Management of Mental Health and Substance Abuse Services: State of the Art and Early Results

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THE DESIGNATION "MANAGED CARE" ENCOMPASSES a wide range of organizational forms, financing arrangements, and regulatory devices that vary in their impact on patient care. Any useful assessment must be specific to the managed care approach in question, but there has been little research that helps to distinguish among the many existing variations. Our limited knowledge in this area stems in part from a failure of past research to address the complexity and diversity of managed care arrangements. We begin by examining some of these issues before turning to the empirical research on this topic and the implications that we draw from its findings.

Managed care strategies for the delivery of mental health and substance abuse services have wide appeal. Deinstitutionalization and growing acceptance by consumers of the legitimacy of psychiatric care have accelerated demand for such services, as have regulations in most states mandating some insurance coverage for mental illness and substance abuse. The costs of treatment for these health problems have been increasing, outpacing the growth in other areas. This compensates for the historical neglect of mental health and substance abuse services, but con-

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tributes to concerns about growing costs, which are exacerbated by evidence that as much as 40 percent of all psychiatric hospitalization is inappropriate (Strumwasser et al. 1991). Managed care is a strategy that may increase availability of treatment, contain costs, and increase quality, but it could result as well in denial of needed treatment, reduction in quality of service, and cost shifting to patients, families, professionals, and the community.

Currently, most mental health services are under some type of managed care program. As Dorwart notes, "Within a few years three out of four psychiatric patients will have their care overseen by some type of managed care program" (Dorwart 1990, 1087). The recent Utilization Management Survey conducted by the National Association of Private Psychiatric Hospitals reported that most psychiatric care in private hospitals is managed; almost 80 percent of admissions require precertification, and 75 percent require concurrent review (England and Vaccaro 1991). Despite the growth of managed care for mental health and substance abuse services, there are few reliable data to address issues concerned with the quality of care provided under such programs.

Types of Managed Care

Managed care, in the broadest use of the term, refers to organizational arrangements that alter treatment decisions that would otherwise have been made by individual patients or providers. These organizational arrangements take a variety of forms, but they can be grouped into three broad categories:

1. Prepaid health plans (often termed health maintenance organizations, or HMOs), which enroll people for extended periods of time.
2. Utilization management by third-party organizations (often termed utilization review organizations, or UROs), which review individual episodes of treatment.
3. High-cost case management, in which, for the duration of their illness, patients are temporarily placed under the auspices of a professional case manager, who acts as a gatekeeper for services and often can authorize additional services beyond those usually covered by the insurance plan.

Each of these general categories appears in a variety of forms. Types of managed care are discussed elsewhere in this issue by Kenneth A. Wells and his colleagues.

Prepaid health plans have these defining characteristics:

1. There is a contract with a provider, who agrees to provide treatment for an enrollee over a specified period of time.
2. The plan is paid a fixed amount by enrollees or by those who are purchasing care on their behalf (e.g., their employer or a government program such as Medicare or Medicaid).
3. Enrollees are required to use the plan for all covered services if they are to avoid out-of-pocket expenditures.

The plan is financially liable for providing care within a budget. To control costs, plans may employ a variety of financial incentives, primary care gatekeepers, or forms of utilization review. The term "HMO" is thus general, telling us little about types of organizational arrangements, resource allocations, management practices, selection of personnel, investments in technology, reimbursement methods, and other matters of importance.

Utilization management (UM) refers to systems that monitor the appropriateness of episodes of treatment (Hodgkin 1992). Major forms of UM include precertification (prior authorization), concurrent review, and second opinion programs. Utilization review is most often associated with either traditional fee-for-service (FFS) insurance, which continues to allow enrollees free choice of providers, or preferred provider organizations (PPOs), which establish discounted contracts with groups of providers and offer enrollees financial incentives for using members of the group. Surveys fielded in the early 1990s indicate that virtually all private insurance now incorporates a version of utilization review, most commonly prior authorization requirements for some forms of hospitalization. The treatments to which this is applied, however, and the stringency of the review criteria vary greatly from one plan to the next.

High-cost case management also may make use of some UM techniques, but it represents a distinct form of managed care:

1. It applies only to those patients who have generated substantial medical costs (making it narrower than both prepaid care and UROs).

2. It provides oversight for the duration of the illness (making it more continuous than UROs).
3. Case managers usually can authorize additional services, not ordinarily covered, that may substitute for other, more expensive treatments.

The Organization of Managed Care for Mental Health Services

The treatment of mental illness and substance abuse differs from other forms of health care in that the public sector has long played a dominant role in financing services, particularly for those who have the most severe conditions. For the past 150 years, state-run psychiatric hospitals have been the primary providers of care for the chronically mentally ill. This network of hospitals was supplemented by the community mental health centers (CMHCs) first established by federal initiative in the mid-1960s. Roughly two-thirds of all drug treatment is supported by the public sector, divided between treatment centers run by local government and private nonprofit facilities that contract with government to provide services. These publicly funded programs represent a crude form of managed care because they provide care under a global budget to a defined population in a catchment area. Such organizations, however, lack two elements usually seen as important in managed care: a direct link between prepayment and specific enrollees; and assumption of risk for expenditure overruns beyond the agreed-upon capitation arrangements. Accountability in public and private programs also differs sharply: in the former, it is to state agencies and other regulatory bodies, and in the latter, to private boards and stockholders.

In recent years, various attempts have been made to increase the role of more contemporary versions of managed care in the public sector, ranging from prepayment to utilization review to case management for individual patients. Many of these have emerged as a part of cost-saving efforts in state Medicaid programs, which are a primary source of insurance for many of the severely mentally ill (Steinwachs, Kasper, and Skinner 1992). In several states, attempts have been made to "mainstream" Medicaid populations with mental illness into HMOs. At least 20 states have incorporated some form of prior authorization into Medicaid coverage of inpatient psychiatric care. Other experiments have emerged from

reforms in public mental health programs, among them various forms of case management (Stein 1992) and efforts to develop specialized "mental health HMOs" for persons with severe and persistent mental illness (Mechanic and Aiken 1989). These latter organizations are designed to focus responsibility and consolidate funding sources to manage services. Although they have used capitation to assign treatment responsibility for difficult-to-treat patients, most have not put the provider organization at financial risk. There have been few comparable initiatives in state agencies responsible for the treatment of substance abuse, although high rates of comorbidity (people who are both mentally ill and have problems with substance abuse) suggest that a significant number of people with substance abuse problems are being enrolled into managed care initiatives as a byproduct of other reforms.

Over the past 20 years, private insurance has covered an increasing portion of the treatment of mental illness and substance abuse. Mental health benefits may be managed as a "carve-out" by provider organizations that specialize in mental health and substance abuse services. The organization providing these services may be a secondary contractor at risk for all or part of the expenditures for mental health services. Roughly 30 companies specialize in third-party utilization review for mental health and substance abuse services on a national basis. As many as 300 companies provide some form of managed mental health care on a regional level. Many are now developing their own provider systems, and virtually all use various forms of utilization review—often selectively contracting with providers in a PPO model. Relatively little systematic information, however, is available on their performance.

