CBO MEMORANDUM

THE EFFECTS OF MANAGED CARE AND MANAGED COMPETITION

February 1995

CONGRESSIONAL BUDGET OFFICE

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SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515

This Congressional Budget Office (CBO) memorandum updates and revises an earlier CBO report--a March 1994 memorandum titled "Effects of Managed Care: An Update." It presents CBO's current assessment of the effects of health maintenance organizations based on an analysis of the 1992 National Health Interview Survey. In keeping with CBO's mandate to provide impartial analysis, the report makes no recommendations.

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SUMMARY

New evidence from the 1992 National Health Interview Survey indicates that health maintenance organizations (HMOs) reduce use of health care services by an average of about 8 percent, compared with services that similar patients would be expected to use in a typical fee-for-service indemnity plan. Most of this effect is generated by group- or staff-model HMOs, which reduce use of services by nearly 20 percent. Although independent practice associations (IPAs) having certain characteristics could be as effective as group/staff HMOs, many IPAs do not have these characteristics. Further, IPAs would be unable to develop two of the necessary characteristics in states that have "any-willing-provider" laws, which require network plans to accept all providers who are willing to meet the plans' terms.

The effects on use of services presented in this memorandum, however, do not necessarily imply similar effects on health care spending if enrollment increased in more tightly managed plans. Spending changes would mirror changes in use only if it was reasonable to assume that there would be no alteration in payment rates for providers or in administrative costs, at least on average. Those assumptions would not be reasonable in many instances. For example, if enrollment in HMOs or other managed plans increased, average payment rates for providers might fall because managed plans are more likely than unmanaged plans to negotiate for and win price discounts from providers. It is also likely that administrative costs would increase.

INTRODUCTION

The Congressional Budget Office (CBO) last summarized its assessment of research on the effects of various forms of managed care in a memorandum released in March 1994.[1] That memorandum also presented estimates of national health spending under alternative assumptions about the proportion of insured people who were moved into more effective forms of managed care.

This memorandum presents CBO's current assessment of the effects of health maintenance organizations (HMOs) based on an analysis of the 1992 National Health Interview Survey conducted by the National Center for Health Statistics. Further, it expands the previous memorandum to discuss the effects of point-of-service and "any-willing-provider" requirements on HMOs and other network plans. It also examines the experiences of some purchasing cooperatives that have attempted to introduce more competitive pressures on health plans.

EFFECTS OF HMOs AND OTHER MANAGED CARE ARRANGEMENTS

The health insurance market has been changing rapidly in recent years. New forms of managed care (such as independent practice associations and point-of-service plans) have developed to compete with group/staff HMOs, and even most indemnity plans have now incorporated some elements of managed care.[2] Participation in all forms of managed care has increased as both providers and patients have become more accepting of limits imposed by insurers.

How much the growth of managed care has reduced the use medical services and health care costs is uncertain. Data and methodological limitations make it difficult to isolate the effects of specific types of managed care. Nevertheless, estimates of these effects are important for assessing some legislative proposals. In the comparisons made in this memorandum, a "traditional" indemnity plan is one that has no managed care component. A "typical" indemnity plan is one that has some elements of managed care--such as utilization review or a network of preferred providers.

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1. Congressional Budget Office, "Effects of Managed Care: An Update," CBO Memorandum (March 1994).

2. An independent practice association is an HMO that contracts with individual physicians or groups to provide services to its enrollees in the physicians' private offices. The physicians also continue to treat patients not enrolled in the HMO. Physicians in group/staff HMOs treat the HMO's patients exclusively. Until recently, independent practice associations and group/staff HMOs were generally "closed-panel" plans, in which enrollees were restricted to the plan's panel of providers. In recent years, however, the "open-panel" or point-of-service option has become more common. Under that option, plans pay part of the costs of covered services from out-of-plan providers.

Average Effects of HMOs on Use of Services

In CBO's 1994 managed care memorandum, assumptions about the potential drop in use of health care services under proposals that would shift insurance enrollment to HMOs were based on a study by Lewin-VHI, Inc., which used data for 1989 from the National Health Interview Survey (NHIS).[3] New evidence from the 1992 NHIS, however, indicates that the Lewin-VHI results probably understate the reduction in use to be expected from HMOs when compared with indemnity plans. By introducing a variable for childbirth into the equations, CBO was able to control for an important source of adverse selection among HMO enrollees that apparently biased the results from the Lewin-VHI study.

