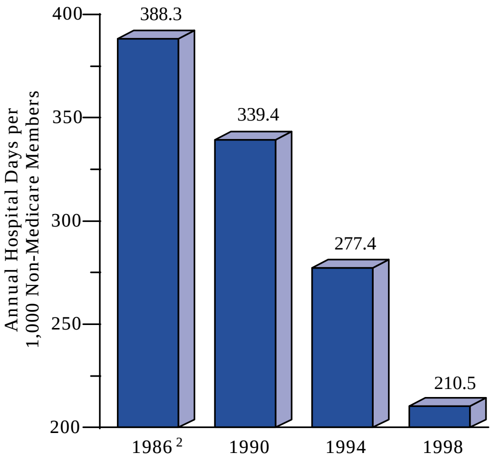
1986	314.8
1990	249.7
1994	206.3
1998	140.5

Data source: SMG Marketing Group Inc. © 2000

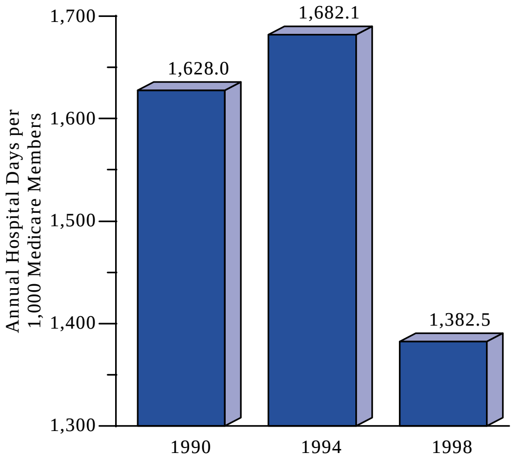
HMO effect on hospitalization rates over 14 years is significant

The average number of hospital days per 1,000 commercial (non-Medicare) HMO members declined 45.8% between 1986 (388.3 days) and 1998 (210.5 days), by far the largest percentage drop of the three types of members profiled. The number of hospital days per 1,000 Medicare members also decreased, by 15.1% between 1990 (1,628.0 days) and 1998 (1,382.5 days). By comparison, average hospital days per 1,000 Medicaid recipients enrolled in HMOs dipped 4.3% between 1994 (420.0 days) and 1998 (402.0 days).

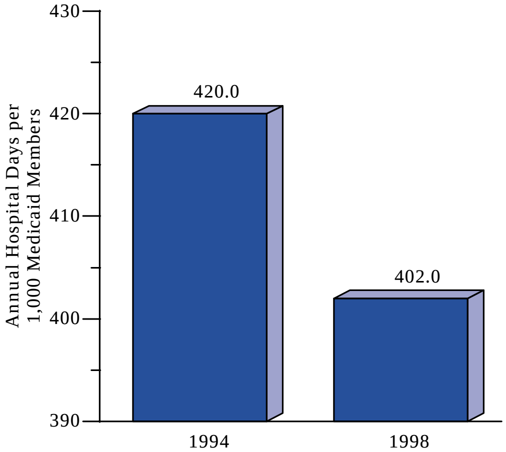
HOSPITAL DAYS PER 1,000 COMMERCIAL MEMBERS[1]



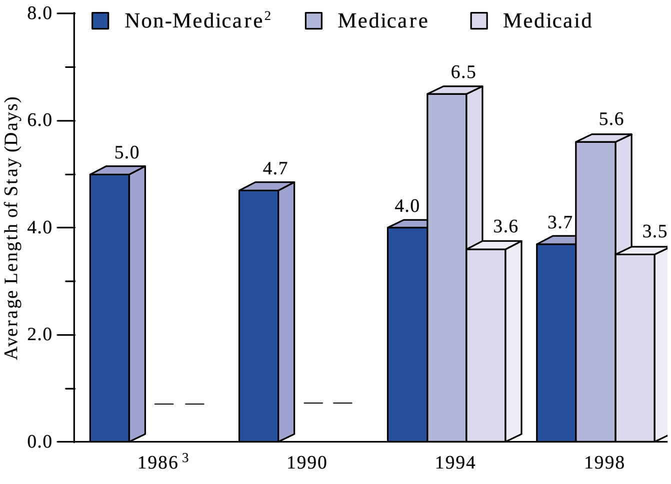
HOSPITAL DAYS PER 1,000 MEDICARE MEMBERS[1]



HOSPITAL DAYS PER 1,000 MEDICAID MEMBERS[1]



ALOS (DAYS) PER HMO MEMBER[1]



Data source: SMG Marketing Group Inc. © 2000

[1] All HMO utilization data exclude well baby, neonatal ICU and psychiatric patients.

[2] Non-Medicare rate includes Medicare and Medicaid for 1986 & 1990 only.

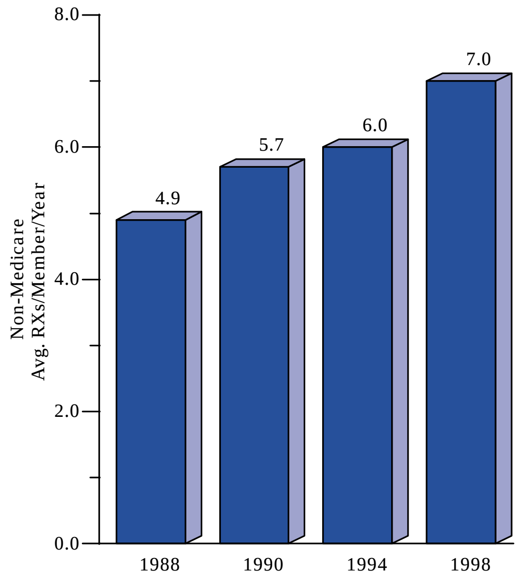
Major increase is seen in use of pharmaceuticals over course of 10 years

The average number of prescriptions per commercial (non-Medicare) HMO member per year (PMPY) increased 42.9% in the 10-year period from 1988 (4.9) to 1998 (7.0). Among Medicare HMO members, by comparison, the average rose only 3.6% PMPY between 1994 (16.5) and 1998 (17.1). The average number of prescriptions was lowest in 1998 among Medicaid HMO members, at 8.9 per member. Meanwhile, the average ingredient cost per prescription for commercial HMO members was $28.20 in 1998, up from $11.50 in 1988.

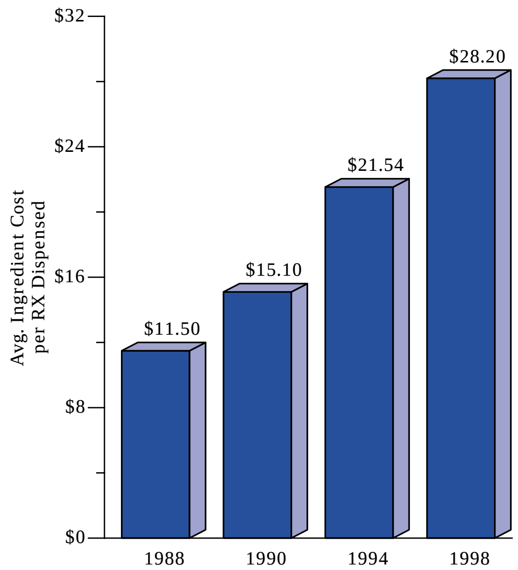
PHARMACY UTILIZATION

	Prescriptions Dispensed per Member			Average Ingredient Cost per Prescription*			HMO Drug Costs as a % of Total Expenses		
	Non-Medicare	Medicare	Medicaid	Non-Medicare	Medicare	Medicaid	Non-Medicare	Medicare	Medicaid
1988	4.9	—	—	$11.50	—	—	10.0%	—	—
1990	5.7	—	—	15.10	—	—	9.0	—	—
1994	6.0	16.5	—	21.54	—	—	10.4	9.5%	—
1998	7.0	17.1	8.9	28.20	—	—	13.6	13.4	—

PRESCRIPTIONS DISPENSED PER COMMERCIAL MEMBER



AVERAGE HMO INGREDIENT COST*



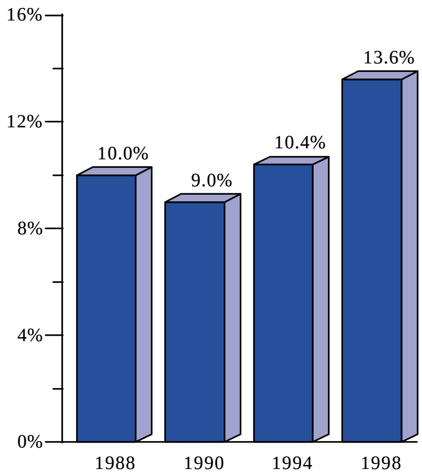
* Does not include administrative, prescription or dispensing fees.

Data source: SMG Marketing Group Inc. © 2000

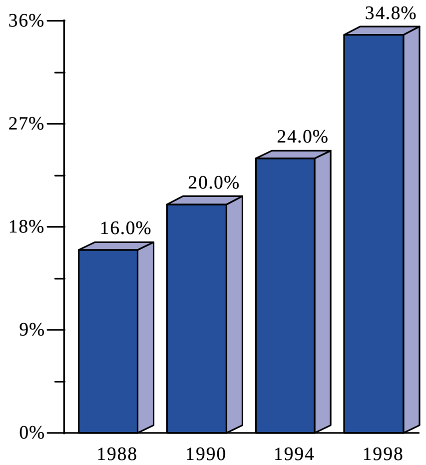
HMOs assign larger share of premiums to outpatient pharmacy benefits

Monthly HMO premiums for outpatient pharmacy benefits were $16.98 for individuals in 1998, more than double the $7.40 reported in 1988. Similarly, family premiums rose to $42.49 a month in 1998, up 130.0% from $18.47 in 1998. In that period, the share of HMOs that used mail-service pharmacies increased to 83.0% in 1998 from 9.0% in 1990, while those with in-house pharmacies grew to 34.8% from 16.0%. Pharmaceutical expenditures accounted for 13.6% of total HMO operating expenses in 1998, up notably from 10.0% in 1988.

