Issues and Approaches in Evaluating Managed Mental Health Care

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MANAGED HEALTH CARE IS RAPIDLY BECOMING THE backbone of health care delivery in the United States (Sederer and Clair 1989; Ellwood 1988). Yet little is known about its effects on access, quality, and outcomes (Tarlov et al. 1989; Dorwart 1990), partly because managed care is heterogeneous. Many different studies of alternative forms of managed care are required to understand its effects. In this article we address the topic of research on managed mental health care by reviewing its definition, the challenges it presents, and the basic principles to be followed when conducting this research.

The Institute of Medicine defines managed care as "a set of techniques used by or on behalf of purchasers of health care benefits to manage health care costs by influencing patient care decision making through case-by-case assessments of the appropriateness of care prior to its provision" (Institute of Medicine 1989). The term "managed care," however, is commonly used more broadly to refer to programs designed to control access to care, types of care delivered, or the amount/costs of care. The

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purposes of managed care under this broader definition include cost containment and allocation of resources, as well as monitoring and improving quality and/or outcomes of care. To date, cost containment and resource allocation have been emphasized, but we will work within the broader definition. In the next section, we will briefly describe relevant forms of service delivery.

Managed Care Delivery Systems

Preferred provider organizations (PPOs) are networks of providers that are usually organized by third-party carriers or managed care companies. PPOs reduce their fees to attract consumers; select panels of providers who are considered to be highly competent and efficient, with the aim of attracting patients and lowering costs; enter into contracts with large firms to help recruit providers who hope to expand their practice; and utilize review procedures to control costs and/or assure quality (Wells, Hosek, and Marquis 1992). Because their structure and activities are so variable, it is difficult to generalize about PPOs (Wells, Marquis, and Hosek 1991; Zwanziger and Auerbach 1991; Altman and Frisman 1987). These networks constitute one of the most rapidly growing, but least studied, forms of managed care.

Group-practice-style health maintenance organizations (HMOs) rely on capitation and other incentives to provider groups or to the whole plan to control costs, and they offer predictable premiums to attract consumers (Luft 1978). The group practice structure facilitates access to, and more selective use of, specialists, including mental health specialists, often through a primary care gatekeeper (Tischler 1990). HMOs commonly also lower costs by relying on nonphysician providers and by employing less expensive procedures like brief treatment or group therapy, rather than long-term or individual therapy. Independent practice associations (IPAs), another form of prepaid care, rely on capitation and more loosely connected individual and small group practices to produce some of the same efficiencies as group-practice-style HMOs (Tarlov et al. 1989). Increasingly, group practices may provide care under a variety of prepaid and managed fee-for-service contracts with different types of financing arrangements for different patients. Patients, in turn, may face different

types of reimbursement rules for different providers, especially under "point of service" coverage (Hoy, Curtis, and Rice 1991).

Larger group practices often conduct their own managed care monitoring activities, such as utilization and peer review, precertification, and practice profiling; this offers clinicians greater control over cost-reduction and clinical decisions (Astrachan and Astrachan 1989). From the perspective of a contracting employer or insurer, in-house management may be less costly than contracts with independent managed care companies, although the latter may nevertheless be called upon to act as consultants for the in-house activities.

Medicare's prospective payment system (PPS) is a form of managed care that relies on supply-side cost containment: through preset reimbursement amounts either for a given hospital (i.e., TEFRA) or for a given diagnosis related group (i.e., nonexempt PPS). In addition, under PPS, cost containment is promoted through precertification procedures, concurrent review, and other forms of utilization review conducted by the peer review organizations (PROs) (Jencks, Horgan, and Taube 1987; Wells et al. 1993).

Independent managed care firms, including specialty managed mental health care firms, reflect perhaps the largest degree of diversity because they do not represent any one system of health care delivery, but rather offer a variety of services to employers and third-party carriers. The free enterprise inherent in private sector managed care in response to intense competition for patients means that every managed care firm prides itself on the uniqueness of its own managed care methods.