CBO's findings from the 1992 NHIS indicate that the reduction in total use of services for HMOs is about twice as large as the estimates reported by Lewin-VHI. (See the appendix for CBO's analysis.) Compared with the current mix of managed and unmanaged indemnity plans, group/staff HMOs reduce use of medical services by an estimated average of 19.6 percent, instead of the 9.1 percent reduction implied by the Lewin-VHI results; independent practice associations (IPAs) reduce use by an average of about 0.8 percent, instead of 0.3 percent (see Table 1). When these findings for group/staff HMOs and IPAs are combined using 1992 year-end enrollment patterns, the estimated average effect of HMOs is to reduce use of services by 7.8 percent, when compared with the current mix of indemnity plans.[4] The 1994 memorandum assumed that the average effect was about 4 percent.[5]

The results in this memorandum--which focus on use of services, not costs--confirm the Lewin-VHI findings that reductions in use of services from HMOs currently come almost entirely from group/staff models. On average, IPAs do little better than indemnity plans. As discussed in CBO's March 1994 memorandum, the IPA form of HMO can be as effective as group/staff HMOs if certain conditions are met, but frequently they are not. The IPAs that are most likely to approach the effectiveness of the best group/staff HMOs are selective about using cost-conscious providers, maintain an effective network for information and control, place providers at financial risk, and generate a substantial portion of each provider's patient load.

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3. Lewin-VHI, Inc., *The Financial Impact of the Health Security Act, Appendix A* (Fairfax, Va: Lewin-VHI, Inc., December 9, 1993), Table A-4; and Lewin-VHI, Inc., "Effects of Managed Care, Uninsurance, and AIDS on Health Care Use" (Fairfax, Va.: Lewin-VHI, Inc., February 15, 1993).

4. According to a 1993 report by the Group Health Association of America (*Patterns in HMO Enrollment*, p. 25), 37 percent of HMO enrollees were in group/staff models at the end of 1992, and 63 percent were in IPAs and network plans.

5. In addition to the different effects estimated for group/staff HMOs and IPAs, this average used the 1989 distribution of HMO enrollment--41 percent in group/staff models and 59 percent in IPAs.

TABLE 1. AVERAGE REDUCTION IN USE ESTIMATED FOR PEOPLE IN HMOs COMPARED WITH THOSE IN TYPICAL INDEMNITY PLANS

	Percentage Reduction in Use of Services by Type of HMO		
	Group/Staff	IPA	HMO Average
Current Estimates	19.6	0.8	7.8[a]
Previous Estimates	9.1	0.3	3.9[b]

SOURCE: Congressional Budget Office.

NOTES: Typical indemnity plan refers to a fee-for-service plan with some elements of managed care.

HMO = health maintenance organization; IPA = independent practice association.

a. Assumes 37 percent in group/staff HMOs and 63 percent in IPAs.

b. Assumes 41 percent in group/staff HMOs and 59 percent in IPAs.

A study of Aetna, Humana, and Prudential insurance plans confirms the importance of patient volume if IPAs are to affect providers' treatment patterns. Managers in these plans said they could not get the attention of network physicians unless the physician had at least 100 patients from the plan. Regression estimates from Humana plans indicated that an increase in volume from 100 enrollees to 1,000 per physician was associated with a 6.4 percent decline in specialty and hospital care costs per enrollee. The effect on costs was especially large up to about 600 patients per physician.[6]

It is noteworthy that the HMO effects discussed above refer to differences in use of services between the typical HMO and the typical indemnity plan in 1992. Because indemnity plans usually have higher cost-sharing requirements than do HMOs, and because cost sharing reduces patients' use of services, the isolated effect of the HMO style of practice on reducing use of services is greater than the estimated effects show. In other words, if HMOs and indemnity plans imposed the same cost-sharing requirements, the difference in use of services between enrollees in HMOs and those in indemnity plans would be larger than the estimates given above. For most proposals, however, there is no reason to believe that the dissimilar cost-sharing requirements for HMOs and indemnity plans would change, so the smaller effects estimated from the NHIS for typical plans are the relevant ones.

The assessment in this memorandum about the savings to be expected if more insured people were in managed care plans refers to effects on use of services only, compared with the expected use of services by similar patients in a typical indemnity plan. Additional effects (either savings or costs) may be caused by changes in provider prices or discounts and in administrative costs, but this analysis makes no attempt to incorporate them. CBO's cost estimates for specific health legislation, however, do incorporate estimates of these effects.

