The Changing US Health Care System: Challenges for Responsible Public Policy

MARSHA GOLD

Mathematica Policy Research, Washington, DC

THE "MANAGED CARE BACKLASH" ARGUABLY WILL be remembered as the most prominent health policy concern of 1998 (Blendon, Brodie, Benson, et al. 1998). Yet, in the highly charged environment that surrounds the debate over the future of our health care system, there is a dearth of concrete, "objective" facts on what is changing and why. The growth of managed care, and its associated changes in provider organization, promises to enhance care delivery, particularly when it is combined with medical and technological innovation, but it also poses challenges.

The opportunities stem from the potential offered by these changes to integrate the infrastructure of care delivery and clinical activities, thereby greatly improving health care delivery and fostering accountability for performance and outcomes by all parties.

The challenges arise because consumers are being asked to modify how they seek care and relate to providers. Providers similarly are being asked to reconfigure the system of care delivery. They are experiencing intense pressure to complete these transitions rapidly, which only increases the potential for confusion and dissatisfaction.

The Milbank Quarterly, Vol. 77, No. 1, 1999

Taking advantage of the opportunities today and meeting the challenges connected with rapid reconfiguration, while avoiding the associated risks, are thus critical goals, whose achievement is contingent upon the efforts of all groups with a stake in the health system.

This paper briefly highlights evidence on the main characteristics and trends in the health care system today, particularly the challenges these create for responsible public policy. I have organized the discussion around five key themes and their supporting evidence:

1. *Continued pluralism*. Despite current change, the central features of the US system remain the same. Specifically, it is a system that continues to be built around the concept of pluralism, a substantial private sector role, and the continued presence of a large uninsured population, all of which influence the public debate and shape feasible policy alternatives.
2. *A strong purchaser role and push to managed care*. The influence of purchasers, both public and private, dominates health care policy today. In their drive to contain costs, purchasers have viewed managed care as the major alternative to increased cost sharing, a view that has led them to encourage the growth of an increasingly complex set of managed care products in order to foster growing managed care enrollment.
3. *Shifts in provider organization*. The expansion of managed care, together with technological and other change, has led to major reorganization, both of the form in which providers practice and of the settings in which care is delivered.
4. *Evolving, but lagging, change in clinical practice*. Clinical delivery also is evolving in response to the construction of more accountable health care systems. However, because it is harder to change practice than structure, the pace of clinical integration and of changes in practice lags several steps behind that of structural overhaul. This discrepancy creates challenges in an environment in which purchasers seek immediate constraint of the rapid growth in health care costs.
5. *Shifting oversight structures*. The pace and nature of change complicate and challenge the development of appropriate oversight mechanisms, forcing the respective federal and state agencies to adapt their roles amid widespread disagreement about the appropriate form of regulatory response.

The implications of the evidence on the changes inherent in these themes can and should be debated. I conclude by arguing that current public policy debates are less than honest in dealing with the inherent conflicts that exist in today's health care system. Managed care is not, and never was, a "silver bullet" for cost containment, particularly in the short run. If purchasers and policy makers continue to expect more of managed care than it can deliver, managed care strategies will soon be deemed a "failure." Unfortunately, discarding managed care as an all-purpose, rapid solution still leaves us with this central, underlying problem: how do we provide more for less and for whom, particularly as our technological know-how is rapidly exceeding the amount that most of those who ultimately pay the bills believe they are able or willing to spend.

The Context: A Pluralistic Health Insurance System with Gaps in Coverage

The health care system of the United States has been, and continues to be, built on the principle of pluralism; coverage for the nonelderly is an employer-based, mixed private and public model of both insurance and delivery. Most Americans under the age of 65 receive their health insurance benefits through their own employment or that of their spouses (US General Accounting Office 1996; 1997). About 6.5 out of every 10 Americans under age 65 are covered by private insurance, both group and individual; the rest are either uninsured or are covered by Medicaid (US General Accounting Office 1997).

The pluralistic structure of the insurance system in the United States means that some individuals "fall through the cracks." Because of the link between insurance coverage and employment and other sociodemographic characteristics, the United States has always had a sizable number of individuals who remain uninsured for either all or part of a year. The most recent estimate is that 43 million individuals under 65 had no health insurance in 1997, up from 41 million in 1996 (Employee Benefits Research Institute 1997; 1998). This reflects 18.3 percent of the population under 65. Fifteen percent of all children are uninsured.

The existence of this large population of uninsured individuals is a recognized problem of public policy, and it is one that is growing worse today. Research strongly supports the link between insurance coverage

and access to health care (US Office of Technology Assessment 1992; Schoen, Lyons, Rowland, et al. 1997). Both the number and share of those without coverage are up from 1988, when 32 million were uninsured (Prospective Payment Assessment Commission 1997). In addition, the share of those experiencing a lapse in coverage during the year (12 million in 1992) was up. Most recently, the share of children who are uninsured has grown disproportionately, although estimates of such growth and explanations for it vary (Lewis and Ellwood 1997). This trend may indeed be reversed as the Child Health Insurance Plan is implemented by states, but the growth in the numbers of uninsured is likely to continue. Cooper and Schone (1997) show that the current drop in the rate of private insurance coverage among the employed population reflects a decrease in take-up rates (count of those offered insurance who do not take it). Costs clearly influence coverage levels, and these in turn influence access through their effects on the out-of-pocket costs of care. Thus, cost-control initiatives are inevitably intertwined with the search to expand coverage. The more expensive coverage becomes, the harder it will be both to finance it and to maintain coverage levels.

Managed Care as the Main Alternative to Greater Cost Sharing

Health care costs have been tackled more aggressively by health purchasers in the 1990s. After a rocky beginning to the decade, group purchasers' health care costs eventually stabilized, but are now starting to rise again. Group purchasers' costs are reflected in the premiums they pay as offset by premium contributions from those covered. Premiums in turn reflect trends in health care costs that are adjusted for changes in benefits or cost sharing and modified when health plans make strategic pricing decisions to allow rates to depart from cost experience. Because there is a lag in accounting for costs, changes in premiums may not catch up with cost experience for 18 months or more.

Through 1994, health insurance premiums rose more rapidly than health care costs (Ginsburg and Pickreign 1997). The average private health insurance premium increased 10.9 percent in 1992, 8.0 percent in 1993, and 4.8 percent in 1994. In 1995, the drop in premiums brought them even with declining health care costs (increasing about

2 percent annually at that time, down from a high of 7.9 in 1992). In 1996, premium growth was almost flat (0.5 percent) as costs continued to escalate at 2 percent annually.

HMO operating margins are declining. In 1994, nearly 90 percent of all HMOs were profitable, but by the third quarter of 1997, only 49 percent of plans were, and the average margin was 1.2 percent. Premiums are now beginning to rise to offset the costs of health plans, although the average increase of 3.3 percent is lower than some perceive (Ginsburg and Gabel 1998; InterStudy 1998a; 1998b). How high these increases will be allowed to go is a debatable issue. Some believe that marketplace pressures are such that health plans may find it difficult to raise premiums substantially. In the first part of the 1990s, group purchasers responded to rapid escalation in premiums by increasing employee cost sharing and by switching over to managed care products in the hope that such moves would restrain costs. Because purchasers appear committed to restraining the rise in premiums, they will undoubtedly continue to apply pressure on health plans to become more cost efficient, but if the plans fail to respond, purchasers may perceive their only alternatives to be increasing cost sharing or dropping coverage.

The Rise in Employee Cost Sharing

Employees now contribute more to the premiums for their coverage (US General Accounting Office 1997; Ginsburg and Gabel 1998). In 1996 employees paid, on average, about 30 percent of the premium for family coverage and 22 percent of the premium for single coverage. This compares with 26 percent and 10 percent, respectively, in 1988. Between 1980 and 1993, the share of those with no-cost single coverage dropped from 72 percent to 37 percent. The share of employees with fully employer-funded family benefits dropped from 51 percent to 21 percent over this time period. During the period from 1992 to 1996, the dollar contribution to employee cost sharing increased at an average annual rate of 7.2 percent, compared with premium increases of 3.8 percent (Ginsburg and Pickreign 1997). Controlling for product by imposing cost sharing through deductibles, increasing the amout of coinsurance, and expanding the copayments is a growing reality (Jensen, Morrissey, Gaffney, et al. 1997). The implications of this for out-of-pocket costs are not clear because of the shift to managed care, which is designed to

produce results in different amounts and kinds of cost sharing, depending on whether enrollees use in- or out-of-network providers. For the first time since the late 1980s, however, consumer out-of-pocket spending rose in 1997 (Levit, Cowan, Braden, et al. 1998).

