

GAO

Report to the Chairman, Subcommittee
on Health, Committee on Ways and
Means, House of Representatives

May 1996

PRACTICE GUIDELINES

Managed Care Plans Customize Guidelines to Meet Local Interests



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**Health, Education, and
Human Services Division**

B-265993

May 30, 1996

The Honorable William M. Thomas
Chairman, Subcommittee on Health
Committee on Ways and Means
House of Representatives

Dear Mr. Chairman:

Inappropriate use of medical services can be costly and raise quality of care concerns. For example, a 1988 study found that 14 percent of bypass surgeries were performed inappropriately. To narrow the gap between current and optimal practice, some federal agencies and other organizations develop clinical practice guidelines on the best practices for effective and appropriate care.

Although much has been written about the process of guideline development, little is known about how practice guidelines are used. Because managed care plans, which employ various techniques intended to reduce inappropriate care, are likely sites of guideline use, you asked us to examine (1) what purposes clinical practice guidelines serve and (2) how health plans make use of already published guidelines developed by federal agencies and other organizations.

To develop this information, we interviewed the medical directors at 19 individual managed care plans. We used a judgmental sample to select plans that varied in total enrollment, geographic region, and organizational characteristics. The combined enrollment of the 19 health plans we contacted was about 7 million members, with individual plan membership ranging from 5,100 to 2.2 million members. The plans are located in California, Florida, Illinois, Maryland, Massachusetts, Minnesota, Virginia, and Washington. The health plans represent different types of health maintenance organizations, including staff and group, independent practice association, and network or a mix of models. We also contacted two corporate health plan chains. Because this was not a representative sample of managed care organizations, our results cannot be generalized to the entire managed care community. (See the appendix for a list of managed care plans we contacted.)

We also reviewed the professional literature on clinical practice guidelines, including user surveys sponsored by public and private organizations. In addition, we consulted with representatives from medical

specialty societies, condition-specific organizations, the Agency for Health Care Policy and Research (AHCPR) of the Public Health Service, and national quality of care experts on issues relating to guidelines. We conducted our review from July 1995 to March 1996 in accordance with generally accepted government auditing standards.

Results in Brief

At the managed care plans we reviewed, guidelines served as a tool to help the plans manage physician practice. In selecting aspects of physician practices that could be improved through the use of guidelines, plans identified “problem areas”—that is, those services or conditions that are high cost, high medical liability risk, and high incidence for their patient population. Plans also identified conditions for which practices varied widely among their network physicians. Guidelines selected using these criteria may help plans moderate expenditures and improve their performance across key quality measures in comparison with other plans.

Health plans cited their reliance on federal and other published guidelines as references for producing their own guidelines. However, most plans did not adopt published guidelines—whether federal or from other sources—“as is” but modified them for a variety of reasons. Because published guidelines lacked local clinical input, nearly all plans involved their network physicians in the process of adapting guidelines. Plans also customized guidelines to meet other organizational needs. First, guidelines may not always recommend the most cost-effective therapeutic approaches. Second, some published guidelines were tailored to fit local resource constraints. Third, guideline recommendations may not always apply to the demographic characteristics of the plan’s enrolled population. Fourth, some published guidelines were too long or included graphics and algorithms that were too complex to be useful to busy physicians. Finally, guidelines may need to be updated to reflect the most current information.

For these reasons, plans assert that local adaptation of published guidelines is largely inevitable and may be useful. As a result, some plans changed the guidelines’ presentation, whereas others customized aspects of the recommended treatment. Some experts point out that certain modifications may compromise the integrity of the guidelines and undermine intended improvement in how specific conditions are managed.

Plan managers we contacted commended federal agencies for issuing guidelines. However, they cited concerns about the usefulness of multiple guidelines on the same topic that contain conflicting recommendations.

They also stressed the need for more assessments of medical technologies' impact on patient outcomes. They suggested that the federal government assume a greater role in funding outcomes research and providing summaries and evaluations of scientific evidence to support local plan guideline development.