HMOs have become the second most common type of managed care organization serving persons who may have a psychiatric disorder, and almost all provide some coverage for mental health care (Goldman 1988). Most HMOs, however, only cover an acute care mental health benefit, and they discourage enrollment of persons with serious mental disorders (Schlesinger 1986; Flinn, McMahon, and Collins 1987). A majority of HMOs do not cover chronic mental illness in their standard plan for private enrollees (Christianson et al. 1992). Available services within most HMOs are seen by mental health professionals as too limited to effectively serve persons with severe and persistent mental illness.

Much of the recent experimentation with high-cost case management has occurred under the auspices of private insurance. For mental health care, these programs often authorize additional services, like day treat-

ment or partial hospitalization, and the case managers are sometimes affiliated with employee assistance programs (EAPs) established at the work site (England and Vaccaro 1991).

How Managed Care Influences the Delivery of Services

The key idea underlying managed care is to limit unnecessary medical utilization while not withholding necessary and efficacious medical care. This may be achieved either by a clinician gatekeeper, who decides on the need for expensive diagnostic procedures, inpatient admission, or referral to specialists, or by some third party, who reviews decisions to assess whether they are justified. Reducing utilization is relatively easy and can be achieved by simple administrative procedures or requirements. Doing so in a manner that maintains quality care is the significant challenge.

General Approaches

Managed care can alter treatment practices in various ways. Most discussions of managed care focus on three of these mechanisms. The special characteristics of mental health and substance abuse treatment, however, suggest that four other factors may also play an important role.

Three principal ways in which managed care is thought to influence treatment decisions are (1) budget constraints, (2) financial incentives for providers, and (3) review of treatment plans against criteria defining appropriate care.

All HMOs and some high-cost case managers operate under a budget. Working within a fixed budget changes the usual incentives operative in FFS practice. Capitation incentives encourage conservative practices, particularly reduced inpatient admissions and fewer surgical interventions (Mechanic 1984).

In plans that contract with providers (HMOs and PPOs), the limited number of available providers, particularly specialists and subspecialists, may lead to increased waiting time for referrals and treatment. While waiting, some enrollees who initially sought care will change their minds. This is particularly common for the treatment of substance abuse

(Schlesinger, Dorwart, and Clark 1991). Other enrollees, unwilling to wait, will seek treatment outside the auspices of the plan (reducing use and costs for the plan).

A second common method for reducing utilization involves financial incentives for providers. In plans that pay providers on an FFS basis, each individual provider has an incentive to provide more treatment to increase his or her income, even if the plan as a whole must operate within a budget. Plans that reduce providers' incomes when their patients use more treatment (through various forms of income-withholding arrangements) create the opposite incentive. Arrangements in HMOs vary from broad sharing of savings among a large group of physicians to specific incentives that tie particular clinicians' incomes to their decision making (Hillman 1987). The range of incentives is large, and for-profit independent practice associations (IPAs) are more likely than nonprofit providers to link substantial components of a primary care physician's remuneration to utilization targets. One study found that personal financial links to utilization targets were associated with fewer outpatient visits per enrollee (Hillman, Pauly, and Kerstein 1989).

A third common mechanism for altering care involves formal review and prior authorization requirements. These can rely on formal criteria for assessing when treatment is necessary, or simply have a second clinician review the treatment plan using his or her own clinical judgment. Given the current state of the art, the absence of clear professional norms for much mental health and substance abuse treatment leads to utilization review that relies more on the judgment of the reviewers than on formalized criteria, although some review organizations are developing more sophisticated formal criteria. Even when this occurs, a good deal depends on the interpretations and applications of these criteria.

Managed Mental Health Care Services

Some distinct characteristics of mental illness and substance abuse affect the ways in which managed care operates. More than most illnesses, mental illness and substance abuse entail broad social costs that are borne by families, the community, and the legal system. These are not costs readily measured in medical terms. Thus, the criteria for how and when to authorize treatment must also go beyond clinical considerations. Yet clinicians must make decisions about treatment without clear

guidance for measuring or considering these nonclinical factors, which increases the difficulty of defining appropriate treatment norms.

A second important characteristic of mental illness and substance abuse involves the chronicity of the condition. Although acute episodes of mental illness are common, most costs are associated with those who have severe and persistent mental disorders and comorbidity. Similarly, whereas some people who have trouble with drug or alcohol consumption resolve their problems quickly, many struggle over an extended period, often requiring a series of different forms of treatment or continuing aftercare and supportive services. Consequently, the costs and use of services for many of these individuals are likely to persist over time even if care is managed effectively. These sorts of extended costs make enrollees with mental illness or substance abuse problems highly undesirable for the types of managed care that place providers or the organization at financial risk, a situation that is exacerbated by the fact that persons with chronic conditions are also more likely to use other forms of medical care.

A third distinction involves the stigma of illness. Although some physical illnesses, such as sexually transmitted diseases, carry considerable stigma, mental illness and substance abuse remain more stigmatized than most other conditions. People with these conditions are sometimes viewed as threatening to others. Treatment programs are often rejected by neighborhoods out of fear that they will erode property values or endanger residents. Beyond their behavioral consequences, the stigma associated with using substances that are illegal has increased significantly during the past decade. High levels of stigma affect the ability of patients to advocate for their interests within a managed care system and affect the resources that system will devote to treating these conditions. In addition, stigma increases concern about confidentiality, especially when an external agency is responsible for reviewing the appropriateness of treatment (Zusman 1990; Borenstein 1990).

These three characteristics are shared by mental illness and substance abuse. However, several of these factors have greater consequences for the treatment of substance abuse than for other forms of mental health care. Substance abuse problems are less likely to be treated than other forms of serious mental illness. Yet the extent of inappropriate treatment, particularly excessive hospitalization, appears to be substantially greater (Strumwasser et al. 1991). This paradox may reflect greater

stigma for these conditions or the influence of substance use on the decision-making abilities of the drug user. It also reflects the fact that professional norms of treatment are not as well defined for substance abuse as they are for mental health care in general. There is little scientific basis for matching substance abusers to particular modes of treatment (e.g., McKay, McLellan, and Alterman 1992). With the exception of methadone, there are no effective psychopharmacological treatments, and even methadone appears to be effective in reducing only heroin consumption, not necessarily overall substance abuse. Consequently, establishing norms of appropriate treatment for substance abuse is more challenging than for other forms of mental illness. The potential for undertreatment may be exacerbated in managed care settings. Under these conditions, managed mental health care may alter treatment in ways not generally recognized in the literature.