The Shift to Managed Care by Group Purchasers

Group purchasers in both the private and public sectors are shifting to managed care products in order to gain control over rapid growth in premiums. By managed care, we mean network-based arrangements associated with health benefit products, such as health maintenance organizations (HMOs), preferred provider organizations (PPOs), and point-of-service (POS) hybrid arrangements, including the provider-sponsored organizations set up to contract or compete with entities offering these products. Managed care integrates, to different degrees, the functions of health insurance and health care delivery (Shortell and Hull 1996; Gold, Nelson, Lake, et al. 1995; Weiner and deLissovoy 1993).

Traditional indemnity insurance now covers a minority of the individuals enrolled in employment-based plans, and almost all indemnity plans now include utilization review. As shown in table 1, the share of individuals enrolled in managed care products of any type (HMO, PPO, or POS) rose from 29 percent in 1988 to 73 percent in 1995. However, recent analysis shows that employers moving to managed care do not necessarily offer their employees strong incentives to choose lower-cost

TABLE 1
Distribution of Insured Workers by Type of Health Plan from 1988 to 1995

Type of product	1988 (%)	1993 (%)	1995 (%)
HMO	18	22	28
PPO	11	20	25
POS	N/A[a]	9	20
Conventional	71	49	27

[a] Included in the PPO count.
Sources: Jensen, Morrissey, Gaffney, et al. 1997; Gabel, Ginsburg, Hunt, et al. 1994.

plans (Hunt, Singer, Gabel, et al. 1997). In 1995, only about a fifth of employees worked for firms that did not subsidize, through their contribution strategies, the cost difference for the more expensive options among their multiple health plans offerings. Subsidization occurs, for example, when employers contribute an equal percentage of premiums, which may vary, rather than an equal dollar contribution.

Historically, managed care products have been most prevalent in the medium and large employer markets, with limited penetration occurring in the small employer (under 100 employees) market. This situation is now changing (Gabel, Ginsburg, and Hunt 1997; Morrissey and Jensen 1997). Only 29 percent of employees in firms with under 100 employees were in conventional indemnity plans in 1996, down from 50 percent in 1993 and 88 percent in 1988. After analyzing factors contributing to the increased use of managed care among small employers, Morrissey and Jensen (1997) concluded that employer choice was sensitive to both price and market experience and that the likelihood of managed care's being offered correlated with the existing degree of its market penetration.

Not all employers structure their health benefits to provide a choice of health plans. Nationally, about 53 percent of employees covered in the workplace in large firms, and 20 percent in small firms (under 100 workers), are offered a choice among plans (Gabel, Ginsburg, and Hunt 1997). Thus, the shift from conventional to managed care products in small employer plans typically has been achieved by substituting a managed care product for the traditional indemnity offering.

The Growing Diversity in Health Insurance

In the effort to move a large share of individuals rapidly out of conventional indemnity insurance plans, purchasers have encouraged the development of an increasingly diverse set of managed care products. Conventional indemnity health insurance was a financing system that paid for services but did not otherwise attempt to influence what services should be received, who should provide them, and how they should be organized. With the shift to managed care, there has been an increase in health insurance products with features that have been designed to influence care delivery more directly. Even conventional indemnity insurance, as previously noted, usually now includes utilization review.

The amount and kind of change from conventional insurance and care processes varies considerably across managed care products. Weiner and deLissovoy (1993), for example, propose a taxonomy that categorizes health insurance products in health plans as follows:

- Does their sponsor assume financial risk?
- Does an intermediary assume financial risk?
- Do the associated physicians assume financial risk?
- Are consumers restricted in the providers they may select?
- Are significant utilization controls placed on a provider's practice?
- Are plans obligated to arrange for care provision (versus just pay for any care received)?

Traditional PPO products, for example, barely differ from conventional insurance with utilization review, except for the fact that PPOs use a defined provider network that agrees to fee discounts for enrollees, whose cost sharing also is lowered when they seek care from those in the network. HMOs, in contrast, are capitated and are responsible for providing or arranging health care service for a defined population, often transferring some of the risk to intermediaries and individual physicians. HMO care systems also are more likely to employ features, like gatekeeping and focused studies for quality improvement, that depart from fee-for-service (FFS) practice. However considerable diversity exists within and across health insurance products, making generalization difficult.

In response to purchaser interest, health plans increasingly offer a range of health insurance products, rather than a single product. In 1996, 75 percent of the HMOs offered a POS product; 59 percent, a PPO product; and 59 percent, an indemnity product (American Association of Hospital Plans 1995/96). Many firms that are offering multiple products had three or more options available, typically a traditional HMO, a traditional PPO, and a POS HMO (then called an "open-ended HMO") (Gold and Hurley 1997).

In explaining their motivation for product diversification, firms most commonly cited a desire to expand consumer choice, followed by a desire to ease consumers' transition to managed care. In either case, the strategy was a response to the marketplace.

The Changing Structure of Provider Practice and Organization

The transition to managed care and the increased competition among organized systems of care can be viewed in two ways: (1) through the structure of the arrangements made by managed care plans with providers; and (2) through changes to the form of their practices that providers have made in order to accommodate the plans and to gain more leverage in negotiations with them. I will examine the changes from both angles.

Increased Health Plan Focus on Network-Based Delivery

The growth of managed care means that more consumers are covered through health insurance plans in a managed care product that links coverage in some form to the use of a defined provider network. In HMO products, coverage is limited to care provided through the network unless the individual is referred by a health plan provider (with exceptions for emergencies and out-of-area services). In PPOs and POS products, cost sharing is less if network-based providers are used, a feature absent from conventional indemnity coverage.

Complex Provider Networks. Provider networks used by managed care plans are complex, with individual plans typically using many different types of provider contracts (Gold, Hurley, Lake, et al. 1995; InterStudy 1997a; 1997b). In 1994, half of all HMOs (and two-thirds of PPOs) contracted with physicians, both directly through individual contracts and indirectly through various forms of intermediate entities (Gold, Hurley, Lake, et al. 1995). Most often, these contracts were with groups and provider IPAs, but almost half the HMOs (and a smaller share of PPOs) had contracts with physician–hospital organizations (PHOs). InterStudy (1997a; 1997b) estimates that about 18 percent of those enrolled in HMOs in early 1997 (11.6 million individuals) were cared for through various forms of organized delivery systems.

In early 1997, 77 percent of HMOs contracted with large groups; 57 percent, with PHOs; 30 percent, with management service organizations (MSOs); and around 20 percent each, with foundations (usually a hospital-affiliated entity), integrated health care organizations (with both

insurance and provider arrangements), and physician practice management firms (InterStudy 1997a; 1997b). Traditional categories of HMO models (group, staff, network IPA) are less relevant today. The group–staff model is the form traditionally associated with large prepaid group practices that typically are exclusive to the HMO. The HMO accounts for only a small share of physicians' practices in network IPAs. These network IPAs are made up of independent providers in community-based practices. In 1994, however, 55 percent of group–staff model HMOs made some use of network IPA arrangements within their traditional HMO product (Gold, Hurley, Lake, et al. 1995).

Empirical information about the growth and form of provider-sponsored entities is relatively limited, although efforts to conceptualize this evolution are under way (Robinson and Casalino 1996; Miller 1996; Shortell and Hull 1996). For the moment, provider entities mostly contract through health plans with purchasers. For the most part, states have ruled that provider entities seeking to assume direct risk from group purchasers (rather than downstream risk from managed care entities) must obtain an HMO license. Although provider HMOs exist, they tend to be newer and smaller than other HMOs (Physician Payment Review Commission 1997).

Thus, direct provider contracting, to the extent it exists, tends to involve PPOs and POS products that are more likely to be self-insured under ERISA. However, this may change in the future because the Balanced Budget Act of 1997 expands the authority for provider-sponsored organizations in Medicare; states are also developing a legal infrastructure through which providers can offer managed care products (Christensen 1998; Physician Payment Review Commission 1997).

Importance of Primary Care Providers. The growth of managed care has elevated the interest in primary care physicians, as reflected in a focus on "generalist" rather than "specialist" providers. Primary care physicians play a central role in HMO products (less so in PPOs and POSs). In 1994, in about nine of ten HMOs, primary care physicians were responsible for authorizing referrals to specialists (Gold and Hurley 1997), and enrollees were required to choose a primary care provider. In contrast, only about 34 percent of PPOs offered a "gatekeeper" PPO product. About half the network IPA HMOs and two-thirds of the group–staff HMOs required preauthorization of specialist services in 1994 (Gold, Nelson, Lake, et al. 1995). Also at that time, over half the HMOs (21 percent of PPOs) said they had taken specific steps to expand

the scope of primary care practice, although most characterized any expansion as moderate rather than great (Gold, Nelson, Lake, et al. 1995). Thus, the current shift in health insurance products should heighten demand for primary care providers relative to specialists.