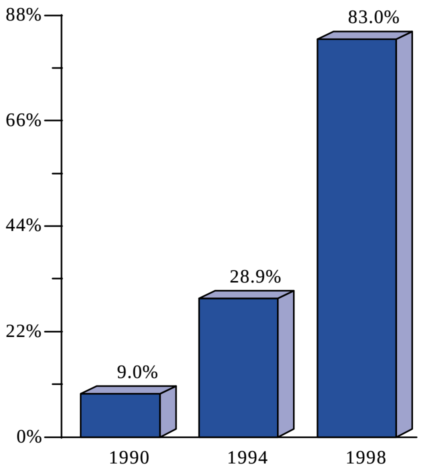
DRUG COSTS AS A % OF HMO OPERATING EXPENSES



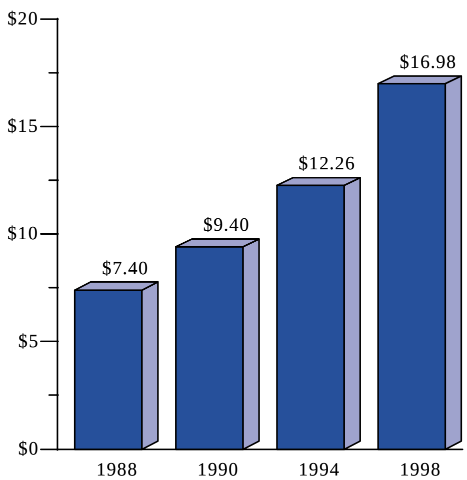
% OF HMOs WITH IN-HOUSE PHARMACIES



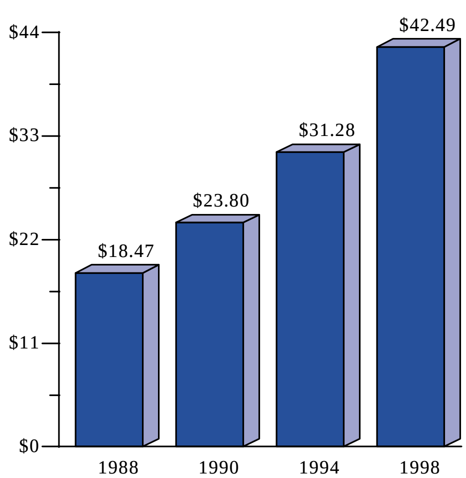
HMOs USING MAIL-SERVICE PHARMACIES



PREMIUMS PER MEMBER PER MONTH FOR OUTPATIENT PHARMACY BENEFITS: INDIVIDUAL PREMIUMS



PREMIUMS PER MEMBER PER MONTH FOR OUTPATIENT PHARMACY BENEFITS: FAMILY PREMIUMS

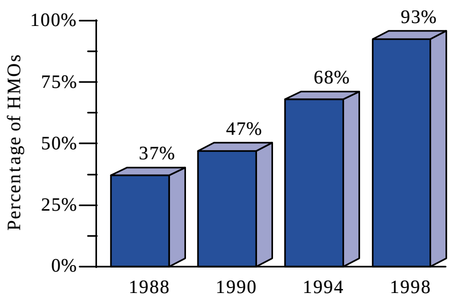


Data source: SMG Marketing Group Inc. © 2000

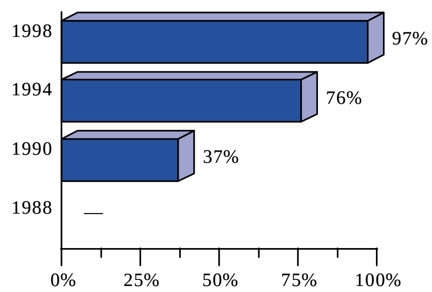
Use of formularies, reviews rises as HMOs fine-tune internal controls

Almost all HMO plans (92%) used drug formularies in 1998, and of those with formularies, 48% had closed (restricted) formularies. Likewise, almost all HMOs used drug utilization reviews (DUR) by 1998 (93%), and almost all members (97%) were in plans having DUR. HMO plans by 1998 were less inclined to let physicians prescribe outside their formularies (60% vs. 83% in 1988), and by 1998 over 88% of HMOs were using pharmacy benefit managers. Nearly all prescriptions (91%) were filled with formulary drugs.

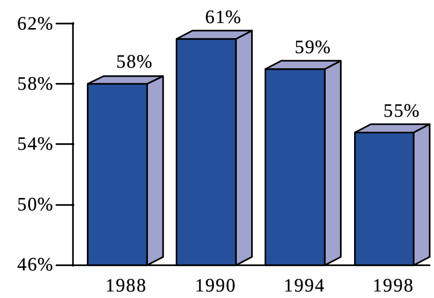
% OF HMOs HAVING DRUG UTILIZATION REVIEW (DUR)



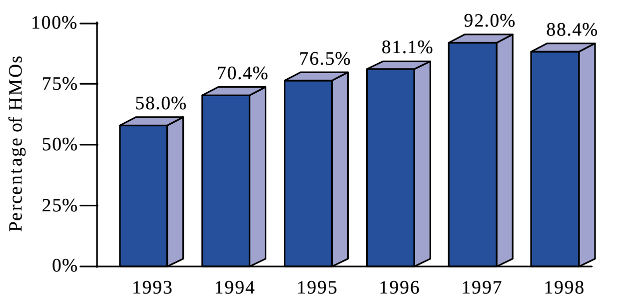
% OF HMO MEMBERS ENROLLED IN PLANS WITH DUR PROGRAMS



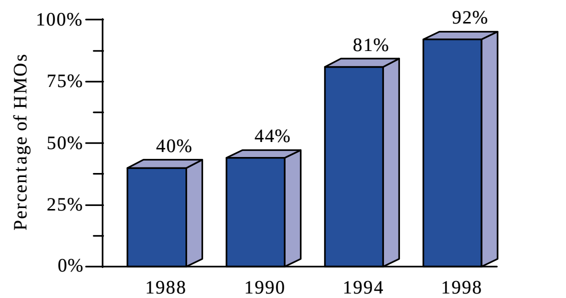
% OF PRESCRIPTIONS FILLED WITH BRAND NAME DRUGS (AVERAGE)



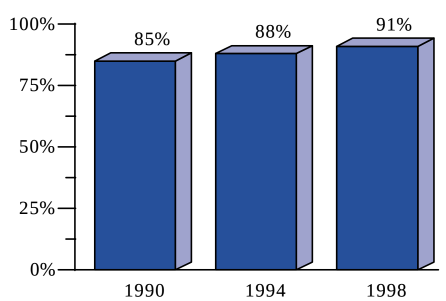
% OF HMOs CONTRACTING WITH PHARMACY BFT. MGRS.



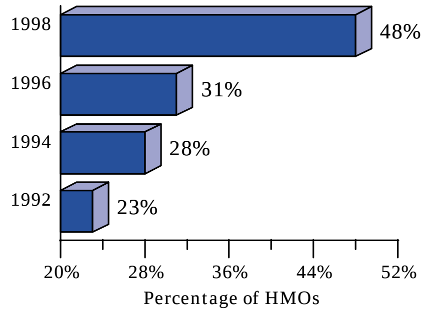
% OF HMOs USING DRUG FORMULARIES



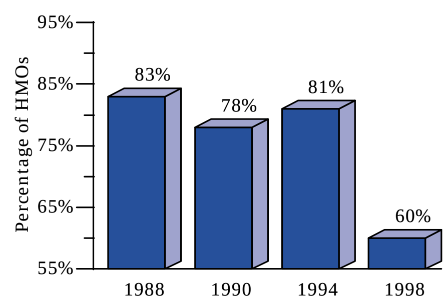
% OF PRESCRIPTIONS FILLED USING FORMULARY DRUGS



% OF HMOs USING CLOSED FORMULARIES



% OF HMOs ALLOWING PHYSICIANS TO OVERRIDE FORMULARY

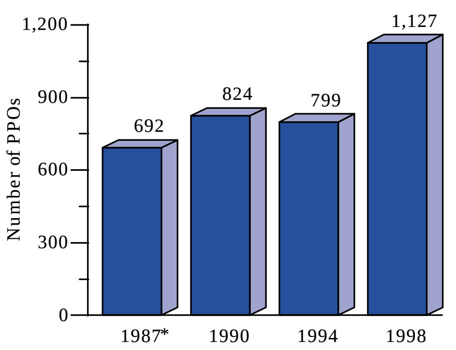


Data source: SMG Marketing Group Inc. © 2000

PPOs' rapid growth during '80s and '90s refutes early predictions

The number of PPO eligible employees more than tripled to 98.3 million in 1998 from 28.5 million in 1987, while the number of operating PPOs increased to 1,127 from 692 in 1987. The total number of enrollees covered by PPOs offering an exclusive provider organization (EPO) option declined to 2.5 million in 1998 from 2.7 million in 1990, while the percentage of PPOs offering an EPO option fell to 22% from 42%. Nearly 35 million eligibles were served by plans operated by PPO chains in 1998, up from 7.8 million in 1987.

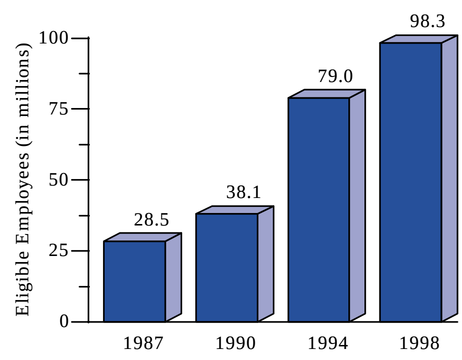
NUMBER OF OPERATING PPOs



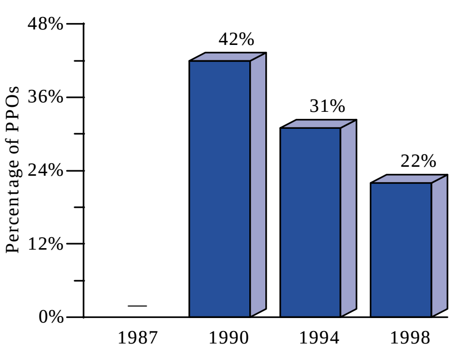
TOTAL PPO ELIGIBLE EMPLOYEES

1987*	28,500,000
1990	38,116,742
1994	79,042,463
1998	98,291,383

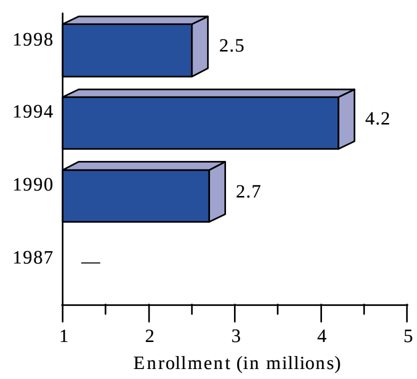
TOTAL PPO ELIGIBLE EMPLOYEES



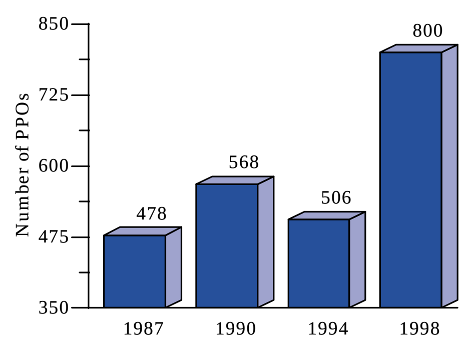
% OF PPOs OFFERING EPOs



NUMBER OF EPO ENROLLEES



NUMBER OF PPOs IN PPO CHAINS



CORPORATE PPO CHAINS REPORTING

	Number of Chains	Number of PPOs	Eligible Employees*	% of Total PPO Eligibles
1987	24	478	7,822,035	27.4%*
1990	35	568	22,346,054	58.6
1994	25	506	24,207,358	30.6
1998	17	800	34,900,917	35.5

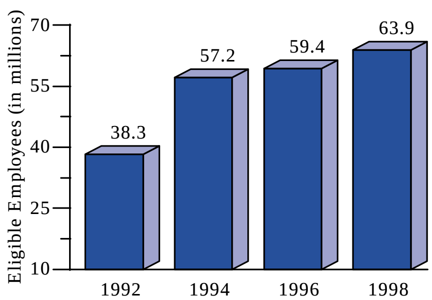
Data source: SMG Marketing Group Inc. © 2000

* Estimated.

Workers' compensation PPOs gain major strength among employers

More than 63.9 million workers were covered by workers' compensation specialty PPO networks in 1998, up significantly from 38.3 million in 1992. Similarly, the number of employer groups participating in workers' compensation PPOs increased nearly 150% during this period, to 145,426 in 1998 from 58,682 in 1992. In 1998, 49% of all PPOs offered workers' compensation services to members, an increase from 20% in 1989. The share of plans with chiropractic care services rose to 87% in 1998 from 25% in 1989.