Increasingly, mental health and substance abuse benefits are specified and managed separately from general health benefits in employer-sponsored insurance (Hoy, Curtis, and Rice 1991). In these "carve-out" arrangements, managed care firms may also contract with provider groups (i.e., a mental health PPO) to administer service delivery and to manage costs. Both management and service delivery may be provided under a capitated contract, making the managed care firm, in essence, a mental health HMO and thus an independent form of service delivery.

Employee- and employer-sponsored health prevention and service programs, including employee assistance programs (EAPs), originated in attempts to improve services, for both employers and employees, by facilitating access to care, particularly for substance abuse, in order to improve work performance and job stability (Jerrel and Rightmyer 1982).

Over time, many of these programs have also helped to contain costs and to allocate resources. For example, some large employers have structured their EAPs as gatekeepers and managers of mental health services delivered by a PPO or an HMO.

As a special subset of employment-related concerns, workers' compensation and disability plans face particularly high costs of care for work-related disabilities. Many of these programs have turned to managed care procedures, such as utilization review and case management, to promote return to work or reduce service costs; these activities are sometimes contracted to a managed health care company.

Increasingly, state and county service agencies are using aspects of managed care to control costs, allocate resources, or increase access or quality of care. For example, some public agencies have instituted capitation for the severely mentally ill (Lehman 1987; Lurie et al. 1992), and they may use implicit or explicit review criteria to control inpatient admission rates (Tischler and Riedel 1973). Some state agencies use case management to promote alternatives to inpatient hospitalization (Bond et al. 1988) or to allocate costly treatments like clozapine. In recent years, the private sector and public sector systems have adopted each other's characteristics as case managers and providers in the public sector engage in more risk sharing and as the private sector adopts more aggressive tactics to manage cases. Much of managed mental health care for persons with severe and persistent mental illness is based on clinical models developed and tested during the last 20 years.

Managed Care Procedures

These forms of health care delivery use specific procedures to achieve the goals of managed care. Generally, these serve to control access to care (precertification and concurrent review, gatekeepers, certain financial incentives), regulate the type, amount, or quality of care or provider (provider panels and profiling, benefit design, treatment guidelines, clinical consultation), and limit output or products of care (for example, tracking and managing outcomes). The more common managed care activities are described here.

Precertification procedures involve approval of services before they are delivered. Originally limited to inpatient admission, precertification is

increasingly used to allocate outpatient mental health care. It typically involves an approved facility or provider delivering an approved service (Hoy, Curtis, and Rice 1991; Tischler 1990).

Concurrent review, also called case management or "intensive case management" when it is focused on high utilizers, involves ongoing review of care at regular intervals in order to allocate the more intensive services, select less costly alternatives, or ensure access to the most appropriate care. In the case of mental health, such review often targets care exceeding specified amounts in terms of costs, visits, or inpatient days. Precertification and concurrent review share certain features: they consider the severity and acuity of the condition; they examine the appropriateness of the type and intensity of care for the condition; they judge the efficacy of the proposed treatment; and they weigh issues like medical necessity and the degree to which the care is custodial in nature.

Gatekeepers are primary care providers, not necessarily physicians, who triage patients to different levels of care and may be responsible for allocating mental health specialty care. Within mental health specialty groups and managed mental health care firms, mental health specialty gatekeepers allocate more intensive or expensive forms of care, such as individual or long-term therapy or hospitalization. Health care systems and managed care firms differ in the level of professional used and in the focus on controlling access to outpatient or inpatient mental health care, or to both types of care.

Provider selection involves review of costs and practice patterns based on computerized data ("profiling") or community reputation to choose providers whose practice is consistent with the goals and priorities of the employer, insurer, or managed care company.