Shifting Financial Structures and Incentives in Health Plan Contracting. Payment methods that modify traditional indemnity plan FFS payments (criticized for encouraging overuse of services) are the norm in HMOs, although to a lesser degree in PPOs and other managed care products that continue to be dominated by conventional FFS payment. Only one in ten PPOs uses a payment method that transfers risk to physicians (American Association of Health Plans 1996; Gold, Nelson, Lake, et al. 1995). Whether the PPO itself bears any financial risk through its contract with the group purchaser is not clear. Common wisdom has been that such arrangements are rare, both because of regulatory restrictions (outside ERISA) and product strategy. However, an AAHP study found that 40 percent of PPOs responding to a survey were at some, but typically not full, financial risk as a plan.

HMOs typically receive a capitated payment per member per month, in return for which they provide, or arrange for, all health care services. In turn, HMOs often transfer, in various ways, some of this risk to the intermediate entities and individual providers in their network. These arrangements typically are complex, with multiple elements (Gold 1999). The transfer of risk and financial incentives is determined by the interaction of various features of payment:

1. The basic method of payment (FFS, salary, or capitation, which covers a defined and often limited subset of services)
2. Additional financial incentives in the form of withholds or bonuses (distributed on the basis of multiple measures and distribution formulas among a shared risk pool, whose size varies from one physician to all physicians in a plan)
3. Alternative mechanisms to limit the amount of risk through stoploss arrangements or to adjust it by enrollee characteristics (often a relatively rudimentary adjustment based on age, sex, or similar variables) (Gold, Nelson, Lake, et al. 1995)

The form of all three features changes as they are translated through various intermediate contracting entities to individual physician prac-

tice groups, and ultimately to an individual physician. Moreover, health plans do not use the same arrangements uniformly across their providers.

In general, individual primary care physicians in traditional group–staff HMOs are paid by capitation or salaried arrangements, either directly or through intermediate entities. In 1994, all but 10 percent of network IPAs used either capitation or bonuses and withheld payments (withholds), sometimes both (Gold, Nelson, Lake, et al. 1995). Common performance indicators employed by half or more of HMOs using withholds or bonuses include measures of use and cost, quality of care, and patient complaints, as well as consumer surveys (Gold, Nelson, Lake, et al. 1995). About half the network IPAs used capitation to pay their primary care physicians (InterStudy 1997a; 1997b; Gold, Nelson, Lake, et al. 1995). The rest most often used FFS payment methods. Among network IPA HMOs, non-gatekeeper models were twice as common. Capitation was more common in plans contracting with group practices (InterStudy 1997a; 1997b).

HMOs still tend to pay individual specialists on an FFS basis, but elements of risk are being introduced. HMOs also are starting to capitate or competitively bid for specific specialty services like mental health, radiology, podiatry, and cardiology (InterStudy 1997a; 1997b; Gold, Nelson, Lake, et al. 1995).

Characteristics of Current Practice and Their Effects on Physicians

Physician practice is shifting away from its historical roots in self-employment toward group and salaried arrangements that are better positioned to meet the current demands on providers stemming from both the shift to managed care and the growth of medical technology. Given the magnitude of these changes and their associated implications both for physician income and autonomy, it therefore is not surprising to find studies showing that physician satisfaction has declined in response to the growth of managed care. Whether these are transitional or more permanent effects is unclear.

Trend toward Salaried and Group Practice. The physician employment trend is moving away from solo, self-employed practice toward both physician-owned groups and organizations owned by others (Emmons and Kletke 1997). From 1988 to 1996, the share of salaried physicians rose from 28 percent to 48 percent nationally. A consistent one-quarter

of these were in physician-owned groups, although the share of physicians in this form of practice grew from 7 percent in 1988 to 11 percent in 1996. The rest worked for medical schools and universities, hospitals, staff–model HMOs and others, or as independent contractors. Emmons and Kletke estimate that the size of noninstitutional physician practices will increase by as much as 50 percent in 10 years.

Solo practice has been declining, yet many physician still are in small group or individual practice (Emmons and Kletke 1997). Among physicians who were either self-employed or in physician-owned groups, the proportion in solo practice declined from 49 percent to 41 percent from 1988 to 1996, whereas the share in groups of five or more physicians increased from 24 percent to 33 percent. The existence of very large groups pushes the mean practice size to 14.5, compared with a median practice size of three. Only 10 percent of physicians, however, practiced in groups of 20 or more in 1996 (up from 8 percent in 1988).

Almost a fifth (19 percent) of physicians in one national survey said their practices had undergone a major change over the past two years, such as merger, affiliation, or acquisition (Colby 1997). The most common reason given by these physicians for making the changes was to improve their negotiating positions vis-à-vis health insurers or hospitals. Other commonly cited reasons were expanded markets, broadened mix size, improved quality of care, ability to offer an HMO, and increased access to capital.

Growing Reliance on Managed Care Contracts and Revenue. Few physicians are unaffected by the shift in health insurance products. In 1996, 88 percent of physicians had at least one managed care contract, up from 85 percent in 1995 and 61 percent in 1990 (Emmons and Wozniak 1997). Most physicians have contracts with multiple health plans, some with many. According to one recent national survey, half the physicians are members of five or more separate plans, and a quarter have contracts with ten or more plans (Collins, Schoen, and Sandman 1997). In many instances, physicians thus are being asked to respond to the different, and potentially conflicting, requirements and incentives of multiple health plans that account for one or more patients in the practice.

Managed care constitutes a growing share of practice revenue. The American Medical Association estimates that managed care now accounts for 39 percent of spending on physician services (Emmons and Wozniak 1997). From 1990 to 1996, the share of revenue from managed care (among participating physicians) increased from 28 percent to

44 percent; the 10 percent increase from 1995 to 1996 (from 33 percent to 44 percent) was particularly striking. Although larger practices (25 or more physicians) remain more dependent on managed care than smaller ones, the gap is narrowing.

In addition, capitation revenue is becoming more important for physicians, even though the entities in which physicians practice are more likely to receive capitation payments than are individual physicians (Simon and Emmons 1997; Remler, Donelan, and Blendon 1997; Lake and St. Peter 1997). Thirty-six percent of physician practices in 1996 received some revenue from capitation, which accounted for 25 percent of their total revenue (up from 19 percent in 1995) (Simon and Emmons 1997). Larger practices are more likely to have such arrangements, with over half (56 percent) of groups of 25 or more physicians receiving capitation revenue, which accounted for 25 percent of their revenue. Other studies yield consistent conclusions, although specific estimates differ (Remler, Donelan, and Blendon 1997; Lake and St. Peter 1997).

The Effect of Managed Care on Income and Autonomy. Physician reactions to market changes are influenced by the effects of these changes both on their incomes and on their practice autonomy. Physician incomes are growing less rapidly than in the past, and incomes of specialists are declining relative to those of primary care physicians. The most recent data suggest that the 3.8 percent absolute drop in median physician income that occurred in 1994 was reversed in 1995, when incomes rose 6.7 percent (Moser 1997). The incomes of primary care physicians (especially general and family practitioners) are growing more rapidly than specialists' incomes. Specialists, in particular, are finding it harder to get managed care contracts. It is unclear that these income shifts are due solely to managed care, particularly in light of the adoption of the Medicare Relative Value Schedule, the excesses in physician—particularly specialist—supply, and the fact that the pace of growth of physician supply has outstripped that of the general population (Randolph 1997).

Through its network design, managed care modifies how physicians attract and retain patients. In a nationwide survey of physicians in 1996, 13 percent said they had been denied a managed care contract; the rate jumped to 20 to 22 percent for internal medicine subspecialists, surgical subspecialists, and other specialists (Emmons and Wozniak 1997). Fewer physicians are involuntarily dropped when they are already in a network, although this also is more likely to happen to specialists (6 per-

cent of physicians report this experience). It is unclear what effects such attrition has on continuity of patient care because the statistics do not indicate how many patients actually were affected by these events and had to change providers. Although denials or terminations may be common, they do not appear to preclude most physicians from participating in managed care (Bindman, Grumbach, Vranzien, et al. 1998).