Socialization/Education

Managed care provides an organizational structure through which enrollees and providers can be exposed to claims about what constitutes appropriate treatment. This can take the form of either education (through additional information) or socialization (by changing the norms of appropriate treatment). Each of these is likely to be particularly important for the treatment of substance abuse and mental illness because individual providers and patients are less likely to have as clear a sense of norms of appropriate treatment as they have for other forms of illness.

Reduced Amenities

Managed care plans that contract with particular providers (HMOs and PPOs) can arrange these contracts in less expensive formats that lessen the attractiveness of particular forms of treatment. For example, HMOs may provide mental health care through group rather than individual therapy, or use social workers rather than psychiatrists (Manning and Wells 1986). Although these arrangements may be favored by the plan because they appear more cost effective, some enrollees will view them as less desirable than individual psychotherapy with a psychiatrist. These enrollees may use less care or seek treatment outside the plan.

Benefit Flexibility

Early proponents of delivering mental health care in HMOs argued that managed care plans had greater flexibility to contract for innovative, nontraditional forms of treatment because they could manage utilization to ensure that these substituted for costly services, rather than adding to costs (Budman 1981; Coleman 1982). The experience with HMOs has proven disappointing because the evidence that they have moved beyond traditional services is limited (Thompson et al. 1992; Shadle and Christianson 1989; Schlesinger 1986). However, a few HMOs and some high-cost managed care plans do cover less traditional forms of treatment for mental health care, such as day hospitalization (England and Vaccaro 1991).

Stigmatization

Because both mental illness and substance abuse continue to be stigmatized, arrangements that reduce the privacy of the care-seeking process will discourage some people from using services. Managed care arrangements can do this in a variety of ways. Group treatments common in HMOs are less private than is individual therapy. Under the primary care gatekeepers used in many HMOs, enrollees must accept the risk of having their primary care physician label them as mentally ill in order to obtain mental health care services. Because many high-cost case management programs are tied to work site–based EAP programs, the risk that employers will learn of a mental illness or substance abuse problem is increased (Walsh and Egdahl 1985).

Treatment for mental illness or substance abuse can thus be affected by managed care arrangements in a variety of ways. The exact balance among these various influences will depend on the particular structure of the managed care plan.

Consequences of Managed Care for Treating Mental Illness and Substance Abuse

Based on an extensive literature, it is generally accepted that, for most types of health care, prepaid plans provide services at a cost lower than

that of unmanaged FFS insurance (Luft 1987; Miller and Luft 1994). Studies of utilization management and high-cost case management are less compelling because they both are fewer in number and lack the methodological rigor of the studies of HMOs. (There are, for example, no randomly controlled trials for utilization review comparable to the RAND Health Insurance Experiment [HIE].) However, there are sufficient studies and enough experience to suggest that, for its part, utilization review decreases costs of care under certain conditions (Gray 1991; Bailit and Sennet 1991; Gray and Field 1989).

Although each form of managed care affects treatment in different ways, studies of most types of medical care suggest that the savings emerge primarily through substituting less expensive forms of treatment (typically outpatient services) for most costly treatments (typically inpatient). Thus, comparisons of costs between managed and nonmanaged care commonly reveal that, in managed settings, costs of outpatient care are higher and costs of inpatient care lower, and that the magnitude of inpatient savings is significantly larger than the increases in outpatient costs. Only some of these general findings are replicated in studies of managed care for mental health and substance abuse services.

The Impact of Managed Care on the Use, Cost, and Quality of Mental Health Services

Prepaid Care

A substantial body of research suggests that the average use of mental health services in prepaid plans is significantly lower than under unmanaged FFS insurance (Schlesinger 1989). These findings did not control for self-selection of enrollees—the possibility that people who need mental health care might be less likely to join HMOs in the first place. The single study that randomly assigned enrollees to different forms of insurance replicated these findings (Wells, Marguis, and Hosek 1991). In the RAND HIE, more enrollees in the prepaid practice plan used mental health services than did those in the "free" FFS plan, but the care provided was less intensive. Those in the prepaid practice were more likely to receive their mental health care from a general medical care provider, and overall per capita mental health expenditures were only one-third of the "free care" condition ($25 per year per enrollee versus $70). Prepaid

enrollees who received a mental health service had only one-third the number of mental health visits of the comparable "free" FFS group. The HMO relied more on social workers than on psychiatrists and psychologists, and less on individual than on group or family therapies (Manning, Wells, and Benjamin 1986; Manning and Wells 1986).

RAND researchers examined three mental health outcome measures derived from data in a self-administered medical history questionnaire at enrollment, annually, and when the enrollees left the study. These measures included a measure of psychological distress, a psychological well-being scale, and a mental health index that combines this information. They found no differences in outcomes (Wells, Manning, and Valdez 1989). It should be clear, however, that the outcome measures were limited, and few people in this study had severe and persistent mental illnesses. Thus, this result cannot be generalized to such populations. The results do suggest that an established HMO like the Group Health Cooperative of Puget Sound can offer a different style and intensity of mental health care at lower cost than FFS practice, without demonstrable negative effects on the mental health of the typical enrollee.

Further data on quality are available from the Medical Outcomes Study (MOS), a large observational study involving more than 12,000 group practice patients and almost 10,000 solo practice patients (Tarlov et al. 1989). The purpose of the study is to examine differences in care of chronic conditions, including depression, among various types of provider organizations including HMOs, varying types of multispecialty groups, and single-specialty small groups and solo practices.

In an analysis of MOS results, Rogers and colleagues (1993) focused on five outcome measures based on data obtained prior to baseline, at baseline, and over the next two years of the study. As expected, in all settings psychiatrists treated patients with more serious depressions. However, those who initially received prepaid care from psychiatrists developed new limitations in role and physical functioning over time while those treated by FFS psychiatrists showed no such deterioration. Psychiatrists were more likely to prescribe antidepressant medication than other clinicians, but there was a significant decline in the continuity of medication received by patients in prepaid versus FFS care. MOS researchers also found that FFS providers were more likely to talk to patients about depression during the screening visit for more than three minutes (74 percent versus 59 percent) and to be using antidepressant medication at

the two-year follow up (27 percent versus 15 percent). The prepaid effect was particularly evident in IPAs, and results varied by site and organization. (More details of this study are discussed by Wells and his colleagues in this issue.)

The different outcomes of prepaid and FFS practice that were noted among psychiatrists did not apply to other therapists or general clinicians, who did equally well in both settings. Because psychiatrists treat the sickest patients in all settings, these results raise concerns about the quality of care of those with the most serious mental illnesses within HMOs. These data also suggest poorer performance among IPAs, but inconsistencies across sites require caution in interpreting these results.