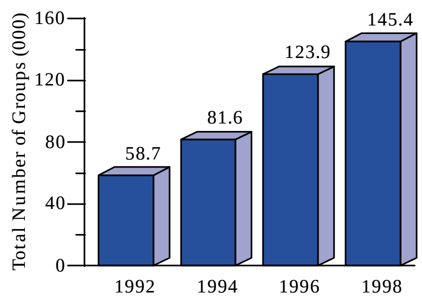
TOTAL EMPLOYEES ELIGIBLE FOR WORKERS' COMPENSATION PPOs



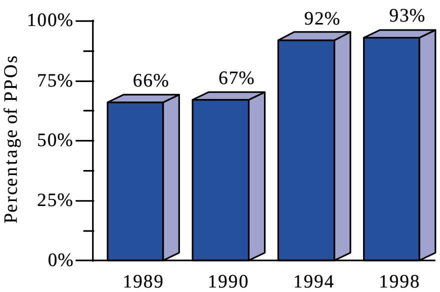
EMPLOYEES ELIGIBLE FOR/ GROUPS IN WORKERS' COMP. PPOs

	Empls. Eligible for WC PPOs	Groups in WC PPOs
1992	38,256,244	58,682
1994	57,152,497	81,555
1996	59,376,586	123,864
1998	63,913,005	145,426

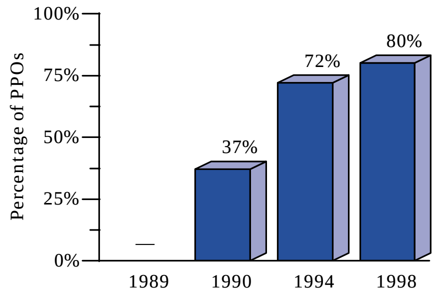
EMPLOYER GROUPS COVERED BY WORKERS' COMP. PPOs



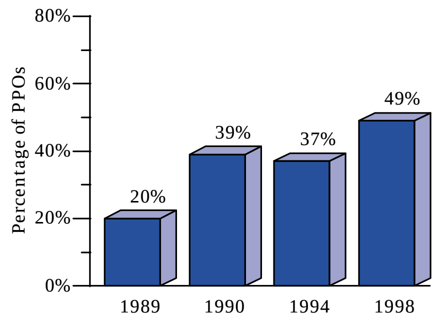
% OF PPOs WITH PSYCHIATRIC/ MENTAL HEALTH SERVICES



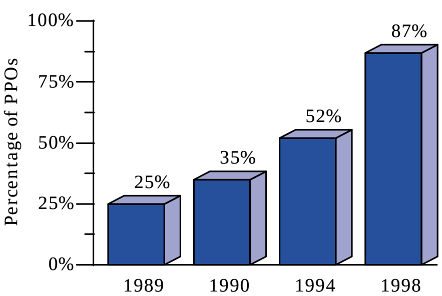
% OF PPOs WITH MANAGED PHARMACY BENEFITS SERVICES



% OF PPOs WITH WORKERS' COMPENSATION SERVICES



% OF PPOs WITH CHIROPRACTIC CARE SERVICES



SERVICES PROVIDED BY PPOs

	Psy./Mental Hlth.	Mgd. Rx Benefits	Workers' Comp.	Wellness	Chiropractic
1989	66.0%	—	20.0%	—	25.0%
1990	67.0	37.0%	38.0	31.0%*	35.0
1994	92.0	72.0	57.0	27.0	52.0
1998	92.9	80.0	49.3	69.9	87.0

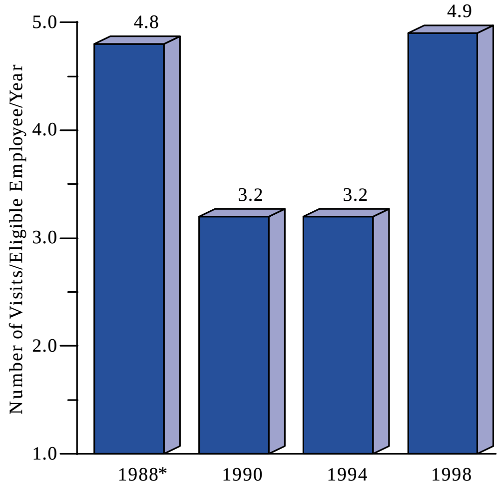
* 1992.

Data source: SMG Marketing Group Inc. © 2000

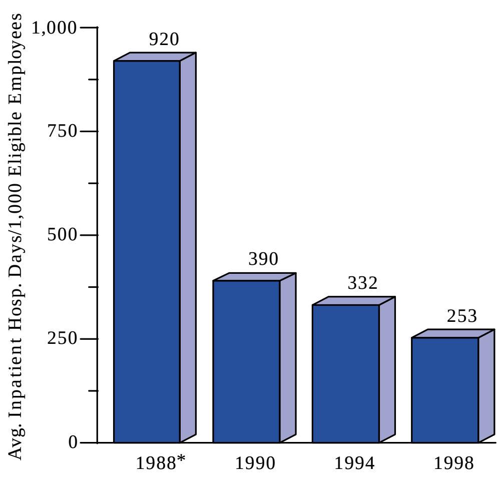
PPO inpatient hospital days per 1,000 eligibles drop 35% in eight years

The average number of inpatient days per 1,000 eligible employees dropped 35.1% at PPOs in the eight-year period between 1990 (390 days) and 1998 (253 days). Conversely, the average number of physician visits per eligible worker was 4.9 in 1998, up 53.1% from 3.2 in 1990. The average hospital stay for psychiatric/substance abuse admissions among PPOs was cut almost in half, to 7.7 days in 1998 from 15.0 days in 1988, while the average hospital stay by PPO members fell in this period to 4.0 days from 5.2 days.

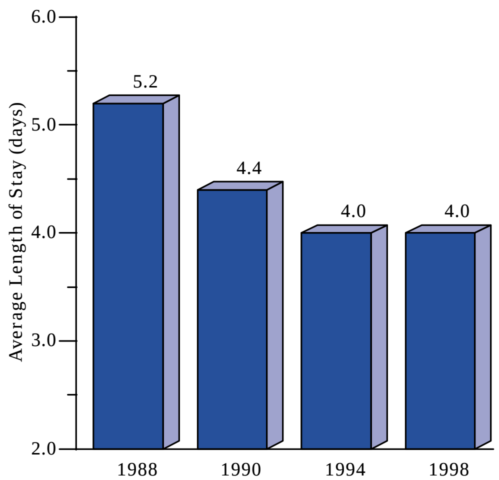
AVERAGE PHYSICIAN VISITS PER ELIGIBLE EMPLOYEE PER YEAR



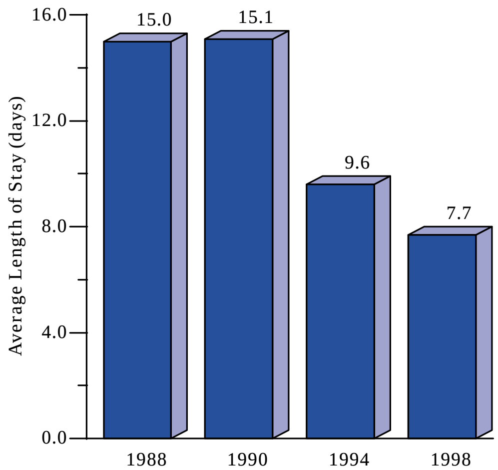
AVERAGE INPATIENT HOSPITAL DAYS PER 1,000 ELIGIBLE EMPLOYEES



AVERAGE LENGTH OF STAY PER MEDICAL/SURGICAL HOSPITALIZATION**



AVERAGE LENGTH OF STAY PER PSYCH./SUBSTANCE ABUSE HOSPITALIZATION



Data source: SMG Marketing Group Inc. © 2000

* Data include Medicare and commercial (blended).

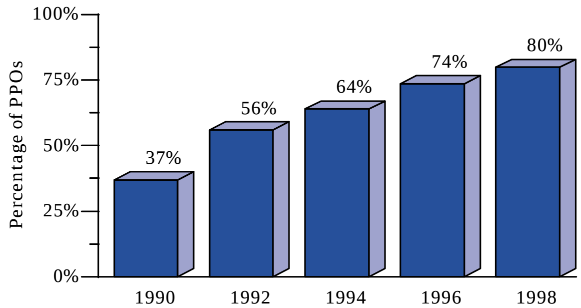
** Excluding psychiatry.

Four out of five PPOs include managed pharmacy programs by 1998

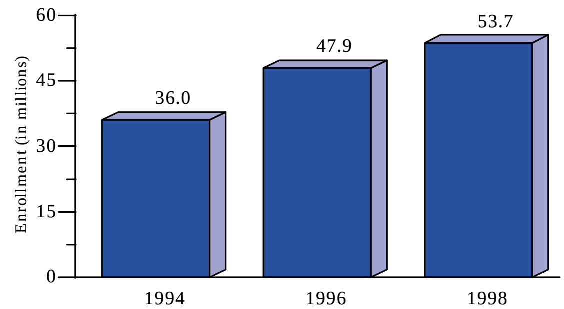
Fully 80% of all PPOs included a managed pharmacy program by 1998, up significantly from 37% in 1990. The number of eligible employees in PPOs who were covered by PPO managed pharmacy programs increased to 53.7 million from 36.0 million in 1990.

Although 77% of full-service PPOs offered carve-out pharmacy programs in 1998, that percentage declined slightly from 79% in 1992. Meanwhile, the share of PPOs that used pharmacy benefit managers (PBMs) climbed to 73% in 1998 from 40% in 1994.

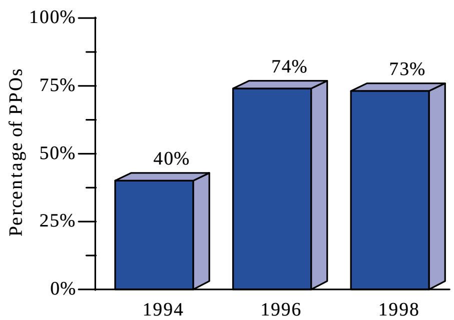
PPOs WITH A MANAGED PHARMACY PROGRAM



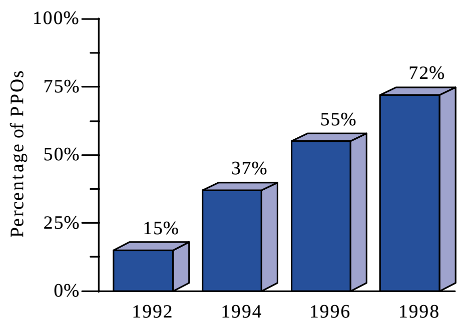
NUMBER OF ELIGIBLE EMPLOYEES IN MANAGED PHARMACY PROGRAMS



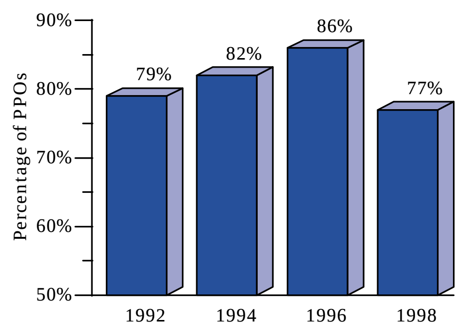
% OF PPOs THAT USE A PBM



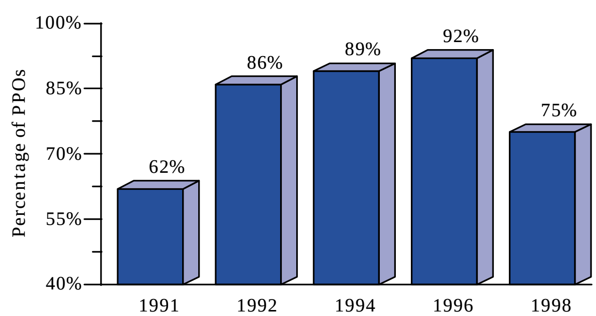
PPOs WITH FORMULARIES



CARVE-OUT PROGRAM*



SEPARATE CHARGE FOR MANAGED PHARMACY CARVE-OUT PROGRAM



PPOs WITH MANAGED PHARMACY PROGRAM

	Carve-out Program	Separate Charge for Program
1991	74.0%	62.0%
1992	79.0	86.0
1994	82.0	89.0
1996	85.5	91.9
1998	77.0	75.3

* Carve-out programs offer specialty services, usually at reduced rates, to payers.