Clinical guidelines and protocols were originally developed to evaluate quality of care (see, for example, Dorsey et al. 1979) and, more recently, to establish standards for the field (Depression Guideline Panel 1993), but in the context of managed care they are generally used to allocate resources or to assure that the level of quality of care matches the cost. Guidelines may use implicit or explicit criteria, they may be based on clinical consensus and/or scientific literature, or, in some cases, they may be more arbitrary in origin. The degree of input by clinicians, particularly psychiatrists, varies considerably across firms and applications. Often the protocols or guidelines used in managed care are not available for review by employers or consumers, and data on the validity and relia-

bility of the criteria cannot be obtained except for use in a research study. Increasingly, components of clinical practice guidelines are being used as the basis for managing episodes of care for specific disease conditions.

Managed care often organizes and controls referral patterns by limiting the number of specialists in an HMO or a PPO (Luft 1978) and by using gatekeepers. While limiting access, such systems may streamline the referral process and promote efficient deployment of specialists.

Benefit definition and redefinition are the most common methods of controlling access, allocating resources, and providing coverage for care. Limits on benefits include lifetime or annual maximum expenditures on inpatient or outpatient mental health care and exclusions on coverage of custodial care in private sector plans. Managed care companies may also promote less costly forms of care by redefining benefits, for example, by waiving an annual limit if a shift to cheaper care promises to reduce long-term costs or increases the likelihood that the patient will return to work.

Clinical consultation is the use of expert clinical opinion to allocate resources or alter treatment patterns. The consultant reviews the case history, and sometimes sees the patient at the request of the employer or the managed care company, not the treating provider or the patient (Astrachan et al. forthcoming).

Evaluating Managed Care

Managed mental health care may be evaluated from a research or societal (external) perspective or from a business (internal) perspective. External evaluations inform policy decisions about regulating or promoting managed care or improving clinical service delivery (Tarlov et al. 1989). Internal evaluations aid companies with their decisions about allocation of resources for health care and other human services and help them to anticipate profits and losses, to establish premium rates, and to inform employees about their alternatives for coverage. Different goals of evaluation (societal versus business) imply different methods and standards of evaluation. Typically, while the business community may perceive that the effectiveness of managed care has been demonstrated, the scientific community may conclude that the data are insufficient. For its part, the business community may view research conducted exclusively from a so-

cietal or research perspective as irrelevant. Thus, successful evaluations commonly address both perspectives.

Evaluating managed mental health care requires confronting particular research challenges. First, the field is in a very early stage of development, which limits the amount of available data. The diversity of managed care forms and activities restricts the degree to which one can generalize from any given study. Because standard operational definitions of the managed care processes, for example, utilization review, do not exist, identifying a suitable approach to a research project requires considerable developmental work, which the usual grant sources typically do not fund because they view it as methodological. For example, time and motion studies of managed care activities have been conducted, but largely for internal evaluations (Tischler 1990); thus, even the costs of managed care activities are not well known.

Second, feasibility is limited by the necessity of conducting the research in a proprietary, competitive, and changing environment. Businesses are rarely interested in carrying out experimental designs because of the disruption to their routines. Further, because companies need to remain profitable and competitive, there is often little time to develop, fund, and complete the process before changes are made in benefits or service delivery programs that may weaken the evaluation of a managed care activity. Turnover in top-level management may result in loss of support for the research project. Companies may feel pressured to obtain results quickly, thereby limiting the range of complexity of the studies that can be conducted.

Third, currently available data sets on managed care are limited. For example, in the area of claims data, problems can occur when data are missing, or when formats for inputting information are changed—often without documentation—so that the data on further claims do not include information on out-of-plan use, as, for example, when patients turn to public mental health services after benefits are exhausted. This requires researchers to evaluate carefully the strengths and limitations of each data source, but often they do not discover the major limitations of data sets until a good deal of work has been done on them. Often, data on costs of care must be carefully imputed from detailed clinical data because HMOs and other capitated forms of care commonly do not maintain accounting of costs of all services delivered. Data from employers—for example, on productivity—may be difficult to access and merge with in-

surance or managed care company data, which limits the amount of relevant outcomes data.