Neither the HIE nor the MOS studied the treatment of substance abuse in as much detail as other types of mental illness. The only study that focuses in detail on this aspect of prepaid care was a recent evaluation of a prepaid managed care program in an unspecified midwestern city (Thompson et al. 1992). The study examined changes in clinical practices as a prepaid managed care program matured over time. Treatment of substance abuse shifted away from extended hospital care. The principal substitute, however, was not extended outpatient treatment, but rather short-term detoxification. Although the study did not itself measure outcomes, a review of drug treatment by the Institute of Medicine suggests that detoxification in itself is of questionable effectiveness (Gerstein and Harwood 1990). The strong emphasis on detoxification under prepaid care thus seems unlikely to yield successful outcomes.

Most studies focus on outcomes defined in clinical terms. However, a substantial portion of the costs of untreated or inappropriately treated mental illness falls on family members, employers, and other parts of the community. There have been relatively few careful studies of these costs for privately insured patients. One study, however, raises some warning flags. The McDonnell Douglas study of EAPs also compared outcomes for employees covered by HMOs and enrollees in FFS insurance. Employees with psychiatric or substance abuse disorders who were covered by prepaid plans experienced job turnover during the three years after they began treatment at three times the rate of those covered by FFS insurance. Although dissimilarities in the demographics of the two groups and other selection effects could account for some of this discrepancy, nevertheless, even after controlling for demographic differences, more than twice as many HMO enrollees lost their jobs after the onset of

treatment (McDonnell Consulting Corporation and Alexander Consulting Group 1989).

Because relatively few patients with severe mental illness are enrolled under private insurance, the impact of prepayment on enrollees with these conditions can better be understood by examining experiments with capitated payment arrangements under the auspices of state Medicaid programs. Several states have begun to experiment with forms of prepayment, including Minnesota, New York, California, Utah, Arizona, and Colorado.

Evaluations of the capitation experiments in Minnesota (Finch et al. 1992), New York (Babigian et al. 1992), and Utah (Manning et al. 1993) indicate that prepaid care is associated with a reduction in admissions or number of days hospitalized for mental illness. The magnitude of these reductions varied from state to state, ranging from modest and statistically insignificant (Utah) to substantial (New York), where inpatient costs were only half as large under capitation as in the traditional system. In Minnesota annualized claims data showed no significant difference in the probability of an admission, but the average number of treatment days in prepaid practice was significantly less than in FFS practice (1.56 versus 3.46) (Finch et al. 1992). Using data from surveys at baseline and after one year, no significant differences in the percent with any admission or in the number of admissions emerged between prepaid practice and fee-for-service after adjustments. The unadjusted data showed significantly greater reductions in the percent with any admission in the past 12 months in FFS practice (Moscovice et al. 1993).

The results for outpatient use were even less consistent. The New York capitation program that showed the largest reduction in hospitalization was also associated with the most dramatic increase in the use of outpatient services under capitation. In Utah and Minnesota, use of outpatient mental health services declined under capitation, although the differences between capitated and FFS plans were not statistically significant. These findings must be viewed as preliminary. All come from only the first year of experience under capitation, and only one study randomized patients.

Medicaid enrollees with disabilities and mental illness were randomly assigned in a Health Care Financing Administration (HCFA) demonstration, in Hennepin County, Minnesota, into prepaid and FFS alternatives. Although four plans agreed to provide prepaid care to the mentally ill population, the largest provider, a Blue Cross/Blue Shield (BC-BS)–spon-

sored plan, announced its withdrawal from the demonstration seven months after it began. Because the state was concerned about accommodating those in the BC–BS plan, it withdrew all disabled enrollees from the demonstration after the first year. Although the time span was limited, data were collected at baseline and when the intervention ended, and a subpopulation of 370 clients with schizophrenia was also followed up 11 months after its withdrawal from the demonstration.

In this demonstration project, a range of measures of health status, physical and social functioning, and psychiatric symptoms were obtained at baseline and follow-up (Lurie et al. 1992). There were few statistically significant differences between the prepaid and FFS groups. For reasons that are unclear, 12 percent fewer clients in prepaid practice reported being victimized at time 1, but they also reported an increased likelihood of attempting suicide (7 percent). Among the schizophrenic group in prepaid practice, there was a nonsignificant decline in global assessment score between baseline and time 1, but the decline continued and reached statistical significance at time 2, 11 months later. The prepaid group, compared with FFS patients, had less outpatient physical care, fewer annual visits, and fewer inpatient admissions for physical problems. They were also less likely to receive either inpatient or outpatient chemical dependency treatments. Although there were no differences in the number of inpatient mental health admissions, prepaid patients had shorter lengths of stay (1.56 versus 4.3 days) and were more likely to report being refused care in the prior year (17 percent versus 12 percent; $p = .06$), primarily at the emergency department.

The period of observation in this study is short and its generalizability uncertain. Great effort went into structuring the demonstration, and careful attention was given to maintaining continuity of care during the transition (Christianson et al. 1989). Only 15 percent of clients changed providers, although providers were now operating under new financial constraints (Lurie et al. 1992). In the demonstration participating plans could not require a patient to obtain a physician referral to nonphysician mental health providers. Most of the community agencies previously available to these patients continued to be available, and there was little indication that previous patterns of use among those randomized to prepayment changed in any significant way (Christianson et al. 1992). The one major difference was that cost write-offs were higher for the prepaid group, indicating that prepayment was being indirectly subsidized by the nonprofit and public sectors.

The ambitious capitation program developed in Monroe County, New York, covers severely ill patients with a history of extensive use of psychiatric services (Babigian and Marshall 1989). A nonprofit community service corporation was developed that received state funding and contracts with CMHCs to provide care for designated patients on a capitation basis. Different capitation rates were used for patients with varying levels of prior utilization. Patients in this capitation program were monitored in terms of cost and outcome measures, but large selection factors between capitation and comparison groups make evaluation difficult (Babigian and Marshall 1989; Babigian et al. 1992).

Outcomes for patients under prepaid and other settings appeared broadly comparable. Enrollees in the prepaid plan were somewhat more successful at living in unsupervised community settings and exhibited fewer severe symptoms, but they also imposed higher costs on family members and were less involved in productive activities (Babigian et al. 1992). These findings, however, are limited by serious methodological difficulties.

Manning and his colleagues (1993) analyzed the first year of experience of Medicaid beneficiaries with a diagnosis of schizophrenia who were enrolled in the Utah Prepaid Mental Health Plan compared with those in an FFS plan. Prepaid providers were not at financial risk during the first year, and thus the capitation incentives were weak. Although patients were not randomized between prepaid and FFS plans, and there were major selection effects, the capitated patients at baseline were sicker and had higher prior inpatient and outpatient utilization. Using pre- and postrespondent interview data on mental health status, functioning, satisfaction with care and utilization, the researchers compared the two groups, adjusting for baseline demographic characteristics and other baseline measures. There were no significant differences, although the lack of precision makes it difficult to reject the hypothesis of no difference. There were indications of less outpatient utilization among formerly high users under the capitation plan, but this finding was highly sensitive to model specification. There were no differences in mental health status or functioning.