The Shift from Inpatient Facilities to Health Systems

Community hospitals now are less dominated by inpatient services and more likely to be part of broader-based systems of care. In the 10 years from 1984 to 1994, hospital days declined by 19.3 percent, whereas outpatient visits increased by 81 percent (American Hospital Association 1996). Ambulatory surgery increased by 168 percent between 1983 and 1993, whereas inpatient surgery declined by 33 percent (American Hospital Association 1995). Inpatient services represented just 70 percent of spending in community hospitals in 1995, compared with 87 percent in 1980 (Prospective Payment Assessment Commission 1997). Although spending for inpatient and outpatient services continues to be the largest component of national health expenditures, it grew by only 2.9 percent in 1997—a rate that is slower than for spending on any other kind of personal health care (Levit, Cowan, Braden, et al. 1998).

Further, the free-standing independent hospital is increasingly rare as hospitals affiliate and become part of health systems. Analyzing trends from 1990 to 1994, Corrigan, Eden, Gold, et al. (1997) found consolidation both within hospitals in national systems and among other hospitals, but they uncovered little change in the overall share of each. Of 248 multihospital systems, only 26 were nationally owned. Within the national sector, a significant share of activity was associated with the growth of Columbia/HCA, a state of affairs that has been reversed. Hence, future trends are unclear.

Provider consolidation is undertaken in order to improve the ability of hospitals to participate in managed care. In 1996, 26 percent of hospitals had PHO arrangements, up from 6 percent in 1995; 8 percent of hospitals owned and operated their own HMO; and 18 percent, their own PPO (Prospective Payment Assessment Commission 1997). About a fifth (21 percent) of hospitals were in health networks in 1994, up from 11 percent the year before (American Hospital Association 1996).

Such networks are broadly defined by the American Hospital Association as groups of hospitals, physicians, other providers, insurers, and/or community agencies that work together to coordinate and deliver a broad spectrum of care to the community.

The extent of integration activity varies greatly across states and regions, and many different models are in place. Although as many as 4,100 hospitals are involved in one or more network or health system, the extent of integration varies considerably across the entities (Bazzoli, Shortell, Dubbs, et al. 1997). Looking for three distinctive features of integrated systems—distinct organizations that are linked by contract or ownership and share some risk—Morrissey and colleagues (1996) concluded that truly integrated relationships are still relatively rare. They found that whereas just under a quarter of hospitals (23 percent) are in one or more of the integrated arrangements studied, 15 percent are in the loosest form (physician–hospital organization), 8 percent are in management service organizations, 4 percent are in foundation models, and less than 3 percent are in integrated health care organizations.

Although managed care is becoming more important to hospitals, its impact on their revenue has been limited by the fact that Medicare accounts for 40 percent of hospitals' income, and managed care has not extended as deeply into the Medicare market as it has elsewhere (Prospective Payment Assessment Commission 1997). In 1993, 84 percent of community hospitals had at least one managed care contract; 32 percent had 10 or more (Morrissey, Alexander, Burns, et al. 1996). Between 1990 and 1995, the share of community hospitals with an HMO contract increased from 47 percent to 70 percent; the share of those with a PPO contract increased from 52 percent to 80 percent; and the share of those with either increased from 62 percent to 87 percent (Prospective Payment Assessment Commission 1997). The proportion of rural hospitals with such contracts increased from 40 percent to 78 percent over the same period. However, on average, community hospitals received only 11 percent of their revenue from managed care (defined as HMOs and PPOs) in 1993. Eighty-three percent received 5 percent or less of total revenue from capitated plans, and 42 percent received 5 percent or less from managed care more generally.

Hospital involvement in integration is strongly correlated with a higher percentage of managed care revenue. Morrissey, Alexander, Burns, et al. (1996) suggest that the line above and below 15 percent of revenue

from managed care distinguishes both the proportion of hospitals initiating activities to integrate their services and the strength of those activities. The more recent growth of managed care undoubtedly signals its increased importance as a revenue source for hospitals today.

Shifting Demands on the Health Care Workforce

The changes in medical practice and health care delivery shift the demands on the health care workforce. Since 1994, for example, hospitals have been reducing the size of their workforce as they reduce beds and inpatient capacity (Prospective Payment Assessment Commission 1997). Hospitals are restructuring and using fewer registered nurses and, in some cases, fewer licensed practical nurses, often filling these positions with aides and clerks.

The shift toward primary care and medical group practice should, in theory, increase the demand for nurse practitioners and physician assistants. Research shows, for example, that such providers are more likely to be used in HMOs constructed on multispecialty groups (Felt-Lisk 1996). However, reactions to health plans' efforts to provide direct and independent access to such providers suggests that expansion of their roles in today's market may be contentious (Freudenheim 1997). Yet, despite the shift in emphasis toward primary care and away from specialty care, most available evidence suggests that few specialists are moving into primary care practice (Donelan, Blendon, Lundberg, et al. 1997; Simon, White, Gamliel, et al. 1997). Thus, unless the current supply of primary care physicians proves sufficient, or until specialists change their focus, the pressure to expand and diversify the primary care workforce could increase.

Changes in Clinical Delivery versus Structural Change

Clinical delivery, like the administrative structures of health care, can be viewed from both the health plan and the individual provider perspective. I will review each in turn.

Clinical Features of Managed Care Plans

Health insurance products, particularly those that are most tightly managed, are developing a clinical infrastructure to manage utilization and

improve quality of care. There is considerable—although not very deep—evidence that HMOs in particular are strengthening their internal quality oversight structures by carrying out targeted quality improvement initiatives, introducing practice guidelines, implementing disease management programs, improving their information infrastructure, and generating performance measures.

Growth in Continuous Quality Improvement. In 1994, a high proportion of HMOs (and a smaller percentage of PPOs) reported that they employed various care management techniques traditionally associated with quality improvement (Gold, Hurley, Lake, et al. 1994; 1995). Over 90 percent of HMOs (59 percent of PPOs) had targeted quality improvement initiatives; virtually all HMOs (and 45 percent of PPOs) conducted clinically focused studies on a regular basis. Profiling was used by over three-quarters of HMOs (half the PPOs), most commonly for quality-focused goals like systemwide improvement and physician feedback (other uses included outlier screening and decisions on contract renewals). Three-quarters of HMOs (about a quarter of the PPOs) used formal written practice guidelines. Over four-fifths of these said they monitored compliance with guidelines, and an equal proportion of those that did said they met with physicians to review results. HMOs also had standards for medical records. Two-thirds used a standardized problem list (a third of the PPOs). Most reviewed records for accuracy and had standards for record organization and content. Evidence and common wisdom suggest that both the use and the sophistication of these techniques have grown since then.

There also is more current interest in disease management; half or more of HMOs have implemented programs for asthma, diabetes, and high-risk pregnancies (InterStudy 1997a; 1997b). Programs for depression constituted the fastest-growing program type between 1996 and 1997, a period when the proportion of plans that had implemented such programs grew from 6 percent to 17 percent. Use of patient satisfaction measures as evaluation tools for disease management programs increased markedly between 1996 and 1997. Eighty percent of HMOs with disease management programs in 1997 said they conducted such surveys. Measurement of patient well-being also increased. Undoubtedly, much of this growth in programs and measurement has been spurred by the burgeoning influence of the National Committee for Quality Assurance (NCQA) on purchasers, particularly large purchasers, which has pushed HMOs to provide evidence of the value of the managed care product.

Rigorous assessment of quality improvement programs requires independent validation. One major weakness of surveys like the ones cited above, however, is that the data are self-reported and do not include an assessment of either the aggressiveness of the program or its impact on clinical practice. Practices may be overstated, and the quality of program development cannot be assessed. Accreditation provides some independent validation of the rigor of programs. Over 330 HMOs have been accredited by the NCQA. These HMOs enroll 45 million individuals, or 75 percent of HMO enrollees (National Committee for Quality Assurance 1997). Yet linkages between organizational structure and quality of care remain undocumented in many key areas (Flood 1994). Further, analysis suggests that an orientation toward continuous quality improvement has not achieved the reach of influence that is required to make a sizable impact (Blumenthal and Kilo 1998), as its growth has been constrained by the difficulty of risk adjustment (Dudley, Miller, Korenbrot, et al. 1998) and by regulatory limitations (Brennan 1998).