Fourth, the importance of confidentiality to employers, insurers, and patients must be addressed. Employers may not wish the public, for example, to know rates of psychiatric disorder or other indicators of need, especially in service industries or special industries like defense companies. The managed care company may worry about losing clients if evaluations show them to be less cost effective than the alternatives. Employees may be concerned about losing their job if data on mental illness or substance abuse become available (Harris and Fennell 1988). These concerns are greatest for drug abuse because of federal and state regulations and legislation on the hiring and retention of employees with such problems (Secretary of Health and Human Services 1990; Gerstein and Harwood 1990). For example, some employers require employees to be screened for drug abuse both when they are hired and periodically thereafter. Confidentiality concerns may render unrealistic any plans to study some employer/employee sectors.

Approaches to Managed Care Research

Several principles guide the development of research in managed mental health care. First, acknowledgment that the field is in a developmental and descriptive stage would permit researchers to devise less rigorous designs for a time. Although controls for illness severity and other design features to strengthen internal validity should be used whenever possible, comparisons of utilization rates and outcomes will help create a field by clarifying comparisons of potential interest and developing a body of knowledge about the range of possible impacts. Detailed descriptions of samples and health care delivery systems should accompany the descriptive impact data so that key differences across studies can be more easily identified. Research on the effects of fee-for-service (FFS) and prepaid financing on costs and outcomes of care underwent this kind of developmental stage.

Second, consortia of individual providers and companies (employers, insurers, managed care) should be encouraged to pool and analyze their data because many currently unused data sets now exist that could inform the field; the consortia could protect confidentiality and dilute financial risks (by pooling them across companies). Networks of individual

clinicians operating under different forms of managed care could offer some of these same advantages. Nevertheless, such approaches also increase the complexity and costs of studies.

A third principle is to document and enhance the quality of proprietary data sets. At this stage, many companies rely on staff without research training to plan and collect their data sets. The value of such data can be determined through examining consistency, data errors, and missing data; small studies of the reliability and validity of assessments can inform the research community. In addition, outcomes and quality-of-care data can be enhanced by independently collected data, at least on a subsample of clients being evaluated. (For an example of such a combined approach, see Wells, Marquis, and Hosek [1991].)

A fourth principle is to incorporate into the evaluation, when possible, the inevitable changes in benefits or service delivery that occur in a nonexperimental study. For example, individuals originally enrolling in one type of plan may switch to another, leading to adverse selection in one type of plan over time (Robinson, Gardner, and Luft 1993). Similarly, pilot demonstrations may be terminated because the providers feel they are losing money. In some instances, the multiple changes increase the options for comparison groups, especially if the changes are well defined and documented and data on initial health status are available on all groups.

A fifth principle is to maintain an independent evaluator status. The researcher must carefully monitor the degree of his or her independence from the activities of the managed care company and/or employer requesting the evaluation. Although the evaluation inevitably offers technical resources to a company, checks and balances are needed to review the collaboration, and, if necessary, an independent advisory board should serve this function. Researchers should be encouraged to develop guidelines for maintaining their independent evaluator status in this context.

We present examples of evaluations of managed care that reflect some of these issues and approaches.

Internal Evaluation

Table 1 provides data from a large service company in 1989, one year before an aggressive managed care program was implemented; in 1991, the

TABLE 1
Costs[a] of Mental Health/Substance Abuse Care before and after Managed Care Program

	1989	1991	1992
Total costs	105	99.1	97.9
Inpatient	63.2	43.7	33.9
Alternative care	0	11.6	22.9
Outpatient	43.6	43.8	41.1

[a] In millions of dollars.
Source: Adapted with permission from Astrachan et al. (forthcoming).

transition year; and in 1992, a full year after managed care was instituted. Details of the managed care program, and data on how it affected costs, are presented by Astrachan et al. (forthcoming). The new program included a large, organized provider network, a resource and referral telephone service, utilization review for inpatient and outpatient services, managed care case management staff to help tailor benefits to individual needs, clinically detailed quality assurance and audit mechanisms, and a mental health advisory board. Before the program, the company relied on independent providers, limited utilization review, EAPs for referrals, and an inflexible benefit structure.