Thus, for the severely mentally ill covered by Medicaid, prepayment appears associated with few significant changes in outcomes, with some modest evidence of improvements in a few dimensions and hints of problems in others. All the studies, however, are limited, and a convincing demonstration and evaluation is yet to be carried out.

Several of the state-run demonstration projects separately analyzed treatment of mental illness and substance abuse. Researchers studying the Minnesota demonstration identified enrollees in need of treatment based on their prior use of substance abuse services (Finch et al. 1992). For this subgroup, inpatient admissions to psychiatric hospitals were significantly lower under prepayment than under FFS coverage. However, there was also a substantial decline in outpatient utilization. The probability of receiving any treatment for substance abuse problems over a three-month period was only 40 percent as high in the group enrolled under prepaid care as under FFS coverage. The New York demonstration project also separately measured use of treatment for chemical dependencies. No individual under either prepayment or FFS coverage was admitted to a hospital to treat substance abuse problems. Outpatient use was about equal between prepaid and FFS groups.

Existing studies include few measures that are sensitive to issues of untreated substance abuse. This is a serious omission. A large fraction of people with serious mental illness also have a substance abuse problem. Yet relatively few are treated for this problem. Evidence from the prepaid demonstration projects suggests that the probability of treatment for substance abuse is certainly no higher and may be significantly lower under prepaid care.

Utilization Review Organizations

It is estimated that several hundred companies now provide utilization review services for mental health care among other activities. Most of what is known about the consequences of utilization review for mental health care comes from studies of privately insured populations.

Hodgkin (1992) reviews the literature and problems in evaluating much of the existing UM data. He concludes:

> There has been a shortage of formal studies concerning the impact of private psychiatric UM on utilization and costs. But despite their shortcomings, the anecdotal/uncontrolled studies . . . agree on the direction of impact, with UM lowering use and costs by some nontrivial amount. . . So far there is little hard evidence to support either the claims made for UM as a quality-improving refinement or the claims against it as a dangerous intrusion. (152–3)

One of the more carefully controlled sets of analyses at Aetna compares a telephone-based precertification and concurrent review of inpatient care (called focused psychiatric review) with a comprehensive EAP counseling and referral program, networks of preferred providers, and precertification of services, case management, and benefits counseling (called managed mental health care [MMHC]). These analyses cover nine quarters of experience over three years and compare companies with these programs to each other and to others without utilization management. Over the nine quarters, researchers found that both forms of UM achieved savings relative to no utilization management, but that the more comprehensive program was superior to focused psychiatric review in reducing utilization and cost of mental health and chemical dependency services. Although savings vary by the types of comparisons and analyses, they appear to be substantial—in the 15 percent range (Ahmed et al. 1992; Smith 1992; Gotowka and Smith 1991).

Only a few of the studies separate spending on substance abuse treatment from that on other mental health services (Ellis 1992; Gotowka and Smith 1991). Those that do suggest that savings can be achieved by reducing inpatient treatment of substance abuse. However, as with prepaid care, the reductions in inpatient treatment do not appear to be associated with large increases in outpatient care. For example, a study of one large employer-based PPO found that inpatient episodes fell by over 40 percent once the PPO was established, although outpatient treatment increased less than 20 percent (Ellis 1992). Again, one form of treatment appears to be reduced without substituting alternative treatments.

The statistical analyses on which evaluations of UM are based have a number of important limitations. One stems from a lack of measures of the content (stringency) of the review process. As noted above, of the two utilization review programs evaluated by Aetna, the more comprehensive was associated with lower costs. This was also a program, however, which relied on EAPs, and it is unclear whether the case management controlled costs or whether the EAPs were effective in identifying problems early before they became costly.

A second shortcoming of such research involves narrow definitions of cost. The net cost reductions reported for utilization review should not be taken at face value. These are savings for the employer, but the true costs may be shifted to patients, their families, providers, and the community. Some patients view UM as an intrusion on their privacy and may elect to purchase necessary care on some other basis, or to forgo

needed care entirely. UM creates large administrative costs for hospitals and physicians that are not only expensive in time, effort, and personnel, but also involve a "hassle" factor. In addition, it may encourage manipulation of data to justify preferred treatment plans. Other possible costs are reduced productivity, family and community disruption, and increased demand for other medical and social services. In the absence of comprehensive cost information and measurement of outcomes, even seemingly large effects may be balanced by other unmeasured costs (Borenstein 1990; Melnick and Lyter 1987).

Perhaps the most important limitation of these studies again involves issues of selection. Because there were no experiments randomly assigning enrollees to plans with and without utilization review, it is difficult to ensure that those whose mental health care is "managed" through the review process have needs similar to those in unmanaged insurance plans. In fact, the existing evidence suggests that these groups are quite different. In the evaluation of utilization review programs developed at Aetna, the researchers compared the rates of mental health care utilization in plans before they were placed under utilization review with the rates of plans that involved no such review. Not surprisingly, the companies that opted for utilization review programs were the ones that had been experiencing very high mental health care costs. These costs declined significantly after the programs were put in place, *but remained slightly higher than in the programs without utilization review.*

The speed and magnitude of the decline in use leads us to believe that this was not simply a statistical artifact. However, the fact that utilization review programs can achieve costs savings in previously high-cost plans does not necessarily mean that savings of the same magnitude, or even any savings at all, would be achieved if this system was imposed on groups that previously had lower costs. Utilization review achieves its savings by comparing treatment practices with some set of norms or criteria. Consequently, groups with relatively high costs can be brought into line with prevailing practices. There is no evidence, however, that utilization review can change average treatment practices. A decent database is totally lacking on the effects of utilization management on the quality and outcomes of care.

Although various forms of utilization review have been incorporated into a number of state Medicaid programs, there has been very little evaluation of this form of managed care. A recent study of reforms in Massachusetts represents the first extensive assessment (Callahan et al.

1994). Beginning in 1993, Massachusetts contracted with a private agency to manage the mental health and substance abuse services for all Medicaid recipients who did not have overlapping coverage from some other source (Medicare, private insurance). The agency was at modest financial risk; it kept 10 percent of the savings and was liable for 10 percent of any cost overruns. It established a PPO network, contracting with roughly half the providers who had previously served this population.

The assessment of this model relied on comparisons of performance between the treatment system that had existed prior to the reform and the services that were delivered under the PPO. Comparisons were based on utilization data, as well as on surveys of providers and other "key informants" knowledgeable about the mental health care system. After one year of operation under utilization management, inpatient treatment for both mental illness and substance abuse declined dramatically. Much of this took the form of substitution of lower-cost forms of residential treatment for inpatient care, with little increase in use of outpatient services. Overall costs declined by more than 20 percent in the first year of the program, although only half of these savings could be attributed to utilization review (the rest came from lower negotiated prices with providers).