The Expansion of Technological Capability with the Computer Revolution. Advances in computer technology are generating better ways of communicating vital patient information among providers and, in so doing, are enhancing health delivery and efficiency (Blumenthal 1997). Although communication tools and associated advances, such as computerized medical records, are still limited by a number of technological, political, and administrative issues (including concern for patient confidentiality), they may foster coordination of care and better use of existing information, thus reducing duplication of services and the adverse outcomes associated with interactions among treatments or conditions. Similarly, telemedicine may change algorithms now used in the care of specialized conditions or of geographically or otherwise isolated populations.

There also is growing evidence that the popularity of the Internet could facilitate a major shift in the relationship between consumers and their providers and health plans. Healthfinder, the new Internet site of the Department of Health and Human Services, for example, has a searchable index and locator for news, publications, on-line journals, support and self-help, on-line discussion, toll-free information numbers, and links to over 550 other sites, including 200 federal and 350 state, local, nonprofit, university, library, and other health information sources (*Employee Benefit Plan Review* 1997). The availability of clinical information has led patients to take a more active role in asking pro-

viders about particular treatments (*Consumer Reports* 1996a; 1996b). A cancer patient, for example, may search the National Cancer Institute's Internet site or call a toll-free number to receive the latest information on cancer diagnosis and treatment, including information on specific clinical trials they may be eligible for. Some providers are using e-mail to communicate with chronically ill and dying patients and with their survivors (Fein 1997). As they become better informed, consumers are more likely to demand a partnership role in their care.

Computer technology can also help group purchasers and health plans to provide information that will facilitate choice, both of product and of provider (Managed Health Care Association 1997). United Airlines, for example, uses software to provide employees with personalized provider listings and referrals for their self-insured indemnity plan (*Employee Benefit Plan Review* 1997). Health plans in Minnesota are using computer-based information to inform enrollees about providers and to help them make effective choices. Health plans also are beginning to employ information technology to guide consumers. Some examples: Allina and Health Partners in Minnesota are developing information kiosks, which consumers can consult when selecting providers; Kaiser Permanente of Northern California was among the first to release to the public a report with 102 performance measures (US General Accounting Office 1995b); as part of its health reform strategy, the Minnesota Health Data Council developed a plan- and payer-specific report card that was based on a consumer survey conducted through a public–private partnership and published as an insert in the local paper.

The expansion of technological capability has both advantages and drawbacks (Kassirer 1995). For example, on-line information enables consumers to become more active participants in the care process, but it also can create confusion when the information is inaccurate or is not derived from authoritative sources. This, as well as the costs of technology, may increase inequities across the population by favoring those who are more "computer literate," leaving less wealthy and less educated consumers out of the loop.

A System in Transition. Although such trends are encouraging, the development of clinical infrastructure in managed care still lags far behind the growth of its related health insurance products because changing clinical practice and provider organization and behavior is hard. Shortell, Bennett, and Byck (1998) point out that the effects on clinical practice of continuous quality improvement, for example, are more likely

to be visible when initiatives are supported by an appropriate regulatory structure, consistent financial incentives, and effective organizational leadership. By applying indicators of idealized, accountable health plans, InterStudy (1995) concluded, however, that many more HMOs were using loosely structured models that relied primarily on FFS payments than had constructed tighter, risk-sharing models that involved providers in developing accountable health systems. The gaps between intention and practice are more obvious when the disparities between what plans say they do and providers' perceptions of these claims are examined.

Effects on the Clinical Practice of Medicine

The design of current health insurance products is affecting, at a minimum, the administrative side of how physicians practice. Utilization review has become a standard feature of both conventional and managed care product design. In a 1995 survey, physicians said that, on average, 59 percent of their patients were reviewed for length of stay; 45 percent, for site of care; and 39 percent, for the appropriateness of medical treatment, although reports of denials of service were both low and highly skewed (Remler, Donelan, and Blendon 1997). The physicians said that condition-specific guidelines or protocols were used for 16 percent of their patients; that they were part of a restricted panel for 25 percent of their patients; and that they acted as gatekeepers for 20 percent. A more recent survey estimated that nine of ten physicians surveyed were gatekeepers for at least some of their patients, averaging 42 percent of patients in those practices (St. Peter 1997b). One recent analysis suggests that referrals by generalists actually are higher for HMO patients than for FFS patients, although fewer HMO patients self-referred (Forest and Reid 1997). HMO patients were sicker at referral, which the authors argue may suggest better targeting. However, the study only included generalist physicians whose practices were based in their offices, not in institutions.

Evidence about how physicians perceive the changes introduced by managed care is ambiguous, and the results appear to be highly sensitive to the wording of the questions and to how the analysis is presented, particularly as both factors vary according to whether the focus is on those who are satisfied or dissatisfied (Reed and St. Peter 1997; Donelan, Blendon, Lundberg, et al. 1997; Hadley and Mitchell 1997; Collins, Schoen, and Sandman 1997). Studies clearly show that physicians are

more dissatisfied now than they were in the past and that this change correlates both over time and across geographic boundaries as managed care penetration shifts. However, the studies also show that physician dissatisfaction with the terms of their practices has always been relatively intense across markets characterized by both heavy and light incursions of managed care, at least in recent times.

Physicians vary in their perceptions of how the changes in the health care system are affecting their ability to practice. In one recent national survey, most physicians said they were able to provide high-quality care to their patients, but 24 percent disagreed, including a disproportionate share of specialists (27 percent, compared with 18 percent of primary care physicians) (Reed and St. Peter 1997). Most also said they are confident in securing referrals to high-quality specialists, although 18 percent say they cannot always, or "almost always," obtain such referrals, even when they are medically necessary, and that referrals for mental health services are a particular concern (St. Peter 1997a; Schuchman and St. Peter 1997). In another recent national survey, 18 percent of physicians said they were somewhat or very dissatisfied with their authority to make the right decisions, and 29 percent said they were dissatisfied with the amount of time available to patients (Collins, Schoen, and Sandman 1997). Only one in four physicians was very satisfied with the practice of medicine overall, and 35 percent were either somewhat or very dissatisfied.

The features most likely to concern physicians about managed care are the movement of patients in and out of practices, administrative paperwork, and limitations on referrals to specific specialists of their choice (Donelan, Blendon, Lundberg, et al. 1997). Sixty percent of physicians have problems with external review and its limitations on clinical decision-making, and 80 percent find it difficult to stay abreast of insurance plan practice guidelines and utilization rules (Collins, Schoen, and Sandman 1997). These responses suggest that physician reaction may reflect more a general dislike of managed care and its requirements than a specific reaction to its actual performance. One recent study in California finds that, although primary care physicians were less satisfied with the quality of care they deliver to patients under capitated contracts than other payment sources, those in medical groups and with a higher percentage of capitated patients were more satisfied with capitated care (Kerr, Hays, Mittman, et al. 1997). These findings probably are influenced by physicians' decisions about where to practice. They

also may, however, suggest that physicians' reactions to managed care constitute a transitory phenomenon that can be modified by introducing the changes in a different way.

Oversight and Regulation of the Rapidly Evolving Market

The rapid pace of change in the health care system challenges the regulatory infrastructure, particularly when the respective federal and state regulatory roles are being redefined to accommodate the growth of self-funded health plans and national firms that span state and regional boundaries.

The Challenges of Rapid Change

The growing diversity of managed care products, many with similar names, is challenging for consumers. Diversity expands choice and allows purchasers to tailor offerings more closely to particular needs. Choice among products, however, each perhaps with different providers in their systems, different rules for determining access to those providers, and different features that may be difficult for consumers to comprehend readily or assess, can be taxing and confusing to consumers. Demands on consumers are also likely to increase in the future. For example, Medicare choices are likely to expand greatly, based on authority in the Balanced Budget Act of 1997 (Christensen 1998).

The current design of health insurance plans and products requires strong investment in education and information to help consumers understand how managed care systems work, how they may modify traditional practice, and differences that exist in structure or performance across plans or products. The pace of change calls for frequent updates of this information. Further, the fact that health insurance products are adopting managed care features, some of which may be difficult for consumers to assess, means also a greater need for external oversight or independent assessment, either public or private.

A challenging aspect of addressing these issues is the variation in the amount and kinds of change being introduced across health insurance

products, which means that the oversight issues are not always the same, even if the goals are consistent. Ideally, the advantage of health insurance products building heavily on managed care is that network-based arrangements, particularly when the managed care product is capitated, provide the incentive, and potentially the opportunity, to create an infrastructure that often is absent from traditional practice. Plans and their providers may be more easily held accountable to group purchasers for both outcomes and costs in managed care products, leading eventually to better clinical integration, well-developed practice protocols, and quality-control systems. It also should foster a focus on prevention and population-based measurement to drive targeted quality improvement initiatives (Halvorson 1993).