Confusion sometimes arises when analysts report effects based on different concepts. This can be illustrated by referring to a recent study released by Lewin-VHI.[7] The study reports that costs for patients in Aetna's IPAs were 23 percent lower than costs for similar patients in traditional indemnity plans, after eliminating the effects of benefit and copayment differences. To make this estimate comparable to CBO's estimated reduction in use of 0.8 percent for IPAs compared with the typical indemnity plan, however, three adjustments must be made. In particular, it is necessary to:

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6. See David C. Stapleton, "New Evidence on Savings from Network Models of Managed Care" (Fairfax, Va.: Lewin-VHI, Inc., May 1994).

7. Ibid.

- Eliminate the savings attributable to the IPA's negotiated price discounts by subtracting 15 percent;[8]

- Subtract 4 percent to reflect the savings that indemnity plans typically achieve through utilization review;[9] and

- Subtract an additional 4 percent to account for the relatively low cost-sharing requirements in IPAs.[10]

The first adjustment eliminates savings from price discounts because CBO's estimate from the NHIS considers only effects on use of services. (Savings or costs that might arise from price discounts or any changes in price are, however, incorporated into CBO's estimates for specific legislative proposals in a separate step.) The second adjustment is necessary because Aetna's estimate compares IPAs with traditional (unmanaged) indemnity plans, and CBO's estimate compares IPAs with typical indemnity plans (which now generally include elements of managed care, such as utilization review). The third is necessary because IPAs typically have lower cost-sharing requirements than do indemnity plans, and Aetna's estimate was designed to eliminate the effects of these differences. If cost-sharing requirements were identical for the two kinds of plans, Aetna's results would indicate that IPAs reduce use of services by about 4 percent compared with its indemnity plans.[11] However, the lower cost-sharing requirements that are typical of IPAs encourage greater use of services by enrollees.

Applying the three adjustments described above to Aetna's original estimate of savings of 23 percent yields an estimate comparable to CBO's, and it indicates that the typical IPA does not appreciably reduce use of services when compared with

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8. Aetna estimated the average provider discount in its network plans at 15 percent.

9. Aetna estimated savings of 4 percent from utilization review in its indemnity plans.

10. The amount needed to reflect the lower cost-sharing requirements in Aetna's typical IPA, compared with its indemnity plans, was estimated based on the "low" and "high" cost-sharing amounts shown in Exhibit II.1 of the Stapleton paper. The copayment for an office visit under the "low" IPA plan was two-thirds of the copayment under the "high" plan ($10 versus $15); consequently, it was assumed that average cost-sharing requirements in Aetna's IPAs (low cost-sharing plans) were about two-thirds of average cost-sharing requirements in Aetna's indemnity (high cost-sharing) plans. To eliminate Aetna's adjustment to equalize cost sharing, it was estimated that use of services for IPA enrollees would be about 4 percent higher if cost sharing was reduced from an average of 25 percent for high cost-sharing plans to about 17 percent, assuming an elasticity of -0.1. This adjustment could be smaller depending on the proportion of indemnity enrollees whose plans offer them lower cost sharing when they use the plan's preferred panel of providers.

11. Results are derived using Aetna's 23 percent estimate minus the 15 percent adjustment to eliminate the effects of fee discounts and minus the 4 percent adjustment to recognize the utilization review now typical for indemnity plans.

the typical indemnity plan. By utilization review, both kinds of plans can reduce use of services by about 4 percent when compared with a traditional (unmanaged) indemnity plan. Independent practice associations might reduce use by another 4 percent by applying other provider controls, but in the typical IPA that effect is generally offset by the higher patient use encouraged by the IPA's low cost-sharing requirements. Independent practice associations also typically reduce enrollees' health care costs by negotiating discounted prices from providers, but that is beyond the scope of this analysis, which focuses entirely on effects on use of health care services.

Any-Willing-Provider and Point-of-Service Requirements

In some states, HMOs and network health plans are subject to "any-willing-provider" (AWP) requirements, which prohibit network plans (IPAs and preferred provider organizations, but not group/staff HMOs) from excluding any providers in the area who are willing to accept a plan's terms for participation in the network. A variant of this is the point-of-service (POS) requirement, under which health plans having a limited group of providers (group/staff HMOs and IPAs) are required to reimburse enrollees for covered services received from out-of-plan providers. Generally, however, plans are permitted to impose higher cost-sharing requirements on out-of-plan services, similar to the different cost-sharing requirements that preferred provider organizations (PPOs) impose in order to encourage enrollees to use the plans' preferred providers.