For most forms of treatment, providers and other informants rated the quality of care as good or better than had existed before the PPO was established. (Results were somewhat better for mental health care than substance abuse.) Respondents were also generally positive about the process of utilization review that was a part of the program. Hospital recidivism remained virtually unchanged for most types of patients. The sole exception involved mental health services for children. For these clients, hospital readmissions increased substantially. Surveys suggested that quality of care for children declined and that there were significant problems with the clinical review process used for this group.

Like most of the studies reviewed here, these findings are somewhat compromised by the fact that only short-term outcomes are measured and that the collected measures focus almost entirely on clinical factors. It is thus difficult to determine the longer-term consequences of managed care or the weight brought to bear by utilization management in shifting costs from formal providers to informal caregivers. The concerns about children's services are relevant to this last point. Much of the criticism of the utilization review in Massachusetts stemmed from complaints that children were being discharged too quickly from hospitals—before

their treatment plans had been adequately established or medications stabilized. The availability of family caregivers may have encouraged reviewers to favor early discharge, but the costs thereby created for families were not assessed in the evaluation. The Massachusetts experience may also have reflected selection biases like those in studies of private sector utilization management. Massachusetts adopted a managed care system in part because the costs of mental health care for its Medicaid recipients had been increasing extremely quickly, rising by 50 percent between 1990 and 1992. This may have made the system an unusually good prospect for cost savings.

High-Cost Case Management

Case management is used in two distinct ways in the UM literature. In the private sector context, it refers to identifying a relatively small number of cases associated with high utilization or high costs and working with clinicians to help identify alternative and less costly treatment approaches. Case managers in these instances become involved in treatment and discharge planning, and some have the authority to provide services not covered by insurance as an alternative to inpatient care. Relatively little is known about such private sector programs. Ciba-Geigy attributes a drop of 26 percent in psychiatric costs for its employees managed in this way (Hodgkin 1992), but no published studies are available on this point. A comparable study of case management under the auspices of the EAP program at McDonnell Douglas suggested that EAPs significantly reduced the costs and increased the effectiveness (measured by absenteeism and job turnover) for employees with psychiatric or substance abuse problems (McDonnell Consulting Corporation and Alexander Consulting Group 1989). It is unclear, however, whether this is the result of case management by the EAP or better identification of employees who are having problems.

The one statistically sophisticated study to evaluate high-cost case management did so in the context of evaluating a range of utilization review programs in 25 large and medium-sized companies (Brookmeyer and Frank 1993). The study provided little evidence that case management reduced costs. Controlling for other forms of utilization review, companies that used high-cost case management experienced significantly longer lengths of stay. Case management had no measurable ef-

fect on hospital readmission rates. Again, however, there were no controls for selection effects. It is possible that companies that were motivated to implement case management were ones with a history of extended hospitalizations and expensive treatment, so that historical patterns in use might have offset any changes in treatment induced by the case management program.

Case management has been used extensively in public sector programs serving persons with serious and persistent mental illness. In many of these programs, the major motivation is not cost reduction, but rather maintaining a treatment plan and coordinating services. More expensive intensive case management, typically using mental health professionals who have a relatively small caseload of seriously ill and disabled patients, targets those patients who use extensive emergency and inpatient services. Existing studies suggest a mixed picture of some positive results and other less remarkable ones. The specific structure of varying case-management models is crucial to any evaluation.

Assertive case management can either be part of a highly integrated system of care (Stein and Test 1985) or free standing (Surles, Blanch, and Shern 1992). The best evaluated program is the Training in Community Living Model developed in Dane County, Wisconsin. Early evaluations of the Community Living Model showed that it was possible for highly impaired clients to be cared for almost exclusively in the community (Stein and Test 1985). Compared with controls, patients in the assertive case-management system made a more adequate adjustment, as evidenced by higher earnings from work, involvement in more social activities, more contact with friends, and more life satisfaction. They also had fewer symptoms (Stein and Test 1985). An economic evaluation showed the program was slightly more expensive than traditional treatment, but cost effective (Weisbrod, Test, and Stein 1980). Although additional studies of assertive case management modeled on the Wisconsin program show substantial success in reducing hospital use, they do not consistently find more favorable clinical or quality-of-life outcomes (Olfson 1990; Bond et al. 1988).

New York's free-standing intensive case management system is targeted at young, single, unemployed males with a diagnosis of schizophrenia or major affective disorders, most of whom also have a secondary disability (usually substance abuse) (Surles, Blanch, and Shern 1992). The program is intended to supplement the existing system of care, and

is not a substitute. Significant reductions occurred in number of inpatient admissions and inpatient days in public facilities. Admissions dropped on average over six months from .48 to .26, and number of hospital days, from 46 to 30. These changes occurred in the first six months with little change over the second six-month period. The authors believe that the stability of utilization during the year before the program started makes regression toward the mean an unlikely alternative explanation for reductions in utilization. Preliminary evaluations show a modest reduction in unmet needs over the course of the first year across an array of services including housing, medical, and vocational services, although most changes occurred in the first six months. In contrast, symptomatic change occurred only later (after one year), including reductions in withdrawal and anxiety. Reduction in substance abuse was observed after both six months and one year (Surles, Blanch, and Shern 1992).

Curtis et al. (1992), on the other hand, present data from the Harlem Hospital Center's department of psychiatry on the impact of case management on utilization and rehospitalization rates after discharge. The Community Support System (CSS) offered case management for the most seriously mentally ill patients. Patients who did not meet criteria for inclusion in the CSS were randomly assigned into an intensive case management group and a control group that received only routine care after discharge. Patients were followed for up to 52 months following discharge. The researchers found that patients who received intensive case management had higher rates of rehospitalization than the comparison group that received only routine aftercare. The patterns of care for the intensive case management group were comparable to the chronic cases that were assigned to the CSS program, and the program did not reduce readmissions or costs. Others also report that case management may not reduce costs or improve outcomes for the chronically mentally ill (Franklin et al. 1987; Borland, McRae, and Lycan 1989; Hornstra et al. 1993).

Borland, McRae, and Lycan (1989) present results from a five-year follow-up of patients who participated in an intensive case management demonstration project in Spokane, Washington. Utilization rates for the two years prior to entering the program were compared with five-year follow-up data for 72 seriously ill patients who had a thought disorder, most commonly schizophrenia. They found that hospitalizations declined over the five years. Although inpatient costs were reduced, these

savings were offset by increases in costs for residential treatment and other services. In the follow-up of patients, global assessment scores were measured at baseline and each month over five years. Patient functioning did not change significantly over the period (Borland, McRae, and Lycan 1989).

Bond et al. (1990) evaluated a case management approach modeled after the Training in Community Living program. They randomly assigned patients with a serious mental illness to either a drop-in center or an assertive case management program. Interviews with patients were conducted 12 months after entry into the study. Clients in the case management program had fewer inpatient admissions. Patients were less likely to drop out of treatment and reported greater satisfaction with their care, fewer difficulties with problems in life, fewer contacts with the legal system, and a greater likelihood of stable living arrangements. These findings, however, are limited by the 25 percent attrition rate in the study.