The concern with the shift in health insurance plans is that stipulated provider networks, prior approval mechanisms, and administrative barriers, like queuing, all add to the "hassle" factor (*Consumer Reports* 1996a; 1996b). Such features, particularly if they are not well designed and effectively implemented, can lead to confusion, dissatisfaction, disruption of long-standing treatment patterns, and an above-average number of instances of poor-quality care. Clancy and Brody (1995) call the divergent possibilities that exist at either end of the continuum the "Jekyll and Hyde" of managed care.

It is beyond the scope of this paper to review the evidence on how managed care affects quality. Yet it is important to acknowledge that the thrust of most existing research, limited though it often is in timeliness, scope, and specificity, indicates that managed care and FFS settings provide care of roughly similar quality (Miller and Luft 1994; 1997), and that improvement is possible in both (Schuster, McGlynn, and Brook 1998; Chassin 1998). Limited studies of the chronically ill and of those needing postacute care show some potential problems in managed care environments, particularly those involving care of enrollees in the Medicare program (Brown, Clement, Hill, et al. 1993; Ware, Bayliss, Rogers, et al. 1996; Shaughnessy, Schlenker, and Hittle 1994). These findings raise concerns. Thus, the evidence so far, in brief, is that although managed care lives up neither to its potential nor to the fears surrounding it, there is nevertheless room for improvement. A critical challenge is to encourage true managed care and the clinical practice associated with it and to discourage those aspects that merely create hassles or save money without encouraging better performance.

The Growth of Self-Funded Plans under ERISA

The regulatory infrastructure to guide current change is not well positioned for the challenges it faces. The reach of state regulatory structures is far less than it used to be, at the same time that the challenges of regulation are expanding. Under the federal Employee Retirement Income Security Act of 1972 (ERISA), the federal government has oversight authority over many employee benefit plans; when such purchasers offer self-funded plans, they are not considered to be "insurance" and are not subject to regulation by states (Mariner 1996). Estimates by the US General Accounting Office (1995a) indicate that 114 million individuals were covered by ERISA-regulated plans in 1993, of whom 40 percent—40 million individuals—were in self-insured (i.e., self-funded) plans. Many of these are covered by large firms that are outside state reach and are seeking a consistent national approach.

In 1995, 46 percent of insured workers were in self-funded plans, including 63 percent of all conventional plan enrollees, 60 percent of all PPO enrollees, and 53 percent of POS enrollees (Jensen, Morrissey, Gaffney, et al. 1997). Self-insurance is less common for workers in HMOs; only 11 percent were self-insured in 1995. The share of workers from small and medium-sized firms in self-funded plans increased from 15 percent in 1980 to 46 percent in 1993. Among smaller firms (under 100 employees), 31 percent were self-funded in 1992. The line between self-funding and insured arrangements is not entirely clear; partly self-insured arrangements are almost as frequent as full self-insurance (Jensen, Morrissey, Gaffney, et al. 1997). This occurs when self-funded employees, for example, purchase stop-loss insurance, which is equivalent to buying insurance with a large deductible. Through the National Association of Insurance Commissioners, states have been modifying regulation to address such arrangements more appropriately, but consensus on the mix and balance of federal and state responsibilities in this arena is still absent.

Growing Complexity and Concentration among Health Plans

The growth of large managed care organizations also challenges historical modes of health insurance regulation, state by state, product by product. Until recently, health insurance was provided primarily by

commercial insurers and Blue Cross–Blue-Shield organizations, which sold insured conventional indemnity products to purchasers, complemented by a series of alternative delivery systems that were largely independent, locally based organizations set up for a single purpose, usually to operate and sell HMO (or more recently a PPO) health plan coverage to purchasers (Gold 1998). With the shift to managed care, commercial insurers, Blue Cross–Blue Shield organizations, managed care companies, provider groups, and others are increasingly involved in sponsoring health plans (American Association of Health Plans 1997). Further, the growth of self-insured plans has meant that group purchasers (as previously discussed) also operate their own health plans, sometimes working directly with provider entities to contract for managed care product.

In addition, as managed care plans have become more mainstream, they, like the conventional plans they are replacing, are increasingly owned or affiliated with national or regional organizations (Corrigan, Eden, Gold, et al. 1997). National firms (including commercial insurers) now own over half of the existing HMO and PPO health plans (American Association of Health Plans 1997). The HMO market share held by the HMOs owned by the 10 largest national firms rose from 21 percent to 34 percent between 1990 and 1994 (Corrigan, Eden, Gold, et al. 1997); more recent data suggest that this share now is well above 40 percent (InterStudy 1997a). However, the importance of national firms varies by region, as do many other of the features I have discussed (Corrigan, Eden, Gold, et al. 1997).

Enrollment tends to be concentrated in a small share of health insurance plans. For example, over half of the HMO enrollment was in the 65 HMOs with 200,000 or more members, and almost three-quarters was in the 143 HMOs with 100,000 or more members (from a total of 651 HMOs in early 1997) (InterStudy 1997a; 1997b). This concentration, together with the movement to national firms, means that a relatively small number of managed care entities is responsible for the care of a disproportionately large share of managed care enrollees.

Large managed care companies increase the pressure for more nationally consistent forms of regulation. On one hand, the size of these companies simplifies the regulatory demands by concentrating the organizations of focus. On the other, it also complicates oversight because increasing size may generate more "layering." That is, with health care delivery still predominantly local, large national firms, particularly when

their presence in a market is limited, may seek to delegate major care delivery functions and financial risk through contracts with smaller organizations. If large enough, these may in turn contract with others. Determining how to regulate this increasingly complicated set of interlocking organizations appropriately is a major policy challenge.

Discussion and Conclusions

The structure of health insurance and health care delivery is changing rapidly in the United States. The restructuring currently under way in the health care system has considerable potential to enhance patient care and outcomes, but such change also generates challenges and potential risks. Emerging structures may support enhanced accountability for performance and outcomes. Such developments also are being encouraged by medical innovation and technological change. There is evidence as well, however, that accountability exists more in concept than reality, particularly in the degree to which it reflects actual change in the way care is delivered and providers practice. Further, the pace of change itself creates challenges. Consumers and providers are being asked to understand and accommodate change that affects in fundamental ways how they seek care and relate to the health care system. The potential for confusion is high, especially in the short run. Education is essential, and new technology exists to support it. At the same time, there is a serious potential for information overload. In addition, not all consumers are equally well positioned to process and use information. Consumers could be caught in the middle: on the one hand, they are being encouraged by group purchasers to shift toward more tightly managed health insurance products; on the other, their long-standing providers may warn that such a shift will lead to poor-quality care. The tension created by these mixed messages may severely damage people's confidence in the health care system and their providers (Mechanic 1998).

However, although it is tempting to stop with an emphasis on the education and protection of consumers (Emanuel and Goldman 1998), this type of initiative is not necessarily what is needed to tackle most fully and directly the challenges created by today's environment, which are arguably more fundamental. I would propose that there is a built-in tension between the interest in driving down health care costs rapidly through organizational change and the inherently long time frame that

fundamental change in structures, processes, and orientations requires. The failure to acknowledge and to deal openly with these inherent tensions may well explain much of the current debate on managed care. Thus, managed care plans are faulted for making what purportedly are financially driven decisions. Certain practices, like gatekeeping or length-of-stay guidelines, may be precluded or legislated, even though solid evidence on medical necessity may be lacking and purchasers may be unwilling to accept the cost consequences of these decisions. Further, in today's environment of "instant polls," it may be difficult to distinguish between reports by the press on consumer perceptions and the considerable influence the press itself exerts on those perceptions.

Deciding how to debate honestly and to guide change appropriately in this environment is difficult. For example, at a time when primary care is being encouraged, what is the best way to deploy specialists? What procedures should be provided and when?

These are difficult questions, for which there are no easy, purely objective, answers, particularly when medical care remains as much an art as a science, despite its increased reliance on evidence-based practice. This makes it hard to distinguish between conflicts of "self-interest" among all the various groups with a stake in the status quo and the "public interest," which in some unspecified way represents the collective good. This "public good" is further complicated by the diversity across the population and the way this creates "winners," who have the ability to influence the process, and "losers," who do not.