Data source: SMG Marketing Group Inc. © 2000

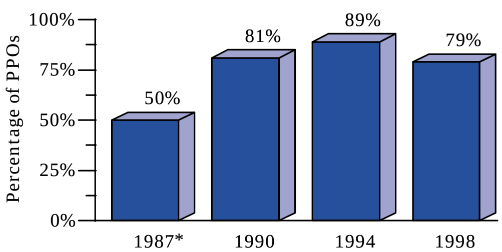
PPOs pay doctors mostly using fee caps, discounts during ’80s and ’90s

Although the share of PPOs that compensated physicians based on a maximum allowable fee, or fee cap, declined in recent years, to 79.0% in 1998, that figure remained significantly higher than the 50.2% reported in 1987. About three out of 10 plans, or 30.7%, used a discount from billed charges to pay physicians in 1998, down slightly from 31.8% in 1987. Just over four-fifths of PPOs paid hospitals on a per-diem basis in 1998, up from 35.7% in 1987; the share of PPOs using discounted charges to pay hospitals increased to 79.0% from 42.0%.

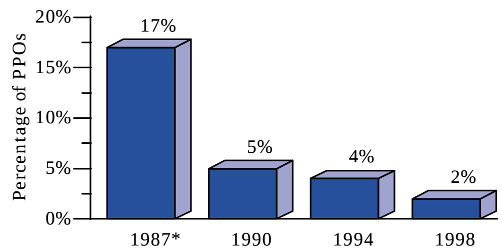
PERCENTAGE OF PPOs PAYING PHYSICIANS BY VARIOUS METHODS

	Fee Cap	Capitation	Pkg. Price/Episode	Disc. Charges	Combination
1987*	50.2%	—	17.3%	31.8%	0.1%
1990	81.0	—	5.0	34.0	19.0
1994	89.0	3.0%	4.0	26.0	25.0
1998	79.0	2.4	1.8	30.7	18.0

PPOs PAYING PHYSICIANS BY FEE CAP



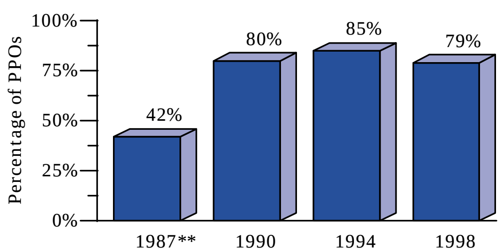
PPOs PAYING PHYSICIANS BY PACKAGE PRICE



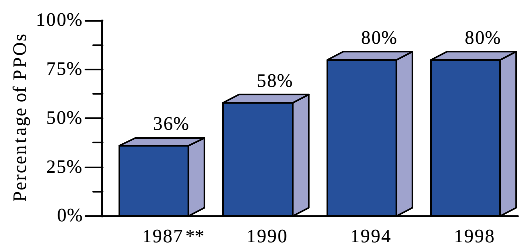
PERCENTAGE OF PPOs PAYING HOSPITALS BY VARIOUS METHODS

	Disc. Charges	Per Diem	Usual/Cust. Chgs.	DRG-based	Combination
1987**	42.0%	35.7%	6.7%	12.1%	3.7%
1990	80.0	58.0	7.0	15.0	57.0
1994	85.0	80.0	4.0	26.0	77.0
1998	79.0	80.2	2.9	23.1	77.5

PPOs PAYING HOSPITALS BY DISCOUNTED CHARGES



PPOs PAYING HOSPITALS BY PER DIEM



Data source: SMG Marketing Group Inc. © 2000

* Based on 255 reporting PPOs.
** Based on 356 reporting PPOs.

Hospitals become systemized during 1990s to better manage their costs

Many hospitals became part of multihospital systems during the 1980s and 1990s to accomplish the goals of sharing management, spreading their overhead and purchasing equipment and supplies jointly. By 1998, 41% of all nonfederal, short-term acute care institutions were in an MHS of one kind or another. Despite the success of MHSs in strengthening management and joint purchasing efficiencies, hospital costs have been driven higher by initial costs associated with advanced technology, making overall savings elusive.

NUMBER OF HOSPITALS, 1994–1998

	All Hospitals in MHSs	Non-MHS Hospitals
1994	1,975	3,522
1996	2,194	3,194
1998	2,150	3,137

MULTIHOSPITAL SYSTEM AND HOSPITAL OPERATING EXPENSES PER HOSPITAL

	Total Costs/Occupied Bed	
	All Hospitals in MHSs	All Non-MHS Hospitals
1992	$470,529	$485,345
1994	622,571	490,989
1996	638,579	598,650
1998	656,398	667,931

MULTIHOSPITAL SYSTEM AND HOSPITAL OPERATING EXPENSES PER HOSPITAL

	Total Costs/Admission	
	All Hospitals in MHSs	All Non-MHS Hospitals
1992	$7,986	$9,477
1994	12,232	9,551
1996	10,370	9,212
1998	11,441	10,078

MULTIHOSPITAL SYSTEM AND HOSPITAL OPERATING EXPENSES PER HOSPITAL

	Total Costs/FTE	
	All Hospitals in MHSs	All Non-MHS Hospitals
1992	$60,173	$63,069
1994	83,570	65,483
1996	90,103	73,083
1998	92,821	75,898

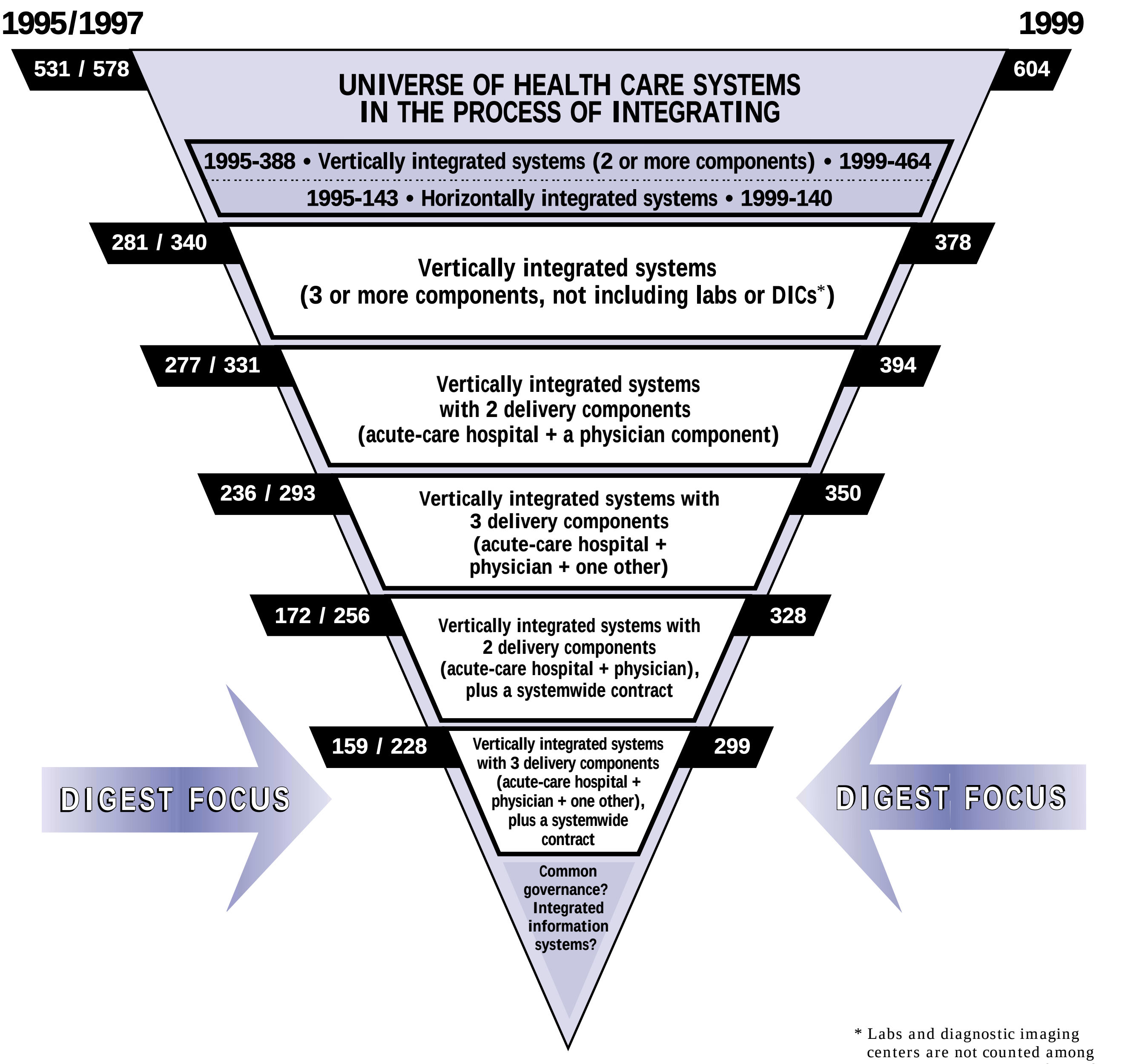
MULTIHOSPITAL SYSTEM AND HOSPITAL OPERATING EXPENSES PER HOSPITAL

	All Hospitals in MHSs		All Non-MHS Hospitals	
	Labor Costs/Patient-Day	Salary Costs/FTE	Labor Costs/Patient-Day	Salary Costs/FTE
1992	$685	$25,259	$798	$27,903
1994	849	35,006	700	28,919
1996	854	31,631	835	29,473
1998	916	32,201	954	31,237

Data source: SMG Marketing Group Inc. © 2000

More than 600 hospital systems move toward integration by 1999

System integration became a popular idea among hospitals in the 1990s, offering a potential solution to the fragmented network of patient care sites. By 1999, 604 hospitals and systems were becoming integrated, with the amount of true vertical integration increasing each year. Of these, 464 (76.8%) were vertically integrated. The remaining 140 were horizontally integrated, with only one component of care but with several facilities in a single market or region. Just 299 of these systems were considered highly integrated.



* Labs and diagnostic imaging centers are not counted among the major components of care for any of the system categories shown.

Data source: SMG Marketing Group Inc. © 2000

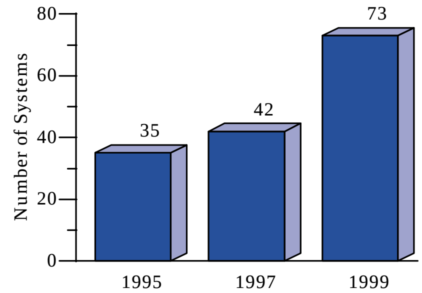
Number of systems considered highly integrated nearly doubles by 1999

The number of systems defined by this Digest as the most highly integrated climbed 88.1% between 1995 (159) and 1999 (299), while the total number of systems in the process of integrating rose 13.7%, to 604 from 531. In 1999, the most highly integrated systems accounted for 49.5% of all systems, up from 29.9% of all systems in 1995. The number of these having four or more components of care increased 82.3% by 1999, to 226 from 124 in 1995, and accounted for just over three-fourths (75.6%) of all highly integrated systems.