Although still infrequent, a few states have begun to experiment with comparable programs for dealing exclusively with substance abuse. Minnesota has developed one of the more extensive programs of this sort (C. Turnure 1993: personal communication). Although preliminary assessments suggest that the case management function has improved the allocation of services and controlled the growth of costs, there have been no careful evaluations of such programs.

Contradictory findings regarding the impact of case management may be due to differences in the definition of case management, the types of systems of care within which case management is embedded, the types of clients served, and the designs of particular studies (Clark and Fox 1993; Chamberlain and Rapp 1991). Inconsistencies among studies are also due in part to different outcome measures. Patients in many of these programs have serious and often intractable mental illness, and measures of illness and symptoms may not show persistent changes even in excellent programs. In contrast, measures of social function, quality of life, involvement with the legal system, stability of living arrangements, and client satisfaction may be more responsive to the quality of case management. Useful answers will require clear specification of the characteristics of the intervention and specific outcome measures involving the client, the family, and the larger community. Case management has significant potential for reducing costs for high users of services depending on the system of care within which it is embedded.

Cost Offsets in Medical Care

An extensive literature suggests that appropriate use of mental health care can reduce other medical expenses by eliminating some inappropriate use of these other services (Follette and Cummings 1967; Jones and Vischi 1979), although the statistical support for this conclusion has been inconsistent (Borus et al. 1985). Managed care might, by promoting more appropriate treatment of mental illness and substance abuse, capture some of these cost offsets. The increasing tendency to "carve out" mental health from broader health care coverage may limit the potential for cost offsets and, in contrast, may encourage cost shifting.

Evidence is limited, but experience suggests that cost offsets are achievable, at least for some groups of patients. The McDonnell Douglas EAP study identified substantial cost offsets from the use of EAPs to manage treatment of psychiatric conditions, although this evaluation found smaller cost savings for the treatment of drug abuse (McDonnell Consulting Corporation and Alexander Consulting Group 1989). Aetna researchers found an interesting and important medical cost offset effect in comparing the managed mental health program with the more limited focused psychiatric review program—a $26.18 decline per employee per quarter in use of outpatient medical services. They attribute this saving to the managed mental health program, "which channeled people in need of psychiatric care to psychiatric providers in the network of preferred providers rather than allowing them to be treated as medical cases. Thus, the policy holders with the managed mental health program benefited from the superior case management provided by the organized delivery system composed of the EAPs, the case workers, and the network of preferred providers" (Ahmed et al. 1992).

Summary and Conclusions

The research literature and anecdotal reports from the field suggest some plausible, although less than firm, conclusions. These can be grouped into three categories:

1. What we can expect of the typical managed care plan covering mental health and substance abuse.

2. What potential is offered by the best and most effective versions of managed care.
3. What risks are associated with less careful applications of managed care.

In general, it appears that the application of managed care to the treatment of mental illness and substance abuse can produce a substantial reduction in costs. Prepaid group practices provide lower-cost care by reducing hospitalization and often by substituting less expensive and less intensive outpatient services for more costly approaches. Cost savings under UM are due primarily to reductions in hospitalization. UM results in significant decreases in costs for groups that had previously experienced above-average expenditures for these services. There is less compelling evidence that UM can reduce costs for groups that had not previously incurred high costs.

A somewhat larger number of enrollees both in HMOs and UM programs receive *some* treatment for mental illness. Fewer receive extended treatment in HMOs; comparable data are unavailable for patients under UM with FFS insurance. For prepaid coverage of mental health services, cost savings appear to be associated with few significant reductions in health outcomes for the average patient, but there may be decrements in care for those most severely ill (see Wells et al. in this issue). There is, however, no comparable evidence about quality of outcomes for management of the treatment for substance abuse.

Managed care plans have the potential to improve and apply standards of appropriate treatment in areas where practice variations are large and where there is substantial potential for unnecessary or unduly expensive treatment. Some forms of managed care have been successful at incorporating more flexible benefits and innovative treatment programs for both publicly and privately financed mental health care. This enables intelligent substitutes to be made for inpatient care and a broad assortment of services to be offered that may be more helpful than a hospital admission. Such innovations are most common in plans that specialize in the management of mental health problems. Plans that specialize in managing services for the seriously mentally ill appear to offer promise of maintaining quality, partly because of the expertise they develop and partly because of their links with other vital services that persons with serious mental illness often need.

Managed care may be applied to the treatment of mental illness and

substance abuse in ways that are not sensitive to the special characteristics that distinguish these conditions from other health needs. There is some evidence, for example, that enrollees in these managed care plans are less likely to have their mental illnesses identified and diagnosed, and that persons with more serious conditions are less likely to be effectively treated. Further, there are suggestions that patients in HMOs may incur larger social costs such as loss of their jobs. Under a number of managed care plans, reductions in hospitalization for substance abuse do not appear to be associated with increases in outpatient treatment. Some studies indicate that substantially fewer enrollees receive substance abuse treatment under managed care, suggesting the possibility of an increase in unmet needs in this area.

Managed care can be used as a strategy for selecting from a flexible set of benefits those services that best meet patients' needs in a cost-effective way or simply as a technique for reducing costs with little sensitivity to quality of care. At its best, managed care has potential for both quality improvements and cost savings. Practices are likely to vary a great deal, however. Apart from oversight provided by some state mental health authorities for the severely mentally ill, there are currently no effective mechanisms for regulating managed care practices. It is essential to develop appropriate criteria and effective quality assurance mechanisms for monitoring the care of people with serious mental illness or substance abuse problems and incentives for stimulating the development of case management models that appear to be most effective (Schlesinger and Mechanic 1993).

Given the complexity of the managed care environment, the rapidity with which it is changing, the complicated combinations of UM techniques, the absence of agreed-upon clinical standards, and the limited information on performance, it is unlikely that we can soon have convincing answers about quality and cost effectiveness. Research should be intensified in these areas.

Because various forms of managed care have become a part of virtually all programs paying for mental health services, the highest priority for research must be to establish the consequences for quality of care when external management reduces inpatient care or overall service use. Evidence of both exemplary and disquieting managed care practices is easy to find. Because the process of managed care depends substantially on reviewers exercising their discretion, variability is to be expected. From the standpoint of public policy, however, it is essential to establish how

the average managed care system performs, as well as to identify the attributes of managed care methods that predict outliers, both good and bad. Case studies of individual plans or demonstration projects, the mainstay of past research in this field, cannot address these issues. More comprehensive data must be collected, despite the obvious challenges in developing an appropriate national sampling frame for either the organizations managing care or the individuals receiving mental health care under their auspices.