Background

The Institute of Medicine, chartered by the National Academy of Sciences, has defined practice guidelines as systematically developed statements that assist practitioners in making decisions about appropriate health care for specific clinical conditions. For example, guidelines are available on such topics as the length of hospital stay for maternity care, the need for back surgery, and the management of pediatric asthma. Guidelines are intended to help physicians and others by crystallizing the research in medical literature, evaluating the evidence, applying the collective judgment of experts, and making the information available in a usable form. They are more often written as acceptable therapy options than as standardized practices that dictate specific treatments. Unlike standards of care that have few accepted variations in appropriateness, most guidelines are expected to have some variations because improved outcomes are not necessarily linked by definitive scientific evidence. Where there is a lack of scientific evidence, some organizations make recommendations that reflect expert opinion, while others recommend tests or procedures only when convincing scientific evidence of benefit exists.

Many public and private organizations have been developing guidelines for decades. About 75 organizations have developed over 2,000 guidelines to date.¹ The federal government supports the development of clinical practice guidelines through AHCP, the National Institutes of Health (NIH), the Centers for Disease Control and Prevention, and the U.S. Preventive Services Task Force (USPSTF).³ Private guideline efforts have been undertaken by physician organizations, such as the American Medical Association; medical specialty societies, such as the American College of Cardiology; private research organizations, such as RAND Corporation; and private associations, such as the American Heart Association. Guidelines are also developed commercially by private companies, such as

¹For a compendium of available guideline titles, see American Medical Association, Directory of Practice Parameters (Chicago: American Medical Association, 1996).

²This issue was discussed in Practice Guidelines: Overview of Agency for Health Care Policy and Research Efforts, (GAO/T-HEHS-95-221, July 1995).

³USPSTF merged with AHCP in December 1995.

Milliman and Robertson and Value Health Sciences, which market them to health care organizations.

Given the multiplicity of sources for guideline development, it is not uncommon for more than one guideline to exist for the same medical condition or for recommendations to vary. For example, at least four organizations have issued a guideline on prostate cancer screening. In addition, guidelines tend to reflect the specialty orientation of the guideline developers. In the case of the prostate screening guideline, for example, the American Urological Association, the American College of Radiology, and the American Cancer Society recommend using a prostate-specific antigen test for all eligible patients aged 50 and older, whereas the USPSTF recommends against the routine use of this test.

Recent national surveys indicate that a majority of managed care plans have adopted guidelines and made them available to providers. For example, a 1994 survey sponsored by the Physician Payment Review Commission found that 63 percent of managed care plans reported using formal written practice guidelines.⁴ The results also showed that the use of guidelines was least common among less structured managed care plans because of their more limited ability to influence physicians' practice. Specifically, 76 percent of the responding health maintenance organizations reported using practice guidelines, compared with 28 percent of preferred provider organizations.

Controlling Costs and Improving Performance Are Leading Influences in Guideline Adoption

Health plans we reviewed had three strong motives for adopting guidelines: pressure to moderate expenditures, to show a high performance level across key quality indicators when compared with other plans, and to comply with accreditation and regulatory requirements. These plans view practice guidelines as tools to achieve these ends by promoting greater uniformity within their own physician networks and by helping physicians increase their efficiency, improve clinical decision-making, and eliminate inappropriate procedures.

In selecting aspects of physician practices that could be improved through the use of guidelines, most plans we spoke with identified those services

⁴The Physician Payment Review Commission is charged with advising and making recommendations to the Congress on methods to reform payment to physicians under the Medicare program. The survey was conducted for the Commission in 1994 by Mathematica Policy Research and the Medical College of Virginia. The survey of 108 health care plans included 29 group and staff models, 50 network and independent practice associations, and 29 preferred provider organizations. See Physician Payment Review Commission, *Arrangements Between Managed Care Plans and Physicians: Results from a 1994 Survey of Managed Care Plans* (Washington, D.C.: Physician Payment Review Commission, 1995).

or conditions that are high cost, high medical liability risk, and high incidence for their patient population. They reviewed the provision of such services as hospital inpatient, pharmacy, and ambulatory care—as well as variations in utilization across physicians—to identify such conditions. For example, one plan identified pediatric asthma as a condition for guideline adoption because it is among the most frequent causes of hospital admission and repeat emergency department visits. Human immunodeficiency virus (HIV) infection and high cholesterol are also among the plan's top 10 topics for guideline selection.