Generating an open and forthright dialogue on these issues may be difficult when so much is at stake financially for so many diverse groups. The alternatives may be less attractive, however, when budgets are constrained in the public and private sectors, which must nevertheless continue to deal with innovations in health technology and ongoing investment in research and development (Neumann and Sandberg 1998). The risk in today's focus on "patient protection" and strengthening oversight of managed care is that more may be expected of such regulation than can be delivered: both the science and the legal principles for defining "medically necessary" care are ill suited to the task. The issue resides less in the question of "what works" than, given the chance that a certain type of treatment might indeed succeed, in the question of how much society should be expected to pay from its available resources to give an individual the chance to benefit from that treatment. Relying more heavily on patient cost sharing to control costs is favored by some

as less intrusive, but it too has major risks (Rice and Morrison 1994). In a society where earnings and health care needs are unevenly distributed, cost sharing almost invariably creates issues of equity, most likely reflected in the growing numbers of uninsured and underinsured as premium contributions and out-of-pocket costs grow. Absent from the "consumer protection" debate is the kind of honest, open discussion of the issues that may be most important for consumers to understand.

How policy makers of all kinds address these challenges in the years ahead will be critical in determining the evolution of our health system and the clarity of its focus on the "public good," however that ultimately is defined.

References

American Association of Health Plans. 1995/96. *HMO and PPO Industry Profile*. Washington, D.C.

———. 1997. Plan ownership and products. Washington, D.C. (Unpublished data.)

American Hospital Association. 1994/95. *Hospital Statistics: The AHA Profile of United States Hospitals*. Chicago.

———. 1995/96. *Hospital Statistics: Emerging Trends in Hospitals*. Chicago.

Bazzoli, G.J., S.M. Shortell, N. Dubbs, et al. 1997. *A Taxonomy of Health Care Networks and Systems: Bringing Order Out of Chaos*. Prepared for the conference, Health Care Markets and Managed Care: New Evidence and Emerging Issues, convened by Health Systems Research for the Agency for Health Care Policy and Research/Health Affairs, Washington, D.C.

Bindman, A.B., K. Grumbach, K. Vranzien, D. Jaffe, and D. Osmond. 1998. Selection and Exclusion of Primary Care Physicians by Managed Care Organizations. *Journal of the American Medical Association* 279:675–9.

Blendon, R.J., M.A. Brodie, J.M. Benson, D.F. Altman, et al. 1998. Lenders Target the Managed Care Backlash. *Health Affairs* 17(4): 80–94.

Blumenthal, D. 1997. The Future of Quality Measurement and Management in Transforming Health Systems. *Journal of the American Medical Association* 28:1622–5.

Blumenthal, D., and C.M. Kilo. 1998. A Report Card on Continuous Quality Improvement. *Milbank Quarterly* 76:625–48.

Brennan, T.A. 1998. The Role of Regulation in Quality Improvement. *Milbank Quarterly* 76:709–32.

Brown, R., D.G. Clement, J.W. Hill, S.M. Retchin, and J.W. Bergeron. 1993. Do Health Maintenance Organizations Work for Medicare? *Health Care Financing Review* 15(1):7–24.

Chassin, M. 1998. Is Health Care Ready for Six Sigma Quality? *Milbank Quarterly* 76:565–92.

Christensen, S. 1998. Medicare+ Choice Provisions in the Balanced Budget Act of 1997. *Health Affairs* 17(4):224–31.

Clancy, C.M., and H. Brody. 1995. Managed Care: Jekyll or Hyde. *Journal of the American Medical Association* 273(4):338–9.

Colby, D.C. 1997. Perspective: Doctors and their Discontents. *Health Affairs* 16(6):112–14.

Collins, K.S., C. Schoen, and D.R. Sandman. 1997. *The Commonwealth Fund Survey of Physician Experiences with Managed Care*. New York: Commonwealth Fund.

Consumer Reports. 1996a. How Good is Your Health Plan? (August, pt. 1).

———. 1996b. Can HMOs Help Solve the Health Care Crisis? (October, pt. 2).

Cooper, P.F., and B.S. Schone. 1997. More Offers, Fewer Takers for Employment-Based Health Insurance: 1987–1996. *Health Affairs* 16(6):142–9.

Corrigan, J., J. Eden, M. Gold, and J. Pickreign. 1997. Trends toward a National Health Care Marketplace. *Inquiry* 34(1):11–28.

Donelan, K., R.J. Blendon, G.D. Lundberg, et al. 1997. The New Medical Marketplace: Physicians' Views. *Health Affairs* 16(3):139–48.

Dudley, R.A., R.H. Miller, T.Y. Korenbrot, and H.S. Luft. 1998. The Impact of Financial Incentives on Quality of Health Care. *Milbank Quarterly* 76:649–86.

Emanuel, E.J., and L. Goldman. 1998. Protecting Patient Welfare in Managed Care: Sex Safeguards. *Journal of Health Politics, Policy, and Law* 23:635–60.

Emmons, D.W., and P.R. Kletke. 1997. An Examination of Practice Size. In *Socioeconomic Characteristics of Medical Practice 1997*. Chicago: American Medical Association.

Emmons, D.W., and G.D. Wozniak. 1997. Physicians' Contractual Arrangements with Managed Care Organizations. In *Socioeconomic Characteristics of Medical Practice 1997*. Chicago: American Medical Association.

Employee Benefit Plan Review. 1997. Employers Use Varied Communications to Give Employees Health Plan Quality Information. 52(2): 24–8.

Employee Benefits Research Institute. 1997. Trends in Health Insurance Coverage. *EBRI Issue Brief No. 185*. Washington, D.C.

———. 1998. Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 1998 Current Population Survey. *EBRI Issue Brief No. 204*. Washington, D.C.

Fein, E.R. 1997. Doctors Maintain Connection with Patients through E-Mail. *New York Times* (November 20).

Felt-Lisk, S. 1996. How HMOs Structure Primary Care. *Managed Care Quarterly* 4(4):96–105.

Flood, A.B. 1994. The Impact of Organizational and Managerial Factors on the Quality of Care in Health Care Organizations. *Medical Care Review* 51:381–428.

Forest, C.B., and R.J. Reid. 1997. Passing the Baton: HMOs' Influence on Referrals to Specialty Care. *Health Affairs* 16(6):157–62.

Freudenheim, M. 1997. The Future Wears White: Nurses Treading on Doctors' Turf. *New York Times* (November 2).

Gabel, J.R., P.B. Ginsburg, and K.A. Hunt. 1997. Small Employers and Their Health Benefits, 1988–1996: An Awkward Adolescence. *Health Affairs* 16(5):103–10.

Ginsburg, P., and J.R. Gabel. 1998. Tracking Health Care Costs: What's New in 1998? *Health Affairs* 17 (5):141–5.

Ginsburg, P., and J. Pickreign. 1997. Tracking Health Care Costs: An Update. *Health Affairs* 16(4):151–5.

Gold, M. 1998. Understanding the Roots: Health Maintenance Organizations in Historical Context. In *Contemporary Managed Care*, ed. M. Gold, 7–16. Chicago: Health Administration Press.

———. 1999. Financial Incentives in Managed Care: Current Realities and Challenges for Physicians. *Journal of General Internal Medicine* (forthcoming).

Gold, M., and R. Hurley. 1997. The Role of Managed Care "Products" in Managed Care "Plans." *Inquiry* 34(1):29–37.

Gold, M.R., R. Hurley, T. Lake, et al. 1994. Arrangements Managed Care Plans Make with Physicians. *Selected External Research Series No. 3*. Washington, D.C.: Physician Payment Review Commission.

———. 1995. A National Survey of the Arrangements Managed Care Plans Make with Physicians. *New England Journal of Medicine* 333: 1678–83.

Gold, M., L. Nelson, T. Lake, et al. 1995. Behind the Curve: A Critical Assessment of How Little Is Known about the Arrangements of Managed Care and Physicians. *Medical Care Research and Review* (suppl. 2):307–41.

Hadley, J., and J.M. Mitchell. 1997. Effects of HMO Market Penetration on Physicians' Work Effort and Satisfaction. *Health Affairs* 16(6):99–111.

Halvorson, G. 1993. *Strong Medicine*. New York: Random House.

Hunt, K., S.J. Singer, J. Gabel, et al. 1997. Paying More Twice: When Employers Subsidize Higher-Cost Health Plans. *Health Affairs* 16(6):150–87.

InterStudy. 1995. *The InterStudy Competitive Edge: Part II. HMO Industry Report Number 5.1*. Excelsior, Minn.

———. 1997a. *The InterStudy Competitive Edge: Part II. HMO Industry Report Number 7.1*. Excelsior, Minn.

———. 1997b. *The InterStudy Competitive Edge: Part II. HMO Industry Report Number 7.2*. Excelsior, Minn.

