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COMMENTARY: PROFESSIONAL PEER REVIEW IN A "COMPETITIVE" MEDICAL MARKET

Kathleen N. Lohr*

Introduction

IN THE OPENING to his article, Professor Havighurst notes the "serious confrontation" between medical professionalism, embodied in the concept of peer review, and competition in the medical marketplace. He thus launches us directly into a consideration of the economic and medical models of the organization and financing of medical care—and reminds us of the continuing tension between these two models. In commenting on his article, I would like to explore some of the elements of these two models further, as they may relate to the future of peer review and the quality of medical care.

In the body of his article, Professor Havighurst examines the proposition that peer review poses a fundamental threat to competition by "controlling" medical practice in contravention of market forces. That proposition might be posed as follows: By aiding and abetting anticompetitive, "collective" activities among practitioners or facilities, does peer review effectively jeopardize competition and thus merit attack on antitrust grounds?

In his analysis, he emphasizes that the crucial antitrust issue is not whether a given competitor is harmed by such activities, but rather whether competition is harmed or constrained. So, one may inquire as to which collective professional activities undertaken in the name of quality would improve the market, and which would not.

Following this line of thinking, what matters is the consumer's (in this context, the patient's) interests; the patient's welfare is at

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stake, not that of the competitor or provider. Within that framework, then, Professor Havighurst persuasively argues that professional peer review can be defended precisely because of its contributions to promoting competition. When peer review is conducted with due attention to certain proprieties and procedures, it serves one major purpose in fostering competition—namely, the provision of information.

I. Provision Of Information

Having "perfect information" is, of course, one of the major assumptions of an introductory model of competition. Naturally, we do not expect that professional peer review, no matter how well organized and conducted, will yield *perfect* information about the quality of medical care provided. Despite its growth and refinement over the years, the field of quality-of-care assessment and quality assurance is too poorly developed to produce perfect results. However, this requirement that information be perfect can be relaxed greatly without violating the underlying principle. Nevertheless, two questions that should be explored further concern the targets of information. To whom is peer review information *now* provided? To whom *should* it be provided?

The second assumption about standardized products is considered later in this Commentary, as it pertains to the role of professional peer review in assessing outcomes of care.

The third and fourth assumptions—large numbers of buyers and sellers and free entry of competition—are not directly dealt with here. The fact of large numbers of *independent* actors (i.e., purchasers) in the medical marketplace is explicitly assumed to be less and less likely over time. Finally, the fourth point appears to be rather less pertinent to professional peer review, because it is difficult to understand how peer review as presently practiced could operate with respect to a potential competitor who has not yet entered the market.

^{1.} The assumptions about the functioning of a market economy include notions of perfect information, homogeneous products, large numbers of buyers and sellers (in this case patients and providers), and free entry of competitors into the marketplace. See, e.g., L. REYNOLDS, ECONOMICS: A GENERAL INTRODUCTION, 24-25 (4th ed. 1973). A corollary to the assumption of full information is that consumers can and do learn instantaneously (or at least quickly) and at low cost the important attributes of the product that they are contemplating purchasing. This aspect of perfect information is especially untenable in the medical field, insofar as patients in need of services can learn neither quickly nor at low cost (or low risk) about the quality of the care they must obtain at the time that they need it. Thus, peer review organizations are appreciably better placed to judge quality of care across a variety of providers and to make that information known to purchasers before they need it than are individual patients. See Weisbrod, Competition in Health Care: A Cautionary View, in MARKET REFORMS IN HEALTH CARE: CURRENT ISSUES, NEW DIRECTIONS, STRATEGIC DECISIONS (J. Meyer ed. 1983) (discussing some of the aspects of the "perfect information" assumptions of the standard competitive model).

^{2.} See L. REYNOLDS, supra note 1, at 50 (concluding that the model is still used even when consumers do not have full information).

Traditionally, the ultimate goal of quality assurance activities, of which professional peer review is of course a part, has been to improve the practice of doctors.³ In the past, this goal has been pursued mainly through one of four basic modes (or combinations thereof).