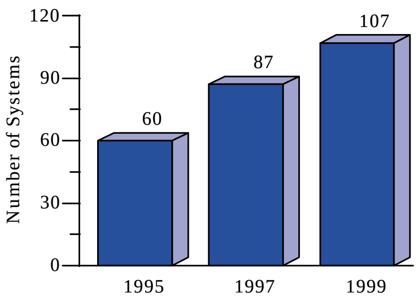
UNIVERSE OF HEALTH CARE SYSTEMS IN THE PROCESS OF INTEGRATING

	Overall # of IHSs	Total # of Highly Int. Systems	Number of Systems, by Delivery Components per System			
			6+ Comp.	5 Comp.	4 Comp.	3 Comp.
1995	531	159	17	47	60	35
1997	578	228	29	70	87	42
1999	604	299	38	81	107	73

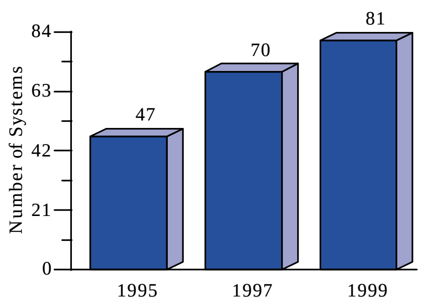
NUMBER OF SYSTEMS BY DELIVERY COMPONENTS PER SYSTEM: 3 COMPONENTS



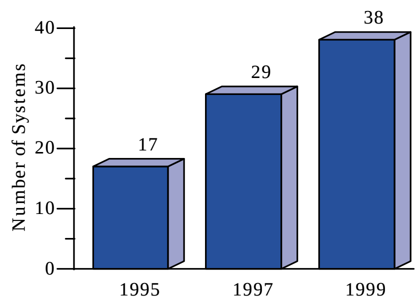
NUMBER OF SYSTEMS BY DELIVERY COMPONENTS PER SYSTEM: 4 COMPONENTS



NUMBER OF SYSTEMS BY DELIVERY COMPONENTS PER SYSTEM: 5 COMPONENTS



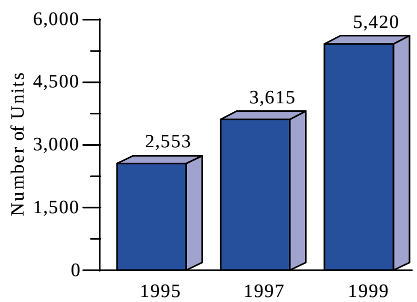
NUMBER OF SYSTEMS BY DELIVERY COMPONENTS PER SYSTEM: 6+ COMPONENTS



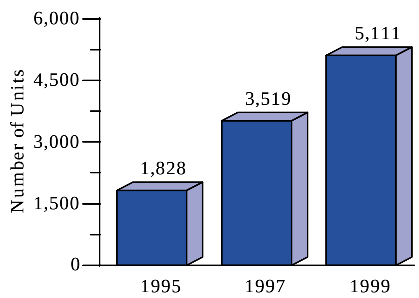
DISTRIBUTION OF SYSTEMS, BY REGION

	Provider Units per System:		
REGION	**1995**	**1997**	**1999**
West	40	52	45
Southwest	28	32	42
Midwest	39	57	90
Northeast	11	28	44
Southeast	41	59	78
TOTAL	**159**	**228**	**299**

NUMBER OF PROVIDER UNITS IN INTEGRATED HEALTH SYSTEMS: CONTRACTED UNITS



NUMBER OF PROVIDER UNITS IN INTEGRATED HEALTH SYSTEMS: OWNED UNITS

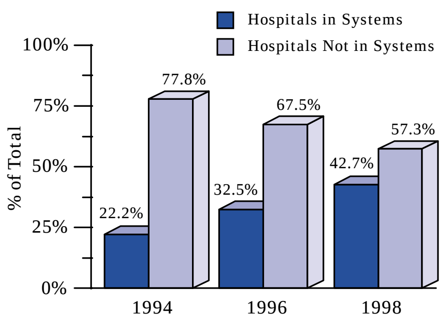


Data source: SMG Marketing Group Inc. © 2000

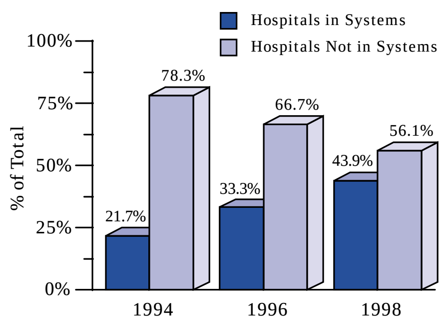
Hospitals in highly integrated systems increase their market shares

The market share for integrated system hospitals increased substantially between year-end 1994 and year-end 1998 in each of five key categories. System hospital shares of inpatient surgeries rose 22.2 percentage points in this four-year period (to 43.9% from 21.7%), while their share of outpatient surgeries grew 20.5 percentage points (to 42.7% from 22.2%). Between 1994 and 1998, integrated system hospitals also gained market share in the areas of admissions, inpatient days per facility and outpatient visits.

TOTAL OUTPATIENT SURGERIES*



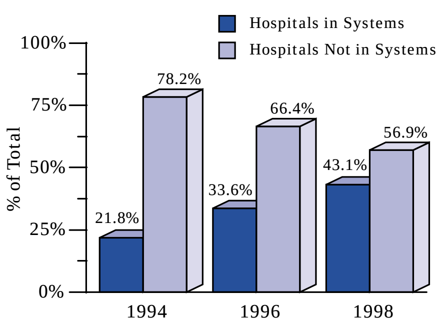
TOTAL INPATIENT SURGERIES*



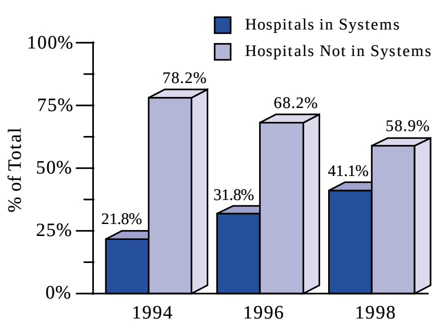
AVERAGE OCCUPANCY*

	Hospitals in Systems	Hospitals Not in Systems	All Systems Hospitals
1994	52.1%	49.4%	49.8%
1996	51.5	46.3	47.5
1998	49.6	44.8	46.3

TOTAL FACILITY ADMISSIONS*



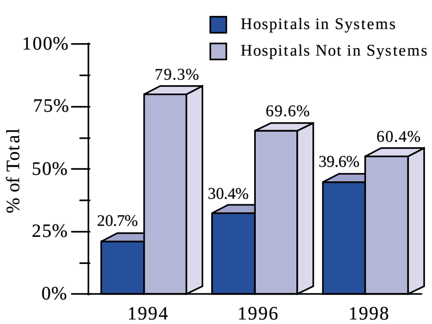
TOTAL FACILITY PATIENT-DAYS*



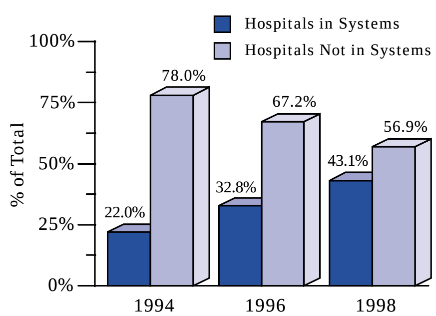
AVERAGE LENGTH OF STAY (DAYS)*

	Hospitals in Systems	Hospitals Not in Systems	All Systems Hospitals
1994	5.5	6.1	6.0
1996	5.3	5.4	5.4
1998	4.9	5.2	5.1

TOTAL OUTPATIENT VISITS*



AVERAGE NUMBER OF SHORT-TERM STAFFED BEDS PER FACILITY*



* Hospital data are based on all short-term, acute-care, nonfederal hospitals. Average occupancy and average length of stay represent only the acute-care portion of the hospitals' occupancy. Utilization data are effective as of 1998.

Data source: SMG Marketing Group Inc. © 2000

HMOs within systems take lead in treating patients with pharmaceuticals

The average number of prescriptions per member per year (PMPY) increased more, by percentage, between 1994 and 1998 for non-Medicare members in system HMOs (up 22.0%, to 7.2 from 5.9) than for such members in nonsystem HMOs (up 15.0%, to 6.9 from 6.0). Similarly, over this same four-year period the average number of prescriptions PMPY grew 14.7% (to 20.3 from 17.7) for Medicare members in system-affiliated plans, compared with just 5.5% (to 17.2 from 16.3) for such members in nonsystem plans.

NUMBER OF PRESCRIPTIONS PER HMO MEMBER*

PHARMACY MEASURE	Average for HMOs in Systems		Average for HMOs Not in Systems		Average for All HMOs	
	Non-Medicare	Medicare	Non-Medicare	Medicare	Non-Medicare	Medicare
1994	5.9	17.7	6.0	16.3	6.0	16.5
1996	6.2	17.6	6.8	14.3	6.7	14.7
1998	7.2	20.3	6.9	17.2	7.0	17.7

PERCENTAGE OF PRESCRIPTIONS FILLED WITH GENERIC VS. BRAND NAME DRUGS*

PHARMACY MEASURE	Average for HMOs in Systems		Average for HMOs Not in Systems		Average for All HMOs	
	Generic	Brand Name	Generic	Brand Name	Generic	Brand Name
1994	40.2%	59.8%	41.0%	59.0%	40.9%	59.1%
1996	47.0	53.0	43.5	56.5	44.0	56.0
1998	47.8	52.2	44.8	55.2	45.2	54.8

MONTHLY PHARMACY BENEFIT PREMIUM PER MEMBER VS. PER FAMILY*

PHARMACY MEASURE	Average for HMOs in Systems		Average for HMOs Not in Systems		Average for All HMOs	
	Per Member	Per Family	Per Member	Per Family	Per Member	Per Family
1994	$12.62	$26.13	$12.20	$32.16	$12.26	$31.28
1996	11.73	28.86	13.07	32.98	12.87	32.32
1998	17.26	42.52	16.94	42.48	16.98	42.49

* HMOs are considered to be in integrated health systems if they are part of a system by virtue of ownership or contractual arrangements. HMOs are not considered to be in integrated health systems if they hold only provider network contracts with systems. All data are as of December 31, 1998. Preoperational HMOs and HMOs operating with no members are excluded.

Data source: SMG Marketing Group Inc. © 2000

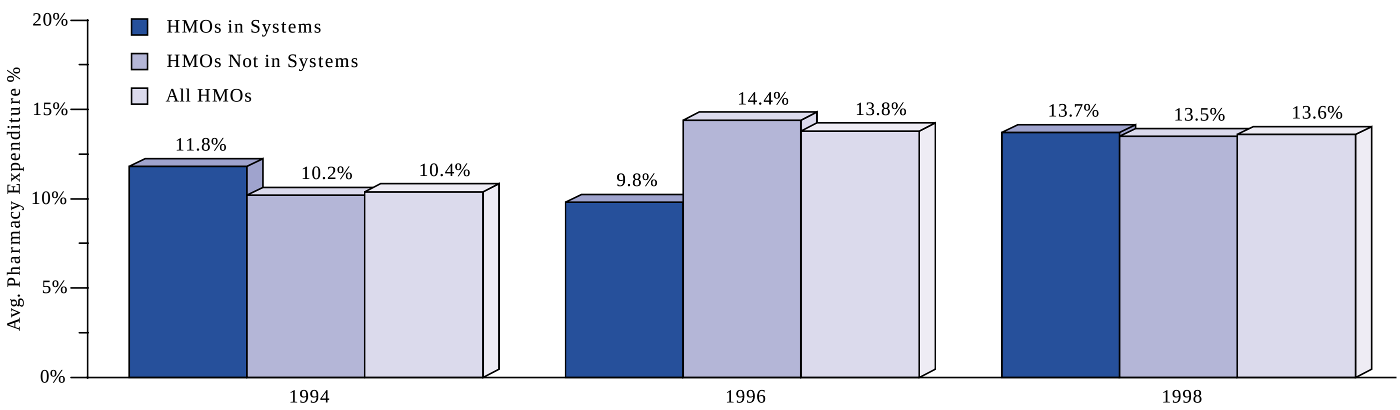
HMOs within integrated systems show preferences for open formularies

The percentage of HMOs that weren't part of integrated systems and using closed formularies rose 23.6 percentage points between 1994 (19.7%) and 1998 (43.3%). By comparison, the percentage of integrated system HMOs that used closed formularies increased 7.3 percentage points between 1994 (29.3%) and 1998 (36.6%). Pharmacy expenditures were 13.7% of total operating expenses at system HMOs in 1998, up from 11.8% in 1994, and 13.5% of operating costs at nonsystem HMOs in 1998, up from 10.2% in 1994.