AWP requirements are intended to ensure that no providers are denied access to a plan's patient population if they are willing to abide by the plan's conditions for participation. POS requirements are intended to ensure that patients are free to use the providers of their choice (although they may have to pay more of the costs). Proponents of managed care believe, however, that these requirements greatly reduce a managed care plan's ability to provide lower-cost care than traditional indemnity plans. Proponents of the restrictive requirements argue that the protection they provide patients and providers is of sufficient importance to justify the decreased ability of managed plans to reduce costs. Thus, the policy decision to impose AWP or POS requirements on health plans comes down to a value judgement: How much is society willing to pay in higher health care costs to protect patients and providers in this way?

Any-Willing-Provider Requirements. In the states where they exist, these requirements apply to plans that have nonexclusive contracts with a network of providers (IPAs and PPOs), but not to group/staff HMOs that employ physicians exclusively to serve the plan's patients. Thus, the most effective type of HMO is not

subject to AWP requirements. The potential for IPAs to constrain use of services, however, may be adversely affected by AWP requirements.

Although the evidence to date indicates that the typical IPA does not significantly alter use of services compared with indemnity plans, IPAs with certain characteristics have the potential to reduce use as effectively as group/staff HMOs. An AWP requirement, however, might make it impossible for IPAs to develop two of those necessary characteristics: selective contracting with cost-effective providers and sufficient IPA patient volume to affect providers' behavior. Further, having to contract with all interested physicians in a region increases an IPA's costs in two other ways: the IPA incurs higher administrative costs because it has to contract with a larger number of providers and document disenrollment decisions more thoroughly, and it is less able to negotiate price discounts with providers because it cannot assure each participating provider enough of an increase in volume to offset the discount.

The Point-of-Service Option. In 1992, about 50 percent of HMO plans provided a POS option for enrollees, although these plans covered only about 6 percent of all HMO enrollees. Only 15 percent of those enrolled in a POS option were in group/staff HMOs; the rest were in IPAs or other network-model HMOs.[12]

There is little solid information about the effects that a POS option would have on a plan's ability to control use of services, although they could be substantial even if only a small proportion of enrollees used out-of-plan providers. The reason is that those patients who are most likely to consult physicians outside the plan's network have serious health problems and want treatment from particular specialists. Because the highest-cost 5 percent of enrollees typically account for 50 percent or more of health plan costs, a few of these patients can transfer a substantial portion of the plan's benefit costs to out-of-plan providers.

Plans could, however, counteract the costly effects of a POS option by imposing sufficiently high cost-sharing requirements on out-of-plan use. Indeed, evidence from Aetna indicates that its IPA-POS plans were able to reduce benefit costs by about as much as its closed-panel IPAs, when compared with a traditional indemnity plan, but the source of the reduction in benefit costs may be very different.[13] As explained earlier, most of Aetna's savings from IPAs result from discounts on providers' fees, and there is little effect on use of services beyond that achieved by utilization review. POS plans will gain no savings from discounts on

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12. Group Health Association of America, *Patterns in HMO Enrollment* (Washington, D.C.: Group Health Association of America, 1993).

13. Stapleton, "New Evidence on Savings," Exhibit II.3.

out-of-plan services, so the loss of discounts must be made up from greater patient cost sharing and less use of services. Moreover, the IPA-POS plans have higher administrative costs than do closed-panel IPAs.

Revised Estimates of Effects on Total Spending

Revised estimates of the effects of HMOs imply that those to be expected for each person moving from an indemnity plan to an HMO would be greater than was predicted in CBO's 1994 memorandum. (Tables 2 through 4 revise the results for 1990 that were shown in Tables 4 through 6 of that earlier memorandum.) Compared with a traditional (unmanaged) indemnity plan, CBO's most recent findings indicate that group/staff HMOs reduce use of services by 21.9 percent for privately insured patients, and IPAs reduce use by an average of 3.6 percent (see Table 2).[14] Assumptions about the effects of managed indemnity plans on use of services are unchanged from the previous memorandum. Compared with unmanaged care, effective utilization review (including precertification and concurrent review for hospital stays) can reduce use by 4 percent, while other, less effective forms of management in indemnity plans are assumed to reduce use by about 2 percent.[15] In 1990, about 47 percent of private indemnity plans had effective utilization review programs in place, 47 percent had less effective forms of use management, and 6 percent were unmanaged; consequently, use of services in the indemnity sector was about 2.8 percent lower than it would have been if all indemnity plans had been unmanaged.