Controlling Costs

Several plans we contacted reported cost savings from implementing guidelines that specify the appropriate use of expensive services. In one case, a plan adopted a guideline for treating stroke patients that recommended physical therapy early in the patient's hospital stay. This practice resulted in shortened stays as well as improved outcomes. Another plan adopted a guideline on non-insulin-dependent diabetes to help physicians identify when to provide intensive management rather than routine care to patients with this low-cost condition that can lead to high-cost complications. Another plan used a low back pain guideline that generated savings from the selective use of high-cost diagnostic imaging services.

Plans have also reported cost savings from implementing guidelines that reduce the incidence of acute conditions and the need for more expensive care. One managed care chain we contacted increased the percentage of Medicare enrollees receiving flu shots from 27 to 55 percent in 1 year. The chain reported a reduction of about 30 percent in hospital admissions for pneumonia, savings of about \$700,000, and fewer lives lost.

Improving Performance

Practice guidelines were also heavily used by plans that were being evaluated by employers buying health care for their workforce. Standardized measures for assessing health plan performance are set forth in the Health Plan Employer Data and Information Set (HEDIS), which many employers and other payers view as a report card.⁵ Purchasers can use HEDIS to compare plans across several preventive services measures, including childhood immunizations, cholesterol screening, breast cancer screening, cervical cancer screening, prenatal care in the first trimester,

⁵HEDIS sets specifications for health plans to collect data on 63 indicators that describe performance in five areas: quality, patient access and satisfaction, membership and utilization, finance, and health plan management. HEDIS was developed in 1993 by a committee of health plan representatives and corporate purchasers under the auspices of the National Committee on Quality Assurance.

diabetic retinal examination, and ambulatory follow-up after hospitalization for depression. Of the 19 plans we contacted, 14 collected performance data using HEDIS measures.⁶

The adoption of practice guidelines may help plans improve their performance on HEDIS measures. For example, through the use of pediatric and adult preventive care guidelines, one plan claimed that it raised to 95 percent the number of its physicians meeting appropriate childhood immunization schedules and to 75 percent the number of its physicians meeting mammography screening goals. The plans also reported reducing the percent of breast cancers identified at advanced stages from 30 to 10 percent.

Complying With Accreditation and Regulatory Requirements

In addition, plans' adoption of guidelines is encouraged indirectly through health plan accrediting organizations. Although plans are generally not required to be accredited, many seek a review to satisfy purchasers' demands and enhance their marketability. The National Committee on Quality Assurance's (NCQA) accreditation standards require that plans have guidelines for the use of preventive health services.⁷ The Joint Commission on Accreditation of Healthcare Organizations also has standards that encourage the use of practice guidelines, but not specific guidelines.

States are also influencing plans' guideline use. For individuals covered under workers' compensation, for example, Florida specifies guidance on the use of diagnostic imaging to treat low back pain. As states increasingly require plans to meet certain treatment standards, plans are likely to adopt guidelines that will help them comply with these requirements.

⁶In addition, plans are likely to adopt guidelines that they believe will help them perform better when measured by Medicaid HEDIS, which is tailored to the special needs of the Medicaid population. Medicaid HEDIS allows states to monitor plan performance on a number of additional preventive care services, such as well-child visits, substance abuse counseling, blood screening for diabetes, and post-partum visits.

⁷The standards further specify that these guidelines must be based on reasonable medical evidence, be developed or adopted with the participation of the plan's providers, be periodically reviewed for updating, and apply to the full spectrum of the enrolled population.

Plans Customize Federal and Other Published Guidelines for Local Applicability

Few of the plans we visited had the resources to devote to developing an original guideline, since such an effort can be time consuming and expensive. They preferred instead to customize guidelines that had already been published to ensure local physician involvement and acceptance of the guidelines and to accommodate their individual plan objectives.