USE OF OPEN VS. CLOSED FORMULARIES BY HMOs

	Percentage of HMOs in Systems		Percentage of HMOs Not in Systems		Percentage of All HMOs	
	Open	Closed	Open	Closed	Open	Closed
1994	50.0%	29.3%	61.1%	19.7%	59.8%	20.8%
1996	51.1	35.1	60.3	25.3	59.1	26.6
1998	56.3	36.6	48.4	43.3	49.3	42.5

HMO DRUG COSTS AS A PERCENTAGE OF OPERATING EXPENSES



INGREDIENT COST PER PRESCRIPTION

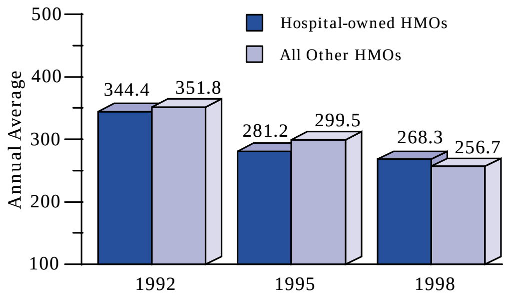
	Average for HMOs in Systems	Average for HMOs Not in Systems	Average for All HMOs
1994	$23.04	$21.31	$21.54
1996	24.17	24.32	24.30
1998	28.60	28.14	28.20

Data source: SMG Marketing Group Inc. © 2000

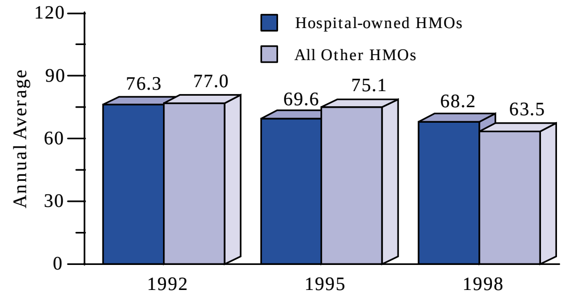
Hospital-owned HMO plans succeed in cutting inpatient utilization rates

Over the years, many HMO plans have been launched or purchased by hospitals. By 1999, 68 HMO plans were hospital-owned, up from 44 in 1991. The Digests have compared utilization results for these hospital-owned plans since 1992. Hospital days per 1,000 members dropped significantly from 1992 to 1998 at hospital-owned HMOs (22.1%), although by somewhat less than at all other plans (27.0%). Average length of stay (ALOS), however, declined 14% at hospital-owned HMOs compared with 11% at all other HMO plans.

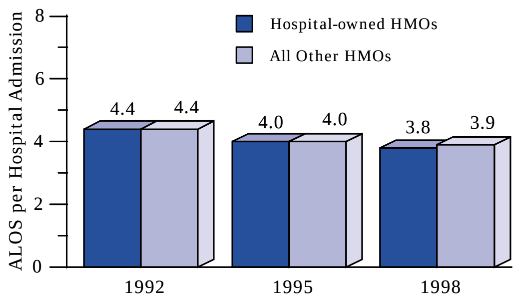
HOSPITAL DAYS PER 1,000 MEMBERS



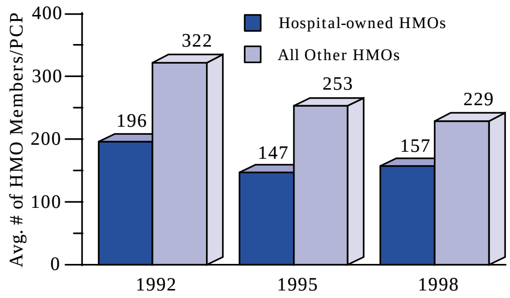
HOSPITAL ADMISSIONS PER 1,000 MEMBERS



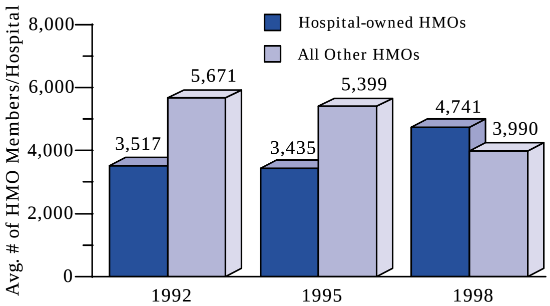
AVERAGE LENGTH OF STAY PER HOSPITAL ADMISSION



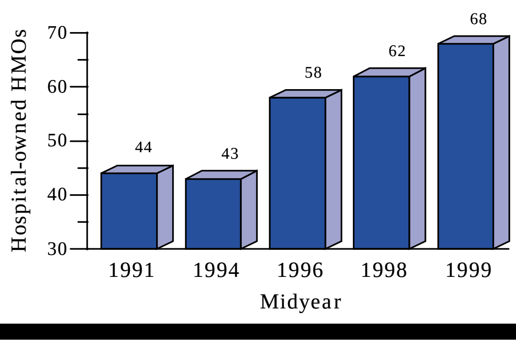
AVERAGE NUMBER OF HMO MEMBERS PER PCP



AVERAGE NUMBER OF HMO MEMBERS PER HOSPITAL



NUMBER OF HOSPITAL-OWNED HMOs

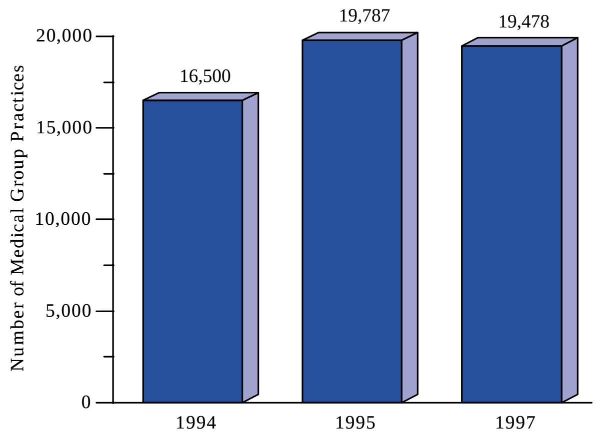


Data source: SMG Marketing Group Inc. © 2000

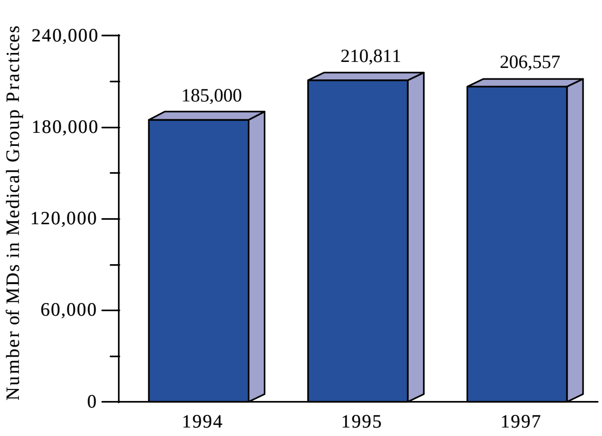
Medical groups grow in number and size during decade of the 1990s

The decade of the 1990s ushered in major changes in how physicians conducted their medical practices. They formed more groups, and the groups themselves combined to form larger groups. One way the Digests have tracked these changes is by publishing the AMA, MGMA and AGPA (now AMGA) statistics on membership and physician demographics. The AMA estimated that, in 1994, there were 185,000 physicians in 16,500 medical groups, but that, by 1997, an estimated 206,557 physicians were in 19,478 groups.

NUMBER OF AMERICAN MEDICAL ASSOCIATION MEDICAL GROUP PRACTICES[1]



NUMBER OF AMERICAN MEDICAL ASSOCIATION MEDICAL GROUP PRACTICE PHYSICIANS[1]



MGMA MEDICAL GROUP PRACTICES AND PHYSICIANS

SIZE (# FTE MDs)	# of Medical Group Practices				# of MDs in Medical Group Practices				% of Medical Group Practices			
	1992	1995	1997	1999	1992	1995	1997	1999[2]	1992	1995	1997	1999
10 or fewer	4,130	4,902	5,475	3,990	—	25,544	21,981	20,232	73.6%	71.0%	73.1%	55.4%
11–25	870	1,185	1,092	1,123	—	19,157	17,669	18,042	15.5	17.2	14.6	15.6
26–50	314	423	442	438	—	15,013	16,058	15,793	5.6	6.1	5.9	6.1
51 or more	298	396	482	497	—	84,852	126,266	131,087	5.3	5.8	6.4	6.9
Unknown/NA	—	2	0	1,156	—	0	0	0	0.0	0.0	0.0	16.0
TOTAL	**5,612**	**6,908**	**7,491**	**7,204**	**—**	**144,566**	**181,974**	**185,154**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Total Single Specialty[3]	**3,668**	**3,646**	**3,842**	**3,456**	**—**	**31,175**	**33,823**	**42,422**	**69.6%**	**52.8%**	**51.3%**	**48.0%**
Total Multispecialty	**1,605**	**1,611**	**1,469**	**1,717**	**—**	**88,271**	**98,063**	**111,123**	**30.4**	**23.3**	**19.6**	**23.8**
Unknown/NA	339	1,651	2,180	2,031	—	25,120	50,088	31,609	0.0	23.9	29.1	28.2
TOTAL	**5,612**	**6,908**	**7,491**	**7,204**	**—**	**144,566**	**181,974**	**185,154**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

1 American Medical Association data on national totals are the most recent available (early 1997). 1994 data are approximations.

2 MGMA data on the number of physicians in MGMA member groups were compiled 1/26/00.

3 The percentages in the two far right columns in this data grouping are percentages of all single specialty medical group practices.

Data source: Medical Group Management Association Member Database © 2000

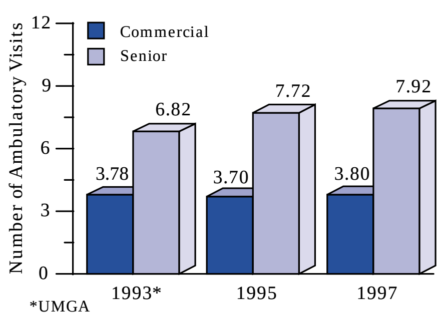
Medical group encounter rates show shifts in care patterns during 1990s

Pediatric group practices averaged more ambulatory encounters per physician in 1998 than did any other single specialty group type, with 5,067, down 16.2% from 6,048 in 1991, according to MGMA data. Among multispecialty groups, pediatricians also averaged the highest number of ambulatory encounters in 1998, with 4,503 per physician, down 12.3% from 1991. Similarly, between 1991 and 1998 hospital admissions per FTE physician declined in all five of the group specialties for which data are available.