Under these assumptions about changes in use of services, and assuming that spending would mirror changes in use, spending on insured services would have been lower by 16.6 percent nationwide if all insured people had been enrolled in group/staff or other equally effective HMOs in 1990 (see Table 3). Total national health expenditures would have been lower by 11.9 percent (see Table 4).

Because some people live in areas not populous enough to support HMOs, however, it is unrealistic to assume that all insured people could be enrolled in effective HMOs, even after the lengthy period needed for their development. If, instead, all insured people in less effective forms of managed care had been moved

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14. These results are the combined effects for HMOs compared with the current mix of managed and unmanaged indemnity plans, augmented by the estimated average reduction in use (2.8 percent) generated by the current mix of indemnity plans compared with an unmanaged plan.

15. The 4 percent assumption is consistent with Aetna's estimated effects of utilization review in its indemnity plans.

TABLE 2. AVERAGE REDUCTION IN USE ESTIMATED FOR PEOPLE IN MANAGED CARE PLANS COMPARED WITH THOSE IN UNMANAGED INDEMNITY PLANS

Primary Source of Insurance Coverage	Percentage Reduction in Use of Services by Type of Managed Care Arrangement[a]				
	I	II	III	IV	V
Medicare	21.9	3.6	4.0	2.0	0
Medicaid	10.9	1.8	2.0	1.0	0
Private or Other Public	21.9	3.6	4.0	2.0	0
No Insurance	0	0	0	0	0

SOURCE: Congressional Budget Office.

NOTE: The effect of managed care on use of services for Medicaid enrollees is half the reduction assumed for enrollees in Medicare and private insurance plans, reflecting the expectation that payment rates and access to services for Medicaid enrollees would increase under managed care arrangements.

a. Categories of managed care:
   I. Group/staff model health maintenance organizations
   II. Independent practice associations
   III. Utilization review including precertification and concurrent review of hospital care
   IV. Other forms of managed care
   V. Unmanaged (traditional) fee-for-service indemnity plans

TABLE 3. ESTIMATED SAVINGS AS A PERCENTAGE OF POTENTIALLY MANAGEABLE EXPENDITURES, 1990

Primary Source of Insurance Coverage	Distribution of Insured Population by Type of Managed Care		
	All in Effective HMOs	Six Percent in Effective HMOs and 94 Percent in Effective UR	Seventy Percent in Effective HMOs and 30 Percent in Effective UR
All Sources	16.6	1.3	11.7
Medicare	19.5	1.9	14.0
Medicaid	10.7	1.9	8.0
Private or Other Public	18.1	1.0	12.5
No Insurance	0	0	0

SOURCE: Congressional Budget Office.

NOTES: Potentially manageable expenditures are the portion of health care spending that managed care could affect, which includes all personal health services that are typically offered as insurance benefits. The analysis assumes that changes in use result in comparable changes in spending, although payment methods and differences in administrative costs may preclude this.

HMO = health maintenance organization; UR = utilization review.

TABLE 4. ESTIMATED SAVINGS AS A PERCENTAGE OF ALTERNATIVE HEALTH EXPENDITURE TOTALS, 1990

Form of Health Expenditure	Distribution of Insured Population by Type of Managed Care		
	All in Effective HMOs	Six Percent in Effective HMOs and 94 Percent in Effective UR	Seventy Percent in Effective HMOs and 30 Percent in Effective UR
Manageable Personal Health Care Expenditures	16.6	1.3	11.7
All Personal Health Care Expenditures	13.5	1.0	9.5
National Health Expenditures	11.9	0.9	8.3

SOURCE: Congressional Budget Office

NOTES: Potentially manageable expenditures are the portion of health care spending that managed care could affect, which includes all personal health services that are typically offered as insurance benefits. The analysis assumes that changes in use result in comparable changes in spending, although payment methods and differences in administrative costs may preclude this.

HMO = health maintenance organization; UR = utilization review.

into effective utilization review programs, and the proportion of insured people in the most effective HMOs was unchanged (at about 6 percent), spending on insured services would have been lower by an estimated 1.3 percent in 1990. National health expenditures would have been lower by 0.9 percent.[16]

Alternatively, if the 70 percent of the population who live in areas populous enough to support effective HMOs had been enrolled in them, and the other 30 percent were enrolled in indemnity plans with effective utilization review programs, insured spending would have been lower by an estimated 11.7 percent in 1990. National health spending would have been lower by 8.3 percent.