The first mode is embedded in educational activities, which might include grand rounds conducted within hospitals or specialty-board requirements for continuing medical education credits. The second mode is exemplified by medical record audits or other activities (such as analysis of insurance claims data) with feedback to local providers. One example of this is the approach pioneered and refined by John Wennberg and others, resulting from their small-area analyses of geographic variations in use of services.

A third approach to traditional quality assurance activities is to apply restrictions or institute "standard operating procedures," such as reminders to physicians based on various clinical algorithms

The history of federal involvement in peer review has been traced by K. LOHR & R. BROOK, *supra*, at 4-8. More recently, Lohr has reviewed the implementation of the Utilization and Quality Review Peer Review Organization (PRO) program and has identified the advantages and limitations of PROs in monitoring and improving quality of care for the elderly. K. LOHR, PEER REVIEW ORGANIZATIONS: QUALITY ASSURANCE IN MEDICARE (1985).

Dans, Weiner & Otter, Peer Review Organizations: Promises and Pitfalls, 313 New Eng. J. Med. 1131 (1985), reviewed the probable accomplishments of, and problems facing, PROs in pursuing their first-year quality objectives and concluded that they (like the predecessor Professional Standards Review Organizations, or PSROs) would still likely be seen as cost-containment agents rather than as guarantors of quality of care. Id. at 1136. See also Office of Technology Assessment, Medicare's Prospective Payment System: Strate-Gies for Evaluating Cost, Quality, and Medical Technology 63-73 & App. G (1985) (pages 63-73 treat Medicare's Prospective Payment System (PPS) in terms of its impact on costs; Appendix G treats the impact of PROs on quality of care in relation to PPS).

^{3.} Quality assurance can and should be distinguished from quality-of-care assessment. Quality assurance can be defined as "a formal and systematic exercise in identifying problems in medical care delivery, designing activities to overcome the problems, and carrying out follow-up monitoring to ensure that no new problems have been introduced and that corrective steps have been effective." K. LOHR & R. BROOK, QUALITY ASSURANCE IN MEDICINE: EXPERIENCE IN THE PUBLIC SECTOR 2 (1984). The seminal work on quality-of-care measurement has been done by A. Donabedian. EXPLORATIONS IN QUALITY ASSESSMENT AND MONITORING. VOLS. I, II, & III (1978, 1980, 1984). Brook & Lohr, Efficacy, Effectiveness, Variations, and Quality: Boundary-Crossing Research, 23 MED. CARE 710 (1985), provides citations to the major empirical and theoretical works of other experts in the field, in the course of discussing the need for a macro model of quality-assessment research that combines investigations into efficacy of medical practices (in "ideal" settings), effectiveness (in "average" settings), per-person variations in use of services and health outcomes, and quality of care. Komaroff, Quality Assurance in 1984, 23 MED. CARE 723 (1985) discusses several general areas of needed research, including the effectiveness of quality assurance interventions, the feasibility of multi-institutional databanks, the improvement of the nature and use of automated information systems (e.g., for physician feedback), and the education of patients.

concerning appropriate preventive, diagnostic, or therapeutic practices. A fourth dimension involves the imposition of sanctions. In a simple application, this involves not reimbursing providers for services rendered that are deemed medically unnecessary or inappropriate; an extreme form of this practice, adopted in the current federal peer review program, is to bar specific providers from further participation in Medicare or Medicaid.

Much of this type of activity is directed at problems of overuse of services—a problem that will decrease in importance as cost-containment efforts continue to ratchet down health care expenditures. All of the above also implies that information is being provided to one of two parties: the practitioner (or his or her institution) or the government. Conspicuously absent is the patient or the consumer.

If professional peer review is going to serve a useful purpose in a competitive medical marketplace, it will need to broaden its focus from the closed circle of practitioners to include potential or actual patients. Patients and consumers—that is, purchasers—will come to know, indeed are already demanding to know, more about alternative medical systems and providers. Peer review systems should find innovative ways to make reliable and unbiased information available to them.