In general, health plans customized guidelines by modifying their scope or recommendations or emphasizing one of several therapy options presented.⁸ Because adapted guidelines differ from original guidelines to varying degrees, some experts in the guideline development community caution that certain modifications, when made to accommodate local self-interests at the expense of patients, may compromise the integrity of the guideline.

Some of the plans we visited also expressed a need for more medical technology assessments and outcomes data; however, they lack the resources to assume these activities. They suggested that the federal government enhance its role in these areas.

Physician Input Necessary for Guideline Acceptance

Among the most important reasons for not adopting published guidelines strictly as written is the need for local physician involvement and acceptance. Plan managers we interviewed noted that published guidelines usually lack the input of their local physician community. They recognized that some plan physicians are reluctant to put aside their own practice patterns in favor of those recommended by outside sources, particularly when guidelines are based more on expert opinion than on conclusive scientific evidence. Physicians have confidence in guidelines that they or their peers take part in developing or that are developed by their professional organization.⁹ Therefore, guidelines adopted by a consensus of local physicians are more likely to be accepted.

In one plan manager's view, without the physicians' participation in approving the final product, physicians would not be likely to follow the guideline. In citing the need for physician acceptance of guidelines, one plan manager put it this way: "The practice of medicine is parochial." Similarly, one large plan's medical policy specialist told us that published

⁸If such adaptations have the effect of reducing competition, antitrust issues may arise. See Antitrust Issues Relating to Physicians and Third-Party Payers (GAO/HRD-91-120, July 10, 1991).

⁹To obtain a more "home grown" product, some plans relied on private regional organizations, such as the Unified Medical Group Association in the western states or the Institute for Clinical Systems Integration in Minnesota, that are governed by physicians drawn from medical groups affiliated with local plans.

guidelines need to be modified because they are often not consistent with local standards of care—that they are not “in synch” with how plan physicians are practicing. This position was corroborated by the American Medical Association’s Director of Practice Parameters, who said “a guideline can be developed at the national level, but it has to be localized . . . [I]t comes down to local areas developing the recommendations that suit them.”

Plans selected practice guidelines from a variety of sources, including federal agencies and medical specialty societies, such as the American College of Physicians. Among the health plans we contacted, few had documentation on the methods they used to adapt guidelines. However, some described their approach as typically including some combination of physician consensus¹⁰ and a review of outcomes of clinical studies. When there was controversy or lack of strong clinical evidence, plans reported making greater use of local physician opinion and often performed independent literature reviews to provide additional information. This was particularly likely with a guideline on a rapidly changing treatment method, such as treatment for heart attacks, since clinical developments may overtake the publication of existing guidelines.

Customization Also Driven by Local Organizational Constraints

Plans have a number of other reasons for customizing clinical practice guidelines. These issues include cost considerations, resource constraints, demographic characteristics of enrolled population, simplicity of guideline presentation, and the need to update information contained in published guidelines.

Cost-Effectiveness Concerns

Plans we visited noted that clinical practice guidelines often fail to provide needed information on what is cost-effective care. In its 1992 report, the Institute of Medicine recommended that a clinical practice guideline include information on both the health and cost implications of alternative treatment strategies.¹¹ However, many guidelines produced by federal and private entities do not routinely include cost-effectiveness analysis in the

¹⁰Some plans we contacted said they involved both primary care and specialty physicians, and others said they included nurses and allied health professionals.

¹¹Institute of Medicine, *Guidelines for Clinical Practice: From Development to Use* (Washington, D.C.: National Academy Press, 1992).

recommendation-making process, often because the information needed to conduct cost analysis is not available.¹²

Plans we visited often consider the costs of alternative treatments in deciding how to implement a guideline. In some instances, a guideline may allow choices among equally effective therapeutic options. This was the case with AHCPR's guideline on the treatment of depression in primary care settings, which stated: "No one antidepressant medication is clearly more effective than another. No single medication results in remission for all patients." Instead, the guideline listed several types of drugs that were considered equivalent in clinical effectiveness. In implementing this guideline, one plan we contacted chose the least expensive class of drugs from AHCPR's recommended list as its first-line treatment. The plan also noted that the selected drugs were older and their side effects were better known to its physicians.