The assumption in Tables 3 and 4 that spending would mirror changes in use of services implies that average provider and administrative costs would be unchanged from their current levels, but there are reasons why that might not occur. For example, as enrollment shifted to managed care, average administrative costs would probably increase because managed plans tend to have higher administrative expenses than unmanaged plans. Average payment rates would fall if managed plans were at least as successful as they are now in negotiating lower rates for their enrollees, and if providers were unable to recover their lost revenue by increasing the rates charged to other payers.

Moreover, although there is evidence that Medicare patients enrolled in risk-based HMOs use fewer Medicare services than they would have used in the fee-for-service sector, Medicare's costs generally increase for each enrollee who switches to an HMO under the current payment system. This happens because Medicare's per capita payment to the HMO--which is based on what enrollees cost in the fee-for-service sector--does not adequately reflect the generally healthier population that chooses the HMO option.[17]

Quality of Care and Enrollee Satisfaction

HMOs appear to provide health care that is roughly comparable with that available through indemnity plans for most conditions, with two broad exceptions--one favorable and one unfavorable. On the favorable side, HMOs tend to provide more

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16. This result is unchanged from the result reported in CBO's 1994 memorandum because the only shifts that would occur are into indemnity plans with effective utilization review. Assumed savings for such a shift are unchanged from the previous memorandum.

17. Jerrold Hill and others, "The Impact of the Medicare Risk Program on the Use of Services and Costs to Medicare: Final Version" (Princeton, N.J.: Mathematica Policy Research, Inc., December 3, 1992).

prenatal, preventive, and cancer-screening services than do indemnity plans.[18] Thus, cancers tend to be diagnosed at an earlier, more curable stage.[19] On the unfavorable side, group/staff HMOs and IPAs that restrict access to specialists sometimes do so with adverse effects for patients, especially those who have conditions for which treatment norms are not well defined. For example, primary care physicians in HMOs are less likely to diagnose or treat patients with depressive disorders appropriately, although treatment is comparable to that provided in indemnity plans once the patient is referred to a mental health specialist.[20]

One study concluded, "Restrictive practices do not seem to adversely affect most people in good health or those with only minor health problems, but these practices pose special risks for people whose health is poor. In the RAND Health Insurance Experiment, low-income individuals and families who were in poor health at the start of the study and who were randomly assigned to a large, well-established HMO had, by the end of the experiment, more bed-days per year due to poor health and more serious symptoms than those assigned to the fee-for-service plan with no patient cost sharing, and they had a greater risk of dying than those in the fee-for-service plan with cost sharing."[21] A more recent study concluded, "little evidence exists to show that the successes of prepaid care in relatively healthy populations can be replicated among sicker patients."[22]

HMO enrollees tend to be more satisfied with their benefits and premiums than people in indemnity plans but less satisfied with their access to and their interactions with HMO physicians.[23] HMO enrollees in both group/staff models and IPAs have better financial access to care because cost-sharing requirements are lower than those in indemnity plans. Further, coordination of patient care tends to be better

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18. R.H. Miller and H.S. Luft, "Managed Care Plan Performance Since 1980: A Literature Analysis," *Journal of the American Medical Association*, vol. 271, no. 19 (May 18, 1994).

19. G.F. Riley and others, "Stage of Cancer at Diagnosis for Medicare HMO and Fee-for-Service Enrollees," *American Journal of Public Health*, vol. 84, no. 10 (October 1994).

20. K.B. Wells and others, "Detection of Depressive Disorder for Patients Receiving Prepaid or Fee-for-Service Care: Results from the Medical Outcomes Study," *Journal of the American Medical Association*, vol. 262, no. 23 (December 15, 1989).

21. Thomas Rice, E. Richard Brown, and Roberta Wyn, "Holes in the Jackson Hole Approach to Health Care Reform," *Journal of the American Medical Association*, vol. 270, no. 11 (September 15, 1993). The RAND results were reported in J.E. Ware and others, "Comparison of Health Outcomes at a Health Maintenance Organization with Those of Fee-for-Service Care," *Lancet*, no. 1 (1986).