The data suggest that the implementation of a managed care program was associated with a modest reduction in overall costs of mental health care (which still totaled $7 million) and a substitution of alternative care (partial hospitalization, residential treatment) for inpatient care. Anticipated major increases in expenditures did not occur, however, despite some expansion of benefits.

Although important for what they suggest about costs, these data by themselves do not differentiate the effects of managed care programs. For example, if the patients being served after implementation of managed care are on average sicker than those served before, then savings adjusted for sickness are greater than unadjusted savings; the managed care program is a better "buy" for the company than the unadjusted figures indicate. Further, from a societal perspective, it is important both to include the costs of out-of-plan use and to know how outcomes or quality of care were affected by the new program. Thus, data that are useful for

internal evaluation purposes may be less informative from a societal perspective. However, the most easily accessible data at this time have emerged from internal evaluations, and, in the aggregate, they would be useful for setting priorities for future studies.

External Evaluation

The Medical Outcomes Study (MOS) (Tarlov et al. 1989; Wells et al. 1989; 1992; Rogers et al. 1993) was an external evaluation designed to compare the process and outcomes of care for patients with chronic illnesses, including major depression, dysthymia, and subthreshold depressive symptoms, under FFS and prepaid care. The systems of care included in this study were traditional, single-specialty, small-group and solo practices; large, multispecialty group practices that offered prepaid or FFS care; and large, group practice–style HMOs. Some patients in the solo practices and in the mixed payment group practices received prepaid care because they were participants in IPAs.

The MOS illustrates many of the challenges and approaches to managed care research. To reduce the diversity of managed care programs, the MOS conducted a substudy in the design phase to review potential candidates for types of systems, and then restricted the study to established systems of care that represented major competing systems commonly found in large metropolitan areas. Geographic matching of provider groups and detailed inclusion and exclusion criteria for providers and patients eliminated some sources of heterogeneity.

To clarify the definitions of managed care and insurance components, the MOS included case study descriptions of sites and general, data-based descriptions of type and generosity of coverage as well as switching of plans over time (Sturm et al. 1994); at the same time, the systems were viewed as "black boxes" (i.e., as very general categories of systems, different in a number of respects and not precisely defined). The MOS focused on obtaining details about selected aspects of clinical treatment and outcomes. The small number of geographic sites and types of treatment settings meant that information on managed care procedures could only be used descriptively, not analytically.

A detailed plan addressed data quality issues. We used established instruments or extensively documented new instruments (e.g., Stewart and Ware 1992). We avoided using proprietary data sets because of noncom-

parability across sites. At the same time, however, this approach limited our ability to conduct detailed cost analyses. Nevertheless, we explicitly asked about out-of-plan use for mental health care in the longitudinal component of the study, and attempted to be comprehensive in identifying use of specific clinical services of interest (inpatient, outpatient, electroconvulsive therapy, psychotropic medications, mental health specialty and general medical sector, counseling, and so forth).

Confidentiality emerged as an extremely important issue in the early phases of the study. Some provider groups were concerned about confidentiality of results at the health care system level, and some individual providers were concerned about losing clients if adverse outcomes were reported. Psychiatrists, especially psychoanalysts, did not want to see the psychotherapeutic process altered by participation in a study. We addressed these issues through structuring a multiple-site, consortium-type study and through setting up rigorous human subject procedures, including written, informed consent and anonymous coding of data. We referred to sites by letters rather than names, and offered confidential results to individual systems of care. Study investigators personally discussed the implications of participation with at least a third of the providers and with many patients. Specialty societies played a major role in reviewing procedures, suggesting alterations, and offering to talk with potential participants; and society members were key to convincing the mental health professionals to participate. Survey staff provided participating clinicians with detailed orientation to the study. Under those conditions, most provider groups felt that participation was important to increase their knowledge about the processes and outcomes of care.

Turnover at all levels in supportive key personnel of the participating organizations required us to make new contacts with the organizations. The importance of these new contacts was diminished by our reliance on patient data to complete the evaluation. Because we were not conducting an internal evaluation, the need for rapid results came from the research or policy community, not the participating group practices or individual providers or patients.