MEDICAL GROUP PRACTICE UTILIZATION TRENDS

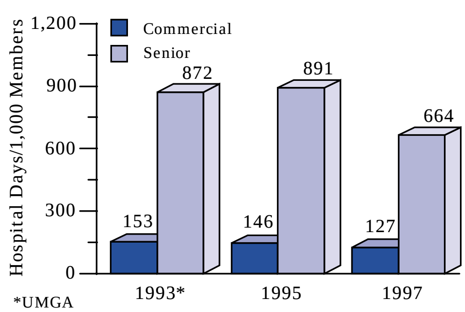
SPECIALTY	Number of Ambulatory Encounters per Physician								# of Hospital Admissions/FTE Physician*			
	Single Specialty Groups				Multispecialty Groups				All Practice Types			
	1991	1994	1996	1998	1991	1994	1996	1998	1991	1994	1996	1998
Allergy/Immun.	—	—	2,000	2,140	—	2,942	2,979	2,878	—	18	5	—
Cardiology	—	1,096	1,121	1,751	—	1,388	1,431	1,861	—	120	175	171
Card.: Noninv.	—	1,605	1,575	1,828	—	1,500	1,578	2,048	—	—	—	—
Family Practice	4,441	4,910	4,410	4,382	4,670	4,266	4,366	4,411	103	91	69	59
Internal Med.	2,816	2,753	3,059	2,998	3,356	3,350	3,305	3,397	144	133	149	114
OB/Gyn	3,499	3,060	3,179	3,201	3,417	2,999	2,983	3,012	225	184	164	123
Pediatrics	6,048	4,996	5,589	5,067	5,134	4,682	4,446	4,503	159	100	149	131
Gen. Surgery	1,824	1,424	1,492	1,498	1,740	1,728	1,558	1,713	163	87	71	46

AVG. AMBULATORY VISITS PMPY



*UMGA

AVG. ACUTE-CARE HOSP. DAYS/1,000



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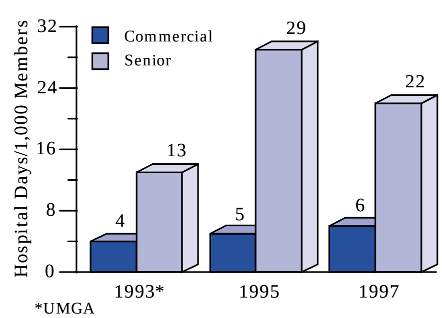
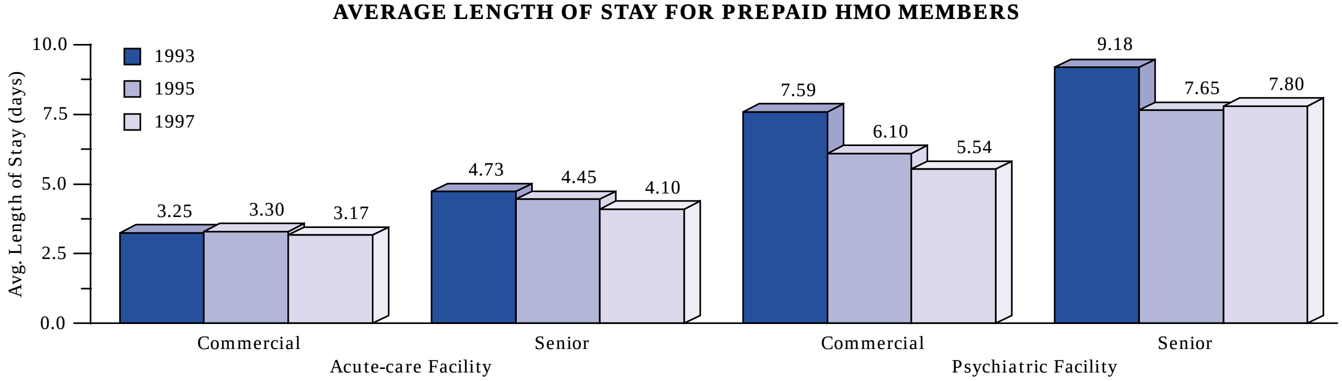
AVG. PSYCHIATRIC HOSP. DAYS/1,000



*UMGA

AVERAGE LENGTH OF STAY FOR PREPAID HMO MEMBERS



Data sources: MGMA Physician Compensation and Production Survey © 2000 and AMGA Statistical Database © 2000

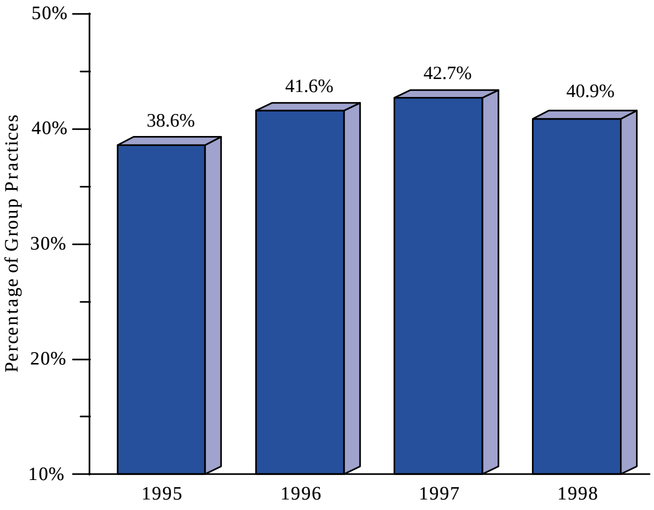
Medical groups stave off dependence on capitation in late part of 1990s

It became clear in the late 1990s that medical groups were trying hard not to become increasingly dependent on revenues from capitation contracts. By 1995, very large medical groups were already participating in capitation to a significant degree, but small and medium-sized medical groups were pushing against the trend, with smaller percentages of them in the latter part of the decade willing to get into capitation deals. The percentage of groups overall with revenue from capitation contracts was rising, but very slowly.

PERCENTAGE OF GROUP PRACTICES DERIVING REVENUE FROM CAPITATION CONTRACTS

	1995	1996	1997	1998
SIZE (# of FTE physicians)				
10 or fewer	—	27.6%	32.3%	28.7%
11–25	51.9%	50.0	45.2	45.2
26–50	64.6	63.8	60.7	58.3
51–75	69.2	81.6	76.5	72.2
76–150	87.2	85.0	90.2	91.4
151 or more	89.5	94.4	93.3	81.3
SPECIALTY COMPOSITION				
Single Specialty	25.9%	29.7%	33.0%	30.8%
Multispecialty	64.1	67.1	67.1	66.8
ALL GROUPS	**38.6%**	**41.6%**	**42.7%**	**40.9%**
SAMPLE SIZE	**1,065**	**1,123**	**1,195**	**1,047**

PERCENTAGE OF GROUP PRACTICES DERIVING REVENUE FROM CAPITATION CONTRACTS



PERCENTAGE OF SINGLE SPECIALTY GROUP PRACTICES WITH CAPITATION REVENUE BY SPECIALTY

	1996	1997	1998
Single Specialty			
Anesthesiology	15.2%	18.4%	9.6%
Cardiology	31.3	33.7	35.1
Family Practice	63.4	61.8	61.6
Internal Medicine	45.7	58.8	64.7
Pediatrics	73.3%	75.0%	70.8%
General Surgery	18.2	37.8	44.1
Orthopedic Surgery	21.1	20.9	17.6
Urology	25.9	24.1	20.7

Data source: Medical Group Management Association Cost Survey © 2000

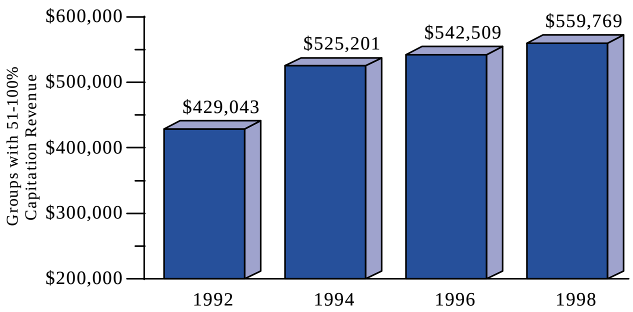
Highly capitated multispecialty groups garner highest total revenue

Median annual revenues per physician were highest in 1998 for multispecialty group practices deriving more than half of their revenue from capitation ($559,769), and were 3.6% higher than revenue per physician reported for groups having no capitation revenue ($540,275). The percentage of groups with at least some revenue from capitation has risen steadily over the years. In 1992, groups with no capitation revenue reported dollars collected per physician at almost the same level as for highly capitated groups.

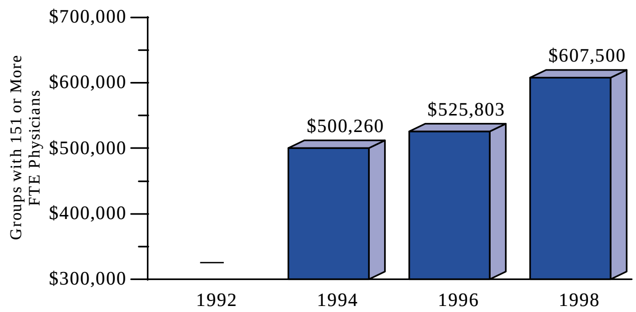
CHARGES AND REVENUES PER FTE PHYSICIAN FOR MULTISPECIALTY GROUPS

	1992	1994	1996	1998
TOTAL MEDICAL REVENUE				
Groups with No Capitation Revenue	$426,508	$440,353	$451,193	$540,275
Groups with 1%–10% Capitation Revenue	398,216	426,491	444,631	495,207
Groups with 11%–50% Capitation Revenue	418,358	455,101	407,076	491,617
Groups with 51%–100% Capitation Revenue	429,043	525,201	542,509	559,769

CHARGES AND REVENUES PER FTE PHYSICIAN FOR MULTISPECIALTY GROUPS



REVENUE PER FTE PHYSICIAN FOR MULTISPECIALTY GROUPS



REVENUE PER FTE PHYSICIAN FOR MULTISPECIALTY GROUPS

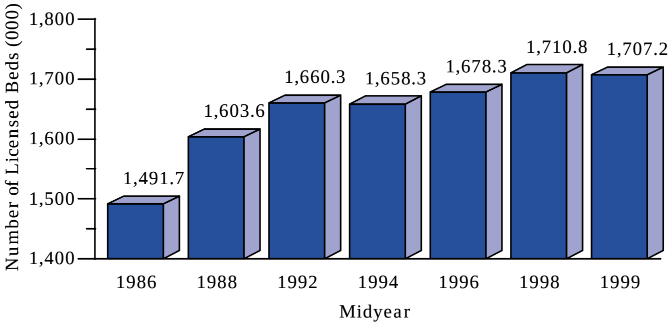
	1992	1994	1996	1998
TOTAL MEDICAL REVENUE				
10 or Fewer FTE Physicians	$352,198	$363,533	$400,564	$428,957
11–25 FTE Physicians	388,889	451,333	401,240	463,338
26–50 FTE Physicians	441,965	454,848	474,659	548,354
51–76 FTE Physicians	—	463,762	468,655	556,924
76–150 FTE Physicians	—	533,373	516,572	563,465
151 or More FTE Physicians	—	500,260	525,803	607,500

Data source: Medical Group Management Association Cost Survey © 2000

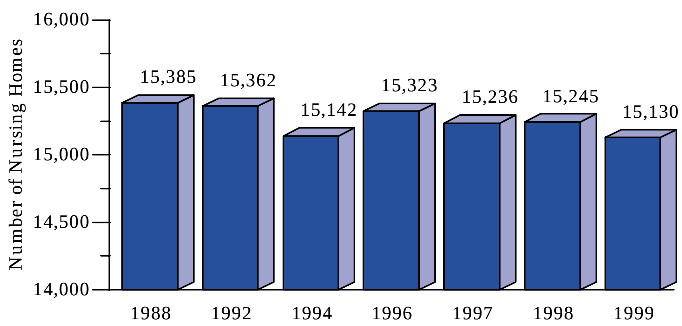
15-year increase in number of nursing home beds tops out in 1999

The number of licensed nursing home beds in the United States declined fractionally between 1998 and 1999, despite a fast-aging population and growing demand. However, from 1986 to 1999 the number of beds increased 14.4%. The largest gain occurred between 1986 and 1988, when the number of beds rose 7.5%. Meanwhile, the total number of nursing homes fell 1.7% nationwide from 1988 (15,385) to 1999 (15,130). Average occupancy in nursing homes has gradually declined from a peak of 93% in 1994.