22. D.G. Safran, A.R. Tarlov, and W.H. Rogers, "Primary Care Performance in Fee-for-Service and Prepaid Health Care Systems: Results from the Medical Outcomes Study," *Journal of the American Medical Association*, vol. 271, no. 20 (May 25, 1994).

23. Ibid.

in group/staff HMOs and in some IPAs (those with primary care case-management) than in indemnity plans. Organizational access is lower for group/staff enrollees, however, because patients have greater difficulty reaching a physician with a medical question and obtaining medical care on short notice. In addition, group/staff enrollees are less likely to have the same physician for subsequent care.

EFFECTS OF MANAGED COMPETITION

The higher estimated savings for HMOs obtained from CBO's analysis of the 1992 NHIS may understate their long-term savings potential. Proponents of managed competition believe that a number of factors that are still characteristic of the health care marketplace have shielded HMOs from the kind of competition that would induce them to achieve their full potential. Perhaps the most important factor has been the tendency of employers (encouraged by the tax laws) to subsidize generously whatever health plan choice employees make, with little or no penalty for choosing a high-cost plan when a menu of plans is offered.

Proponents of managed competition believe that if employees were required to pay all of the premium difference between their choice and the lowest-cost plan deemed acceptable, they would rapidly switch to lower-cost plans.[24] Consequently, plans would have strong incentives to operate efficiently and to price their benefits lower. By contrast, many believe that under current incentives HMOs need not charge the lowest cost at which they could provide benefits. Because many employers contribute up to a fixed amount based on the average cost of the most popular plans they offer (which tend to be higher-cost indemnity plans), HMOs that could offer the specified benefits for a lower premium than the employer's fixed contribution have no incentive to do so, because it would not increase enrollment.[25]

The State Employee Insurance Program (SEIP) in Minnesota provides the best example to date of managed competition in practice.[26] The SEIP is a purchasing cooperative that offers to state employees a number of health plans that have similar

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24. Economists believe that even the employer-paid share of premiums is effectively paid by employees, in the form of reduced wages, and that in the long run employees' choices reflect this reality. Nevertheless, the share that is nominally paid by the employer is important to employee choices even in the long run because under current law the employer share is paid from pretax income, whereas the wage income that would otherwise be paid the worker would be taxed. Thus, the employer-paid share is subsidized through the tax system.

25. Enrollees who choose plans costing less than the employer's fixed contribution amount do not receive the excess contribution; instead, the employer keeps it.

26. See John Klein and Robert Cooley, "Managed Competition in Minnesota," *Managed Care Quarterly*, vol. 1, no. 4 (Autumn 1993).

(but not identical) benefits during an annual open-enrollment period. It provides employees with comparative information not only about participating plans' premiums, but also about enrollee satisfaction. Community rating applies, and the state's contribution toward premiums is set by the lowest-cost plan available to each employee.[27] Because the program is still evolving and took its current form only recently, however, it is too soon to draw more than tentative conclusions. Furthermore, because it covers only state employees, its effects may differ significantly from those of a comprehensive program.

Before 1986, Minnesota based its contribution toward health insurance costs for state employees on SEIP's most popular plan, which was traditional indemnity coverage offered by Blue Cross. The state paid 100 percent of this premium for employees, and 90 percent for dependents. Premiums for other plans offered by the state clustered closely around the Blue Cross premium. Effective for the 1986 contract year, however, the state changed the basis for its contribution to the lowest-cost plan available in each area. Employees who chose the lowest-cost plan paid nothing for their coverage, but those who chose a more expensive plan paid the amount by which their plan's premium exceeded that of the lowest-cost plan.

After this change in the basis for the state's contribution, significant variation in the premiums charged by participating plans emerged. The result was a substantial shift in enrollment toward the lowest-priced plans. By 1989, a group/staff HMO had become the lowest-priced plan in the areas it served. Its share of enrollment in the Minneapolis metropolitan area grew from 27 percent in 1988 to 51 percent by 1993 (growth statewide was from 19 percent to 35 percent). The unmanaged plan that had been the basis for the state's contribution before 1986 was changed in 1990 to a PPO in an attempt to remain competitive; nevertheless, its share of enrollment in the Minneapolis metropolitan area dropped from 42 percent in 1988 to 16 percent by 1993 (statewide it dropped from 56 percent to 42 percent). Thus, enrollees were quite responsive to the price they paid out of pocket for insurance. Further, enrollees were willing to shift not only among plans of a similar type, but also among those of