We determined early in the study that a randomized design for allocating different forms of payment was not feasible, largely because it would interfere with established provider relations and the participation of patients in their health care system of choice. However, because the MOS is an early example of this sort of policy evaluation, we tried to turn this limitation into a strength by concentrating on describing pro-

cesses and outcomes of care as they naturally occurred in these systems, leaving more focused questions to be addressed in future, more rigorously designed studies.

One change in the structure of practice illustrates how a change can be turned to an advantage. In the late 1980s managed care was rapidly growing, especially among IPAs. We did not anticipate such a large representation (15 percent) of prepaid care in the solo practice sector, but we took advantage of this growth to comment in the analyses on care under IPAs (solo and multispecialty mixed payment practices combined).

In this study, independent evaluator status was maintained because the study originated outside of the health care systems being examined and its funding was not generated from these health care systems (except for the initial screening services and the time clinicians spent talking with study staff and patients and completing forms). Although the costs of this time (for clinicians) were considerable and real, they were similar across all compared groups and were not linked to the outcome of the evaluation. However, major papers and reports were routinely circulated to the participating provider groups and specialty societies for comment before publication.

Table 2 and figure 1 illustrate the kinds of evaluation data available from such a study. Depressed patients at baseline had current depressive

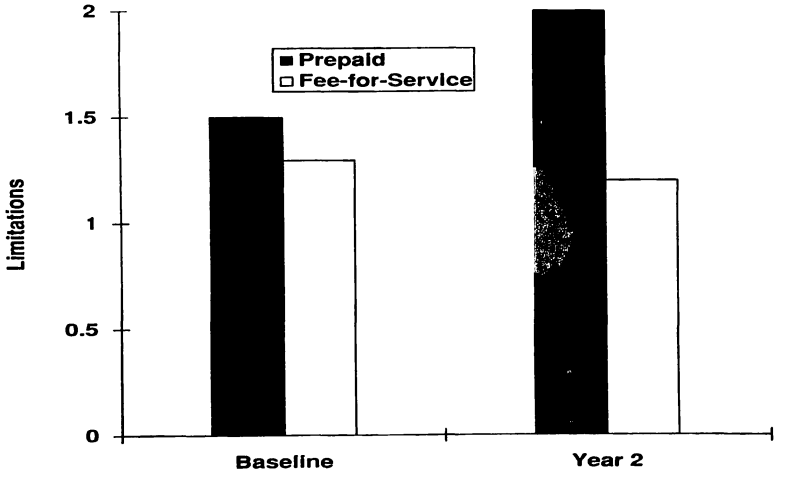

FIG. 1. Change in functional limitations for depressed prepaid and fee-for-service patients of psychiatrists. (Reprinted with permission from Rogers et al. [1993].)

TABLE 2
Percentage of Depressed Patients Needing Help and Receiving Treatment at Baseline

	Psychiatrist		Psychologist/ therapist		General medical clinician		Total	
Treatment	PP	FFS	PP	FFS	PP	FFS	PP	FFS
Patient reported								
Needing help for depression	92	98	96	79	81	78	87	84
Among those needing help, not receiving help	7	6	21	16	48	57	34	33
Any use of antidepressant medications[a]								
Baseline	72	42**	12	14	20	20	25	25
Two-year follow-up	41	51	7	13	13	18	15	27*
Mental health specialty visit								
In prior six months	90	93	81	95*	42	27*	59	58
Among such users, received psychotherapy	92	100	96	100	86	77	91	93
Treatment by treating provider, screening visit								
Talked three minutes or more about depression	100	98	98	98	35	51*	59	74*
Referred to mental health specialist	NA[b]	NA	NA	NA	10	5	NA	NA

[a] Patient used an antidepressant during the prior month or for four weeks or more in the prior six months
[b] NA, not applicable (applies only to patients of general medical providers); for comparison of prepaid and fee-for-service with a provider group, * = $p < .05$; ** = $p < .01$.
Source: Adapted from Rogers et al. (1993), with permission from the American Medical Association.