A second priority for future research on managed mental health care should be to better link evaluation methods to a conceptual framework for how managed care shapes the delivery of services and the nature of the patient–provider relationship. In the initial wave of evaluations of managed mental health care, there was some value in simply documenting the overall experience with programs of this sort. The most substantial effects of managed care, however, are likely to involve either particular subgroups of the mentally ill or specific forms of managed care. To focus research more effectively, evaluations must be better grounded in conceptual models of managed care arrangements.

The basic groundwork for predictions of this sort already exists in the literature. We will illustrate with several examples: It has been hypothesized that at least some forms of managed care will encourage, through the incentives associated with prepayment, more effective triaging of patients, matching services to needs, than exists in the current system. If this occurs, it is most likely to be evident for patients newly entering the system or for those whose condition has changed significantly in the recent past, not for those who have long-established relationships with providers. To assess these purported consequences of managed care, one ought therefore to focus on those who have recently moved to the area or have recently experienced an onset of a mental illness.

The same principle applies to identifying the negative effects of some forms of managed care. Most of the predicted cost savings from managed care rest on theories about the potential for substituting less expensive alternative care for inpatient services. Yet we found that some studies indicate that managed care reduces both inpatient and outpatient care, and others show no increased outpatient utilization when inpatient services are reduced. In the absence of contradictory information, this suggests that managed care is operating more as a rationing system and not as a means of achieving a more appropriate balance of inpatient and outpatient services.

Theory also suggests that the care provided under a prepaid managed system will deviate more from the social optimum the larger the costs displaced on the community (Schlesinger 1986). This is most likely to occur, for example, with enrollees who have family caregivers or who receive care from other service systems. To assess these concerns, one ought to focus on such groups. Indeed, from this perspective, one can readily understand why the Massachusetts managed care system appears to be performing least well for children. This group is far more likely to have family members available for support than are mentally ill adults, and is therefore more subject to cost shifting from formal to informal caregivers. Children's needs are more likely than adult needs to involve several government agencies, making it possible to shift costs more readily from the mental health specialty sector to other social services. The most important implication is not necessarily that children's mental health services will fare badly under managed care, but that the same problems are likely to emerge for any group that has similar characteristics.

To effectively evaluate the influence of managed care on any of these groups or settings, it is essential to develop a more comprehensive set of measures for both outcomes and process than have been used in past research. Quality of care is a complicated concept, and its assessment can rely on implicit reviews of appropriate clinical decision making, measures of clinical symptoms, assessment of social functioning, and client satisfaction with care or quality of life. For the seriously mentally ill, indicators such as suicide attempts and completions, acts of violence, levels of victimization, and criminal involvements are also important criteria. Measures of this sort are found in virtually all past evaluations of managed mental health care, although there has been little effort to use a consistent set of outcomes from study to study or to measure them in a consistent manner.

To assess fully the consequences of managed care, however, a broader array of outcome measures must be used to take into account the burdens of untreated mental illness on families and neighborhoods, including the physical and mental health of caregivers and the social costs of community living for people with mental illness. Admittedly, these are difficult outcomes to monitor, but comprehensive assessments of managed care cannot ignore them, precisely because of the potential for cost shifting under managed care. To repeat (and slightly revise) the essential point with which we began this review: reducing the use of mental health services is no difficult accomplishment; doing so in a way that

maintains or enhances quality without shifting costs is far more difficult and problematic.

Serious mental illness and substance abuse are heterogeneous categories encompassing conditions that vary widely in their manifestations, course of illness, and appropriate forms of treatment. It was rare, however, to find studies of managed care that differentiated among different forms of mental illness. Because diagnosis is a poor predictor of resource need among the mentally ill, it is essential to understand how managed care plans differentiate among different forms of mental illness and how they respond to different levels of severity.

Perhaps the greatest challenge to the effective measurement of outcomes from managed mental health care involves the time frame for the study. Serious mental illness is a long-term phenomenon with a fluctuating trajectory. Studies that simply report outcomes after several months or a year under managed care do not appropriately come to grips with the potential for plans to achieve short-term savings at the expense of longer-term costs. We did not find a single study of managed mental health care that had both comprehensive outcomes measures and extended longitudinal data collection. The best studies involve evaluation of public sector programs where careful patient description is more common, multiple outcome measures are used, and evaluations may extend over several years. Evaluations of private sector managed care are more limited in these respects. Although both the RAND Health Insurance Experiment and the Medical Outcomes Study are exemplary in many ways, they examined few outcomes beyond those involving the individual patient, and they included too few cases of persons with serious mental illness to allow reasonable extrapolation of results to these populations.

Studying managed care outcomes over longer time periods is difficult because managed care itself is rapidly evolving in response to individual plan experience, changes in clinical norms, and the development of standards within the utilization review industry. Moreover, because external review depends to a great extent on the experience and judgment of reviewers and those who manage them, turnover of personnel may create substantial fluctuations in performance of managed care systems.

Because constrained research budgets will always make it difficult to collect extended longitudinal data on outcomes, and because these outcomes will fluctuate in response to changing practices within the managed care industry, it becomes important to develop further process measures

of managed care that can identify changes in the ways organizations are reviewing and influencing clinical practices.

The heterogeneity of managed care is perhaps the strongest reason for extensive process evaluations. The managed care program evaluated in Massachusetts, for example, was radically different from managed mental health care programs assessed in Minnesota, New York, or Utah. Public sector managed care often employs very different methods than its private sector counterparts. As different organizational arrangements for managing mental health care have proliferated, the generic label "managed care" becomes a less useful description, as do various other typologies that have been devised for classifying managed care systems (Hillman et al. 1992). The only way effectively to "understand" a managed care intervention therefore is to assess carefully the ways in which it operates: the financial incentives it creates for providers, the scope and nature of its utilization review processes, the resource constraints it imposes on particular modalities of treatment.

There has been remarkably little evaluation of the ways in which managed care affects mental health care. As therapists become allocators as well as caregivers, it will be more important to understand how they advocate for patients, particularly when their remuneration is tied to utilization targets. Attention should be directed to complaints mechanisms and grievance procedures within managed care organizations and how they function for people with mental illness. Other important indicators relate to patient trust in their caregivers, caregivers' understanding of appropriate goals and roles for agency under managed care, and patients' efforts to change managed care practices through litigation or political action.

Ultimately, both researchers and policy makers must recognize that managed care is simply an enabling structure for making decisions. The quality of the practices that occur within that structure depends on the incentives that the managed care firms develop for their employees and providers, the level and sophistication of criteria and systems of review, the qualifications and judgments of reviewers, the effectiveness of supervision of their decision making, and the responsiveness of organizations to problems and complaints. Organizations that on the surface appear similar may perform quite differently depending on these and other factors. Although this means that research will *never* establish a simple comprehensive assessment of the consequences of managed mental

health care, it also suggests that there are a variety of mechanisms through which purchasers of managed care or government regulators could potentially shape the performance of these organizations. It is only when we develop a more complete picture of the process by which managed care affects outcomes that its potential for achieving efficiency while protecting or enhancing quality can be fully realized.

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