———. 1998a. *The InterStudy Regional Market Analysis: Industry Report Number 8.2*. Excelsior, Minn.

———. 1998b. *Interstudy HMO Trend Report*. Excelsior, Minn.

Jensen, G., M.A. Morrissey, S. Gaffney, and D.K. Liston. 1997. The New Dominance of Managed Care: Insurance Trends in the 1900s. *Health Affairs* 16(1):125–36.

Kassirer, J.P. 1995. The Next Transformation in the Delivery of Health Care. *New England Journal of Medicine* 332:52–3 (editorial).

Kerr, E., R.D. Hays, B.S. Mittman, A.L. Siu, B. Leake, and R.H. Brook. 1997. Primary Care Physicians' Satisfaction with Quality of Care in California Capitated Medical Groups. *Journal of the American Medical Association* 278:308–12.

Lake, T., and R. St. Peter. 1997. Payment Arrangements and Financial Incentives for Physicians. *Data Bulletin Number 8: Results from the Community Tracking Study*. Washington, D.C.: Center for Studying Health Systems Change.

Levit, K., C. Cowan, B. Braden, J. Stiller, A. Senseny, and H. Lazenby. 1998. National Health Expenditures in 1997: More Slow Growth. *Health Affairs* 17(6):99–110.

Lewis, K., and M. Ellwood. 1997. *Children's Health Insurance Patterns: A Review of the Literature*. Washington, D.C.: Mathematica Policy Research.

Managed Health Care Association. 1997. *Communicating Health Care Quality: How Pioneering Employers Keep Consumers Informed*. Washington, D.C.

Mariner, W.K. 1996. Sounding Board: State Regulation of Managed Care and the Employee Retirement Income Security Act. *New England Journal of Medicine* 335:1986–90.

Mechanic, D. 1998. The Functions and Limitations of Trust in the Provision of Medical Care. *Journal of Health Politics, Policy, and Law* 23:661–86.

Miller, R.H. 1996. Health Systems Integration. *Health Affairs* 16(2):92–106.

Miller, R.H., and H.S. Luft. 1994. Managed Care Performance Since 1980: A Literature Analysis. *Journal of the American Medical Association* 271:1512–19.

———. 1997. Does Managed Care Lead to Better or Worse Quality of Care? *Health Affairs* 16(5):7–23.

Morrisey, M.A., J. Alexander, L.R. Burns, and V. Johnson. 1996. Managed Care and Physician/Hospital Integration. *Health Affairs* 15(4): 62–73.

Morrissey, M.A., and G.A. Jensen. 1997. Switching to Managed Care in the Small Employer Market. *Inquiry* 34(3):237–48.

Moser, J.W. 1997. Trends in Physician Income, 1985–1995. In *Socioeconomic Characteristics of Medical Practice 1997*. Chicago: American Medical Association.

National Committee for Quality Assurance. 1997. *State of Managed Care Quality*. Washington, D.C.

Neuman, P.J., and E.A. Sandberg. 1998. Trends in Health Care R & D and Technology Innovation. *Health Affairs* 17(6):111–19.

Physician Payment Review Commission. 1997. *Annual Report to Congress 1997*. Washington, D.C.

Prospective Payment Assessment Commission. 1997. *Medicare and the American Health Care System: Report to Congress*. Washington, D.C.

Randolph, L. 1997. *Physician Characteristics and Distribution in the U.S., 1997*. Chicago: American Medical Association.

Reed, M.C., and R.F. St. Peter. 1997. Satisfaction and Quality: Patient and Physician Perspectives. *Data Bulletin Number 3: Results from the Community Tracking Study*. Washington, D.C.: Center for Studying Health System Change.

Remler, D.K., K. Donelan, and R.J. Blendon. 1997. What Do Managed Care Plans Do to Affect Care? Results from a Survey of Physicians. *Inquiry* 34:204.

Rice, T., and K.R. Morrison. 1994. Patient Cost Sharing for Medical Services: A Review of the Literature and Implications for Health Care Reform. *Medicare Care Review* 51(3):235–87.

Robinson, J.C., and L. Casalino. 1996. Vertical Integration and Organizational Networks in Health Care. *Health Affairs* 15(1):8–22.

St. Peter, R. 1997a. Access to Specialists: Perspectives of Patients and Primary Care Physicians. *Data Bulletin Number 2: Results from the*

Community Tracking Study. Washington, D.C.: Center for Studying Health System Change.

———. 1997b. Gatekeeping Arrangements Are in Wide-Spread Use. *Data Bulletin Number 7: Results from the Community Tracking Study*. Washington, D.C.: Center for Studying Health System Change.

Schoen, C., B. Lyons, D. Rowland, K. Davis, and E. Puleo. 1997. Insurance Matters for Low-Income Adults: Results from a Five-State Study. *Health Affairs* 16(5):163–71.

Schuchman, M., and R.F. St. Peter. 1997. Primary Care Physicians Concerned about Patients' Mental Health Services. *Data Bulletin Number 6: Results from the Community Tracking Study*. Washington, D.C.: Center for Studying Health System Change.

Schuster, M.A., E.A. McGlynn, and R.H. Brook. 1998. How Good Is the Quality of Health Care in the United States? *Milbank Quarterly* 76:517–64.

Shaughnessy, P.W., R.E. Schlenker, and D.F. Hittle. 1994. Home Health Care Outcomes Under Capitated and Fee-for-Service Payment. *Health Care Financing Review* 16(1):187–222.

Shortell, S.M., C.L. Bennett, and G.R. Byck. 1998. Assessing the Impact of Continuous Quality Improvement on Clinical Practice: What It Will Take to Accelerate Progress. *Milbank Quarterly* 76:593–624.

Shortell, S., and and K.E. Hull. 1996. The New Organization of the Health Care Delivery System. In *Strategic Choices for a Changing Health Care System*, eds. S. Altman and U.E. Reinhardt, 101–48. Chicago: Health Administration Press/Foundation for Health Care Research.

Simon, C.J., and D.W. Emmons. 1997. Physician Earnings at Risk: An Examination of Capitated Contracts. *Health Affairs* 16(3):120–6.

Simon, C.J., W.D. White, S. Gamliel, and P.K. Kletke. 1997. The Provision of Primary Care: Does Managed Care Make a Difference? *Health Affairs* 16(6):89–98.

U.S. General Accounting Office. 1995a. *Employer Based Health Plans: Issues, Trends, and Challenges Posed by ERISA.* GAO/HEHS-95-167. Washington, D.C.

———. 1995b. Health Care: *Employers and Individual Consumers Want Additional Information on Quality*. GAO/HEHS-95-201. Washington, D.C.

———. 1996. *Private Health Insurance: Millions Relying on Individual Market Face Cost and Coverage Trade-Offs*. GAO/HEDHS/97-8. Washington, D.C.

———. 1997. *Private Health Insurance: Continued Erosion of Coverage Linked to Cost Pressures*. GAO/HEHS 97-122. Washington, D.C.

U.S. Office of Technology Assessment. 1992. *Does Health Insurance Make A Difference?* OTA-BP-H-99. Washington, D.C.

Ware, J., M.S. Bayliss, W.M. Rogers, M. Kosinski, and A.R. Tarlov. 1996. Differences in Four-Year Health Outcomes for Elderly and Poor, Chronically Ill Patients Treated in HMO and Fee-for-Service Systems. *Journal of the American Medical Association* 276:1039–47.

Weiner, J.P., and G. deLissovoy. 1993. Razing the Tower of Babel: A Taxonomy for Managed Care and Health Insurance Plans. *Journal of Health Politics, Policy, and Law* 18:75–103.

Acknowledgments: This paper was based on a report prepared for the President's Advisory Commission on Consumer Protection and Quality in the Health Care Industry that was supported by funding through a task order under DHHS contract number 100-97-0013. All views are those of the author and do not necessarily represent those of the Commission or its staff or of Mathematica Policy Research, Inc.

Ann Page and Janet Corrigan with the Commission staff provided valuable advice and guidance. At MPR, Randall Brown, Marilyn Ellwood, Robert St. Peter, and Judith Wooldridge volunteered useful reactions and comments on earlier drafts. Sally Henderson offered valuable staff support from the MPR library. Anne Kelleher and Daryl Hall edited the document. Patricia McCall and Cheron Hunt Brown provided secretarial assistance. I am grateful to anonymous reviewers of earlier drafts for encouraging me to think more carefully about the policy implications of the analysis.

Address correspondence to: Marsha Gold, Mathematica Policy Research, 600 Maryland Avenue, SW, Suite 550, Washington, DC 20024.