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27. See Congressional Budget Office, *Managed Competition and Its Potential to Reduce Health Spending* (May 1993), Chapter 3, for a description of the important features of managed competition. Of the features listed in the CBO study, the Minnesota program lacks only a risk-adjustment mechanism to offset any effects of selection bias that may occur among the competing health plans.

different types--from higher-cost plans that permitted patients to see any provider of their choice to HMOs with a closed panel of providers.[28]

The rate of growth in premiums for state employees also slowed significantly after 1989, although the competitive discipline that resulted from employees' enrollment choices was not the only relevant influence. The state also subjected each plan's rate proposal to analysis by an independent actuary and negotiated reasonable rate changes where appropriate. Further, the reduction in average premium growth for SEIP also reflected the resolution of the financial problems of the Blue Cross plan (which introduced a PPO and other elements of managed care) and an economywide slowing in the rate of inflation. The net result of changes to SEIP was to slow the growth in premiums from rates that were above the national average to rates that were below it. Once having adjusted to a lower level of costs, however, the rate of growth in premiums under SEIP might return to its historical trend.

Although proponents of managed competition differ about whether they believe purchasing cooperatives should have the authority to negotiate with health plans about premiums, the ability to negotiate with insurers may be a critical factor in the ability to control costs. Especially in its first few years, the negotiation process in Minnesota sometimes led to significant reductions in rates from those first proposed. Some insurers were not well prepared to defend their rating methods, or made errors in rate-setting calculations or assumptions that would have been costly to the state and its employees if they had gone undetected.

A number of other states also have purchasing cooperatives that incorporate some elements of managed competition.[29] These cooperatives typically have the authority to negotiate premiums with health plans, and their administrators generally believe that this authority is critical in controlling costs. Most introduced rate negotiation only recently, however, subsequent to experiencing rapid increases in health plan premiums. All the cooperatives require plans to submit operating data to justify their premium proposals and some, like SEIP, use independent actuaries to develop target premiums. If a plan's bid is significantly higher than the target

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28. The enrollment shifts that took place in the Minneapolis metropolitan area between 1989 and 1993 were consistent with the shifts that would be predicted in response to enrollees' out-of-pocket premium costs using the estimates developed by Roger Feldman and others, "The Demand for Employment-Based Health Insurance Plans," *Journal of Human Resources*, vol. 24, no. 1 (Winter 1989). See also Roger Feldman and Bryan Dowd, "The Effectiveness of Managed Competition in Reducing the Costs of Health Insurance," in R.B. Helms, ed., *Health Policy Reform: Competition and Controls* (Washington, D.C.: AEI Press, 1993), Chapter 7.

29. See General Accounting Office, *Access to Health Insurance: Public and Private Employers' Experience with Purchasing Cooperatives*, GAO/HEHS-94-142 (May 1994), for a description of existing cooperatives.

premium, officials of the cooperative discuss the discrepancies with representatives of the plan and ask them to submit a best and final offer, which is often substantially lower.

Thus, there is evidence that introducing elements of managed competition, including rate negotiation, can slow the rate of growth in health plan premiums. For its estimates of health reform proposals in the last session of Congress, CBO assumed that a comprehensive plan that had all the important elements of managed competition might ultimately reduce the rate of growth in health spending for people in the managed competition sector by 1 percentage point. That reduction was about one-quarter of the amount by which growth rates exceeded those attributable to population growth and economywide inflation.

Experience under existing systems of managed competition, however, is too limited to assess accurately the magnitude or duration of effects. For one thing, the introduction of significant elements of managed competition has occurred simultaneously with a slowdown in the rate of economywide inflation, so some of the apparent effects of managed competition may only reflect that slowdown. Further, recent experiences in Minnesota have raised concerns that the pressures generated by managed competition may trigger too much consolidation among health plans and providers for genuine competition to thrive. Although the Minnesota legislature recently passed laws intended to establish a statewide delivery system composed largely of competing "integrated service networks," competitors have combined at a much more rapid pace than expected. By 1993, about 78 percent of Minnesotans in managed care plans were enrolled in one of three organizations. The legislature has temporarily banned further horizontal mergers involving any of these three plans.[30]

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30. Office of Technology Assessment, *Managed Care and Competitive Health Care Markets: The Twin Cities Experience*," OTA-BP-H-130 (July 1994). Also see National Health Policy Forum, "Consolidation in the Health Care Marketplace and Antitrust Policy," Issue Brief No. 660 (Washington, D.C.: National Health Policy Forum, 1995).