Some plans we visited also noted that guidelines may not recommend the most cost-effective health care. For example, some plans adapted a published guideline on total hip replacement that recommended that patients be admitted to the hospital the night before their surgery. The plans changed the recommendation so that patients were admitted the morning of their surgery, even though most of these patients were elderly and lived far from the hospital. One guideline expert argued that this was done to lower the cost of care with little regard for the inconvenience to or impact on the patient.

Available Resources

Local customizing is also influenced by the amount and type of health care resources available to the plan. For example, the USPSTF's colorectal cancer screening guideline recommends a periodic sigmoidoscopy or an annual fecal occult blood test or both. Plans with a sufficient number of physicians who are trained to perform sigmoidoscopies are more likely to choose the recommendation of screening with a periodic sigmoid test and may also perform the fecal occult blood test. However, those without enough trained physicians may decide to select only the fecal occult blood test.

Local Population Needs

Some plans noted that guidelines may need to be tailored to allow for population differences in each locality. They cited research showing that differences in patients' health need to be taken into account since socioeconomically different populations may have different incidence and

¹²USPSTF does not typically include cost as a criterion for their recommendations regarding appropriateness. According to AHCPR officials, when its guideline panels can obtain sufficient information, cost-effectiveness analyses are performed.

prevalence rates of the disease. In particular, the research showed that Native American women required more frequent mammography screening due to their above-average incidence of breast cancer.¹³

Plans may also decide to recommend a wider application of diabetes screening services when their members are identified as having higher risk factors. The USPSTF guideline on diabetes states that there is insufficient evidence that routine screening is necessary. However, members of certain ethnic groups (Hispanics, African-Americans, Native Americans) are among those likely to benefit from screening tests. Therefore, plans may need to adapt guidelines to serve the needs of their more vulnerable populations.

Format Issues

Plans also cited the need to customize to make the information in a guideline available in a more usable form. Guideline documents vary in length, from a three-page brochure to a two-volume manual. Some guidelines consist largely of decision-tree charts, called clinical algorithms, while others are predominantly text, providing a synthesis of scientific evidence, expert consensus, and references to specific research studies.

Sometimes published guidelines are broad in scope and cover not only a full range of medical practices—including diagnosis, treatment, and follow-up care—but also the guideline development methodology and areas for future research. The comprehensiveness of such guidelines, designed to reach the broadest audience of practitioners as well as clinical researchers, may require a book-length presentation. Therefore, plans typically adapted such guidelines to focus on a narrower set of clinical needs, such as the pharmacological management of patients with heart failure. Several plans pointed to AHCPH's 327-page guideline on primary care physicians' treatment of depression as being too long and complicated for busy clinicians. One plan reduced it to 44 pages,¹⁴ another to 20 pages, and a third to 4 pages. (AHCPH has issued a shorter quick-reference version of this guideline, as it does with all its guidelines.)

Format may also be an issue with practice guidelines developed by health plans. A prominent expert on guideline development noted that a mathematically based cholesterol screening guideline could not be

¹³See P. Nutting, "The Danger of Applying Uniform Clinical Policies Across Populations: The Case of Breast Cancer in American Indians," *American Journal of Public Health*, Vol. 84, No. 10, (1994), pp. 1631-36.

¹⁴This plan's adapted depression guideline also contained plan-specific referral information, including phone numbers for specialists and information on sites for care.

implemented because the plan's primary care physicians did not have time to follow the complicated guideline model.

Dated Material

Sometimes the information in existing guidelines is not current. Medical information and technology, such as pharmacological management of a condition, is continually evolving. Yet, published guidelines may not be reviewed and revised on a timely basis. For example, NIH guidelines, called consensus statements, are not reviewed for at least 5 years after issuance. In fact, only about half of the plans we contacted reviewed and updated their guidelines annually. However, one plan published guidelines with an expiration date, forcing the plan to review the guidelines at least once annually.