NUMBER OF LICENSED NURSING HOME BEDS



NUMBER OF NURSING HOMES



NURSING HOME REVENUE SOURCES, BY OWNER TYPE

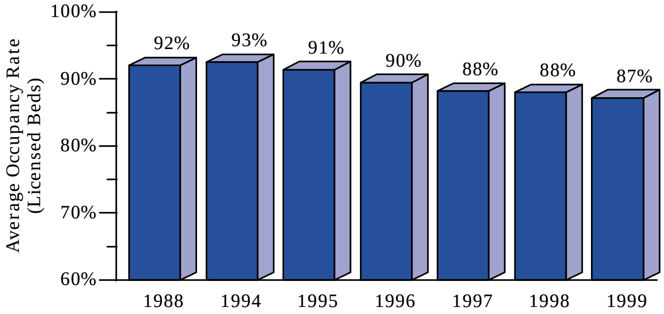
	1993	1994	1995	1996	1997	1998
Medicare*	5.4%	7.4%	6.6%	8.0%	6.5%	9.2%
Medicaid	56.5	55.4	60.0	60.2	57.6	59.0
Private-Pay/ Private Ins.	36.2	35.3	30.6	30.2	31.7	26.5
Vets. Affairs	0.5	0.7	0.7	0.2	0.9	0.8
HMO-PPO	0.3	0.6	0.5	1.0	0.8	1.8
Other	1.1	0.8	0.9	0.4	2.5	2.7

THE NATION'S LARGEST NURSING HOME CHAINS

	1995	1996	1997	1998	1999
Total Nursing Homes	3,290	3,360	3,602	3,958	4,039
Total Licensed Beds	376,619	392,811	416,495	455,805	464,354
Avg. Beds/ Nursing Home	114.5	116.9	115.6	115.2	109.3

* For the purposes of this Digest, Medicare patients have been defined as those covered by Medicare at the time of the survey, rather than those covered by Medicare at the time of admission or any time thereafter.

AVERAGE OCCUPANCY RATE (LICENSED BEDS)



Data source: SMG Marketing Group Inc. © 2000

The number of nursing homes and long-term care beds in the U.S. is regulated by laws in each state. Many states have held down the number of new licensed beds that can be made available because nursing homes must apply for permission to add beds, under old Certificate of Need laws still in force in many states. The increase in the amount of home care available to Medicare recipients is thought to have taken some pressure off very high occupancy levels within nursing homes, but demand for long-term care is increasing rapidly.

Home care agency count increases 2.5 times over 13 years; chains surge

In the 13 years since 1986, when 5,250 home care agencies operated, the number of agencies in the U.S. increased 2.5 times, to 13,101 in 1999. However, this agency count represents a decline of 12.8% from 15,018 in 1998, reflecting rapid consolidation in a highly fragmented industry. The 38 largest home care chains controlled 2,798 agencies in 1999, down 4.2% from the 1995 count, and 22.1% lower than in 1998. Medicare payment reforms that began in 1997 are drastically affecting the solvency of many home care agencies.

TYPE OF HOME CARE AGENCY OWNERSHIP BY PERCENTAGE OF TOTAL AGENCIES, 1994–1999

	1994	1995	1996	1997	1998	1999
Independent FP	25.0%	24.8%	29.8%	28.0%	23.5%	25.2%
Independent NFP	18.5	17.3	18.0	17.2	15.9	18.0
Chain FP	25.4	24.1	26.4	26.2	33.2	28.9
Chain NFP	6.2	6.4	6.0	5.8	7.9	9.5
Government	10.2	9.5	11.6	11.0	10.1	11.1
Church	3.1	2.7	2.9	2.7	2.4	2.6
Not known*	11.6	15.2	5.2	9.1	6.9	4.7

PATIENT MIX AND DEMOGRAPHICS BY PERCENTAGE OF TOTAL, 1995–1999

	1995	1996	1997	1998	1999
Male	38.4%	36.7%	38.5%	37.2%	35.7%
Female	61.6	63.3	61.5	62.8	64.3
Under 18 Years Old	6.0	4.4	3.9	7.0	4.6
18–64 Years Old	24.0	18.7	18.1	17.3	29.6
65–74 Years Old	48.1	37.3	28.5	31.0	32.7
75–84 Years Old	14.9	26.7	33.3	30.1	22.3
85 Years and Older	7.0	12.9	16.2	14.5	10.8
Patient Under 30 Days	29.4	28.2	31.0	34.1	38.7
Patient 30 Days or More	70.6	71.8	69.0	65.9	61.3
1 Visit per Week	24.5	26.9	29.8	29.4	42.5
2–3 Visits per Week	40.9	41.4	41.0	41.8	35.7
Over 3 Visits per Week	31.3	28.4	26.2	25.1	17.4
Requires 24-Hr. Service	3.4	3.3	3.0	3.6	4.5

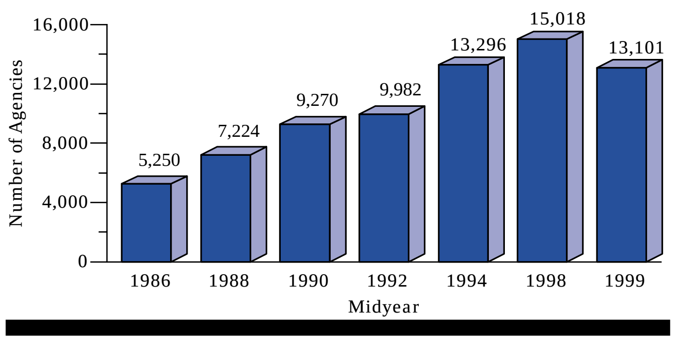
THE NATION'S 38 LARGEST HOME CARE CHAINS**

	1995	1996	1997	1998	1999
# of Agencies	2,921	3,649	3,984	3,590	2,798
No. of Empl.	106,662	145,974	154,859	139,249	112,319
Avg. Empl. per Office	36.5	40.0	38.9	36.1	38.0

* "Not known" includes home care agencies that did not report either an ownership type or an average number of visits per week.

** This table includes all home care agency offices owned, franchised or managed by these chains.

HOME HEALTH CARE AGENCIES



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Digests document revolutionary changes in health care system

The **Managed Care Digest Series™** has documented the major changes that have taken place in the health care delivery system over the course of the last two decades. Digest data have helped put flesh on the bones of an entirely different health care infrastructure re-engineered during the last 25 years. The effects of managed care are readily apparent in the data appearing in the 2,280-plus pages of the **Managed Care Digest Series™** published since 1987. The Digests have added context and perspective to events transforming the health care system, and will continue to do so. The Digests help everyone in health care—from clinicians to planners, businesses and policy makers—to grasp the impact and breadth of change.

INFORMED STAKEHOLDERS

From the earliest days of managed care in the 1970s, its advocates believed managed care plans would extend to a large part of the U.S. population and had the potential to vastly improve the process of delivering medical care to patients.

The **Managed Care Digest Series™** has served as arm's length observer and recorder of what happened within the health care system, never advocating what managed care propounded but making an effort to help all stakeholders in the system understand the changing world in which they worked and adapt to it intelligently.

MASSIVE SHIFTS

Throughout the 1970s and early 1980s, the number of HMOs grew dramatically, in the wake of federal legislation that endorsed and gave an imprimatur to these plans. Significant consolidation in the managed care industry began later in the 1980s, and by 1994 the number of plans had dwindled significantly while the size of plans was growing.

Although the consolidation trend was expected to continue, in 1995 the number of HMO plans began increasing once again, as hospitals, physician groups and other players jumped into the fray, launching new provider-sponsored health plans. The future is sure to hold still more unexpected bends in the road for HMOs.

Meanwhile, throughout the 1970s and 1980s a massive shift in the population's health insurance was taking place, as employers and the federal government adopted managed care strategies. They moved their work forces into PPOs or signed up for HMOs.

FLEXIBLE PLANS GAIN

PPOs grew more popular throughout the 1980s, but as more people were encouraged to join HMOs, some experts said PPOs would disappear. Far from fulfilling that expectation, PPOs hit a plateau for a few years, then resumed their growth in number of plans and participants. Reports that PPOs would die an early death were greatly exaggerated.

The evolution of managed care also contributed to the popularity of IPAs and point-of-service plans, with their added flexibility and wider choice. These plans now account for more HMO members than the more restrictive closed panel HMOs and the older-style staff- and group-model plans.

ALTERING M.D. DECISIONS

During the decades of the 1970s and 1980s, independent utilization review (UR) organizations that specialized in managing medical utilization disappeared as the UR aspects of managing care became standard components of PPO and HMO operations.

No one really knew 30 years ago whether managed care would work, or what its long-range effects would be. And few predicted how managed care's umbrella would one day cover a wide range of oversight and review activities and differentiated provider compensation methods, including very complex incentives and penalties used by health plans to influence physician treatment patterns.

FORCES CONVERGING

Has managed care worked? The jury is still out on that question. But clearly it has helped to lower hospital admission rates, hospital days per 1,000 and the average length of hospital stays. Managed care wasn't operating in a vacuum, of course.

Coupled with managed care and its many facets have been new and improved methods of performing surgery and treatment methods using pharmaceuticals. New pharmaceuticals have been introduced and others have undergone dramatic improvement, along with other methods of diagnosis and treatment of illness. Many observers credit the "sentinel effects" of managed care for bringing about decreases in cost inflation during the early and mid-1990s, mostly by means of overall utilization cuts.

DOCTORS REGAIN POWER

Although efforts have clearly been made by HMOs and PPOs to

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Management of patient care across the continuum is ongoing challenge

A primary goal of managed care is the intelligent management of patient care, in which all stakeholders have an interest in delivering high-quality care, improving outcomes and basing decisions on cost-risk-benefit assessments. Another objective is to coordinate care across the entire health care continuum. These beliefs embody the ideals of a newly evolved managed health care system. They reflect the participation of highly educated patients much more eager than were their predecessors in decision-making with doctors and other providers. Several states are acknowledging that cost-benefit considerations in the treatment of illness can't be legislated. Patients want the power and the flexibility to avail themselves of wide choices.

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maintain the high quality of health care for patients, managed care had added to the burden of physicians who were forced to obtain approvals and authorizations and process constant referrals if specialty medical care was needed. The added paperwork and administrative burdens, coupled with a shift to paying for care by means of capitation (per member per month HMO payments to physicians), motivated physicians to call for ways to simplify the system so they could again focus on patient care.

Where is managed care going next? With physicians regaining significant leverage and bargaining power, is the health care system being transformed once again? It may make little sense to look in the rearview mirror of managed care to predict future utilization costs and trends, especially given the aging of the population and legislative uncertainties.

NEW BYWORDS, NEW GOALS

Many aspects of the health care delivery system are now forever altered. Revolutionary changes will continue in diagnosis, treatment of illness and coordination of care—not only within a local area but across thousands of miles of geographical distance, if for no other reason than advances in information technology and communications using the Internet.

Intelligent management of patient care and expectations are considered the new bywords of health care delivery.

Health care integration became an important part of the system's transition to intelligent management of patient care in the 1990s. Integrated delivery systems (IDSs) are viewed as one of the keys to making managed care and coordinated care work across the spectrum of delivery components.

UNPREDICTABLE WORLD

IDSs are still evolving, and more are becoming "highly integrated." But integration is nowhere near the point where some experts thought it would be by now. In fact, some IDSs are coming apart at the seams. Information technology systems still require millions if not billions of dollars in upgrades to make integration work.

Not everyone agrees that the massive changes wrought by—or at least encouraged by—the implementation of managed care have been good for the health care delivery system. Many managed care activities led to unintended consequences. As a result, some managed health plans, physician groups and hospitals are struggling to survive in a world now dominated by managed care.

MAINSTREAM MEDICINE

Yet managed care, for all its controversy, has been absorbed into the health care lexicon and is part of mainstream medicine today. Managed care plans have become the health plans of choice for most U.S. employers and their workers.

We have witnessed in recent years the growth of large multihospital systems and hospital chains, a stunning shift from inpatient hospital care to ambulatory services, and the expansion of in-home care. Medical groups are growing in importance and dominance as physicians come together to better manage their medical practices in light of their heightened administrative responsibilities.

CAPITATION IS EVOLVING

Managed care may be accomplishing many goals set out for it, but its sometimes-clumsy implementation has created major dislocations in the health care system and a backlash among employers, workers, patients and physicians that few foresaw. The capitation system by itself, long viewed by HMOs as a key to cost control, is undergoing a metamorphosis as doctors pull back from this method of contracting for their services.

The health care system is still trying to find the right formula for balancing and aligning risks and rewards for medical providers. At the same time, everyone is dealing with the added cost pressures created by empowered consumers (patients), an aging population, and advancing medical technology.

We will continue to look to the great advances taking place in the realm of science and technology as bright hopes for the future.