symptoms and a history of having at least three lifetime symptoms of depression, as independently assessed by the study team using the Diagnostic Interview Schedule. As shown in table 2, almost all patients, regardless of specialty, thought they needed help for depression, but among those who thought they needed help, about one-half in the general medical sector did not consider that they had received any, compared with only a small percentage of patients in the mental health specialty sector. Among general medical depressed patients, at least one-half had

not received personal counseling for depression, and those receiving prepaid care were especially unlikely to receive such personal counseling. There were no differences in counseling practices by payment among mental health specialty patients, but prepaid patients of psychiatrists experienced a rapid decline over time in the rate of use of antidepressant medication and FFS patients of psychiatrists did not. Figure 1 shows that, also among prepaid depressed patients of psychiatrists, an increase over time in the number of limitations in role and physical functioning was reported that did not occur among similar FFS patients. No differences emerged in clinical or functioning outcomes by payment among patients of general medical clinicians, patients of psychologists or other nonphysician therapists, or those grouped across all specialties.

These results demonstrate that an external evaluation may generate different kinds of data than an internal one. Each type of evaluation partly reflects its own goals, and each affords a different type of view of managed care procedures. The external evaluation can often employ a more rigorous design and obtain more clinically detailed data; the internal evaluation, on the other hand, has access to all the cost data of interest to the company.

Next Steps

As we face health care reform and more standardized arrangements of reimbursement and management, it is important to anticipate the likely effects of such reform; this is best done through empirically validated theory. Theory can enable us to predict the likely costs, quality, and outcomes of combined managed care elements for a particular population.

We have almost arrived at such a theory in some areas of mental health care financing, but we have not yet devised one for managed care in general. For example, increasing cost sharing in FFS plans lowers mental health outpatient costs, largely through lowering the probability of use (Keeler, Manning, and Wells 1988); a well-established group-practice-style HMO lowers mental health outpatient costs relative to similar FFS care, but it does so by constraining intensity of care per user rather than probability of use (Wells, Manning, and Benjamin 1986). These effects on use and costs could lead us to postulate that increased FFS cost sharing would most adversely affect persons with limited access

to care or those who most need care (i.e., the sick poor); the HMO, on the other hand, could most adversely affect persons needing extended or more intensive care.

Data from existing studies support these hypotheses. For example, in the Health Insurance Experiment, the mental health outcomes of low-income persons whose mental health was initially poor were worse under plans with cost sharing than under free care; their response was significantly different from others in the population (for whom outcomes were either similar or better under cost sharing) (Wells, Manning, and Valdez 1989). Two studies of prepaid care indicate that the most severely ill patients (persons with schizophrenia in the study by Lurie et al. [1992]; patients of psychiatrists in the study by Rogers et al. [1993]) had worse general functioning outcomes under prepaid than FFS care. Thus, the sick and poor do indeed appear to experience more adverse outcomes under cost-containment strategies. Does the same apply to managed care generally? To what forms? Costs and use patterns, but not outcomes, have been studied for some PPOs (Wells, Hosek, and Marquis 1992; Zwanziger and Auerbach 1991). The implementation of Medicare's PPS, however, did not appear to affect adversely quality or outcomes of care for depressed elderly patients hospitalized in acute care general medical hospitals, partly because the intensity of services was not reduced (Wells et al. 1993).

We need to build on these kinds of studies to examine the effects of utilization review, precertification, provider selection, "case management," and "clinical consultation," among other managed care activities, on quality of care and outcomes in mental health. While doing so, we will undoubtedly observe conflicting results, especially in the initial phases of less rigorously designed research, but we will be building an information base and theory that will more broadly inform the national policy and research agendas. As this occurs, it will be important to generate advance hypotheses and to test predictions developed from an emerging theoretical framework. These activities will be strengthened by following principles outlined here: enhancing proprietary data sets, combining the strengths of internal and external evaluation strategies, identifying and documenting high-quality data sets, and maintaining independent evaluator status. Most important, we must ask the right questions concerning the effects of managed care, based on knowledge of what it is and how its components are likely to affect patients.

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