Local Customization of Guidelines Can Lead to a Range of Variation

The extent of modifications that resulted from plans' customizing published guidelines varied from minimal to substantial. Sometimes the differences between the local and published guidelines were cosmetic. For example, some individual medical groups prepared shortened versions of regionally developed guidelines on plastic cards for quick physician referral. They also removed the original source's name and applied their logo to the documents to further enhance physicians' sense of ownership.

Other modifications were more than superficial. One plan customized AHCPR's HIV guideline by adding drug treatments that were not covered in the original guideline, specifying when primary care physicians should refer patients to a specialist, and providing information on state reporting requirements.

Finally, some changes could be considered substantial. For example, one plan we contacted relaxed the recent chicken pox vaccination guideline from the American Academy of Pediatrics. The Academy recommended that chicken pox vaccinations be given to all healthy children. The plan adapted the guideline by recommending that its physicians discuss the extent of immunity that the vaccine could confer and let parents decide whether they want the vaccine given to their children. The plan maintained that, because the immunity offered by the vaccine might not last a lifetime, it could result in more adult cases of chicken pox, an outcome that could result in serious harm or death. The plan held that it is better for children to contract chicken pox to ensure lifetime immunity than to get the vaccine. An Academy spokesperson commented that no significant loss of immunity has been demonstrated in healthy children who were vaccinated.

At another plan, we found that a customized guideline recommended treatments specifically not endorsed by AHCPR. In its low back pain guideline, the plan recommended that physicians perform an invasive treatment to control pain and an invasive test to diagnose the extent of disc damage. However, AHCPR's guideline stated that the benefits of this treatment and test were unclear and not worth the potential risk of infection to patients. A plan representative told us that their guideline was adapted to address the concerns of the plan's orthopedists, who felt that the invasive treatment and test should have been included in the original guideline.

The Institute of Medicine cautions that adaptations can be done locally for improper reasons, such as to perpetuate insupportable local practices or to further economic self-interest. According to an Institute official,

“ . . . to the extent that local adaptation, broadly defined, moves in the direction of excluding certain types of practitioners . . . or of weakening a guideline document fundamentally by allowing for the provision of marginally beneficial services in situations in which guidelines would probably say ‘this is inappropriate for this class of people’ —then you have what looks to me like a self-serving change.”¹⁵

Some practice guideline experts we contacted agree and warn that adaptations may compromise the integrity of published guidelines. According to one guideline authority,

“ . . . guidelines that recommend the best care practices to optimize outcomes for patients may not necessarily be cost-effective or easy for MCOS [managed care organizations] to implement. MCOS, with a commitment to the bottom line, may make modifications to guidelines to achieve their best interests and not those of patients.”

Plans Suggest a New Focus for Federal Guideline Efforts

Most plan managers we contacted applaud the various guidelines published by public and private entities. The availability of such guidelines makes plans' guideline development efforts easier and less costly. Plans consider published guidelines to be useful summaries of the literature and science, written for a diverse audience.

However, given the multiplicity of guideline sources, many plan managers told us they would prefer to see some federal agencies assume an alternative role in the guideline movement. Plans noted that having many

¹⁵Paul M. Schyre, “Reasonable Expectations: From the Institute of Medicine,” interview with Kathleen N. Lohr, *Quality Review Bulletin of the Journal of Quality Improvement*, Vol. 18, No. 12 (1990), pp. 393-96.

federal and private-sector guidelines on the same topic is an inefficient use of limited resources. Furthermore, some of these guideline recommendations conflict, creating confusion for plan managers and practitioners. Plan managers also told us that their needs for medical technology assessments and outcomes data remain unmet.

Some plan officials suggested that some federal agencies would provide a more useful service to managed care plans by not continuing to produce guidelines. Instead, they should publish and update summaries and evaluations of evidence on medical conditions and services so that plans could use this information to develop and update their own guideline recommendations. Other plans proposed that the federal government increase funding to develop useful practice guideline tools, such as methods to incorporate cost assessments and patient preferences into practice guidelines. Furthermore, several plans asserted that federal guideline funds should be used for outcomes research and technology assessment from which plans could develop their own guidelines. One plan manager said, "This is an area that health plans do not have the resources or expertise to adequately address."

Concluding Observation

Managed care plans' growing interest in practice guidelines is driven by their need to control medical costs, ensure consistency of medical care, and demonstrate improved levels of performance. By using practice guidelines, plans are making a conscious decision about the care they intend to provide, reflecting the trade-off between costs and benefits.

When published guidelines differ from a plan's clinical and financial objectives, they are typically customized with the active participation of the network physicians. Since published guidelines can be inconsistent, outdated, or too complex, local adaptation may be useful. Yet some changes may compromise the quality of patient care. Moreover, local adaptation may undermine the goal of clinical practice guidelines, which is to make medical care more reliant on evidence-based recommended practices and less a function of where a patient receives care.

Comments and Our Evaluation

Comments on a draft of this report were obtained from the American Association of Health Plans, AHCP, and two experts on guideline development and use. The American Association of Health Plans generally agreed with the draft, but suggested language changes where the report addressed the goal of reducing cost. They stated that practice guidelines

are intended primarily to improve the quality and outcomes of care and secondarily to contain costs. We agree that plans use guidelines for quality improvement as well as cost management. AHCPR noted that managed care plans' views on the federal role of guideline activities were similar to the agency's views and its plans for the future. The agency also provided technical comments, and we have incorporated its suggested changes and those of the expert reviewers as appropriate.

As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after its issue date. At that time, we will send copies to interested parties and make copies available to others on request.

Please call me at (202) 512-7119 if you or your staff have any questions. Other major contributors include Rosamond Katz, Donna Bulvin, Mary Ann Curran, Hannah Fein, and Jenny Grover.

Sincerely yours,

A handwritten signature in black ink that reads "Sarah F. Jaggar". The signature is written in a cursive style with a long, sweeping underline that extends to the left.

Sarah F. Jaggar
Director, Health Financing
and Public Health Issues

Managed Care Plans Contacted During Review

Name	Location	HMO model type(s)	Enrollment (as of 1995)	Tax status
Individual managed care plans				
Allina Health Plan	Minneapolis, Minn.	IPA ^a	542,000	Nonprofit
CAC-United HealthCare Plan	Coral Gables, Fla.	IPA; staff; network	204,000	For profit
California Care	Woodland Hills, Calif.	Network	725,000	For profit
Care America	Woodland Hills, Calif.	IPA	216,000	For profit
CIGNA Health Care of Virginia ^b	Virginia Beach, Va.	IPA	38,000	For profit
CIGNA Mid-Atlantic	Columbia, Md.	IPA	110,000	For profit
George Washington University Health Plan, Inc.	Bethesda, Md.	IPA; staff; group	73,000	Nonprofit
Group Health Cooperative of Puget Sound	Seattle, Wash.	Staff; network	510,000	Nonprofit
Harvard Community Health Plan	Wellesley, Mass.	Staff; group	479,000	Nonprofit
Health Partners	Minneapolis, Minn.	Staff; group; network	471,000	Nonprofit
HMO Illinois	Chicago, Ill.	IPA; network	383,000	Nonprofit
Kaiser Mid-Atlantic	Rockville, Md.	Group	342,000	Nonprofit
Kaiser Southern California	Pasadena, Calif.	Group	2,200,000	Nonprofit
M.D.-IPA	Rockville, Md.	IPA	423,000	For profit
Optima Health Plan	Virginia Beach, Va.	IPA	72,000	Nonprofit
PacifiCare	Mercer Island, Wash.	Group	56,000	For profit
Potomac Health	Baltimore, Md.	Network	5,100	For profit
Prudential Health Care Plan, Inc.	Fort Lauderdale, Fla.	IPA	65,000	For profit
Prudential Health Care Plan, Inc.	Jacksonville, Fla.	IPA	65,000	For profit
Corporate health plan chains				
Aetna Health Plans	Hartford, Conn.	IPA; network	1,100,000	For profit
Humana, Inc.	Louisville, Ky.	IPA; network; staff	1,600,000	For profit

^aIndependent practice association.

^bConsolidated with CIGNA Healthcare of Richmond, Va.

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