One possible approach is to involve the consumer directly in the activities of peer review associations. An example of this is the program now underway between the American Association of Retired Persons (AARP) and the Medicare Peer Review Organizations (PROs). The cooperation between these particular groups is not surprising, since the best known peer review organizations are now those associated (in the public's mind) with the Medicare program. In a dozen states, an AARP member or other consumer representative sits on the PRO governing boards or acts in an advisory capacity, often participating in a variety of sensitive areas, including decisions about provider sanctions.⁴

Additional efforts associated with the AARP program involve regional workshops and outreach projects designed to help PROs

^{4.} Personal communication with Alan Kaplan (March 21, 1986). In nine PROs, a consumer representative is a member of the PRO governing board; in three, the representative acts in simply an advisory capacity. Board members attend regular meetings, sit on one or more committees, and bring issues (such as problems with premature discharge or admissions to skilled nursing facilities) to the attention of the Board. In most cases, these lay members are sponsored by the American Association of Retired Persons (AARP); but in all cases, the AARP offers them an opportunity to be affiliated with an expanding network of volunteers, to acquire printed materials that will be useful in their PRO work, and to attend briefings, training sessions, and conferences.

and patient advocacy groups find ways to provide unbiased information and assistance to the elderly. These have become especially salient because the "scope of work" clause for the second two-year contract period for PROs includes a specific requirement for consumer outreach activities.⁵

A second possible way for peer review entities to improve information dissemination to consumers might be placed under the rubric of the "independent quality assurance broker." In this guise, peer review associations of the future would be less responsible than at present for day-to-day quality assessment activities. Rather, they might assume a quality "auditor" role, assessing the level of quality of care of various competing providers on behalf of large purchasers or patient groups. In the case of large purchasers of health services (such as self-insured corporations), the private review activities of PROs might already serve as a prototype for this "auditor" or "broker" role.

This latter approach has not really been tried in the quality-ofcare arena, certainly not by PROs or their predecessor groups (Professional Standards Review Organizations, or PSROs). Early efforts in this area, often pioneered by business coalitions, have usually concentrated first on costs and efficiency of care, not on quality.⁶ However, some public agencies and private sector groups

^{5.} Specifically, the final PRO Scope of Work, published by the Health Care Financing Administration (HCFA) in January of 1986, requires the contractor to conduct programs to inform Medicare beneficiaries about Medicare PRO review. Such programs are to educate beneficiaries about types of PRO review and about their rights (in particular, about their rights should a hospital attempt to discharge a patient when the average length of stay for that patient's DRG has been reached). HCFA permits the PROs to implement a variety of outreach activities, including hotlines, seminars, and informational brochures. In addition, it allows (but does not require) the PROs to include a beneficiary representative on its governing board. Because of this provision, AARP representatives expect the AARP-PRO program described above to expand considerably during the second contract period.

^{6.} See S. MARQUIS, D. KANOUSE & L. BRODSLEY, INFORMING CONSUMERS ABOUT HEALTH CARE COSTS (1985). This work reviews many of the programs emerging in the mid-1980's to provide consumers with information, encouraging them to shop for cost-effective health care. It notes that, in the private sector, many employers have modified their insurance plans to provide employees with financial incentives to shop for low-cost providers and have combined these incentives with programs to disseminate comparative price information so that employees can identify the cost-effective providers. The Health Care Financing Administration has supported a number of projects in this area; some adopt the "independent broker model," which attempts to provide full, objective information to Medicaid beneficiaries considering enrollment in prepaid health plans. The California Prepaid Health Research, Evaluation and Demonstration (PHRED) Project pioneered this approach. Another such project, "Health Choice" of Portland, Oregon, specializes in brokering options for prepaid health care services to Medicare beneficiaries and small business employers in Oregon and to Medicaid recipients in California and Oregon. As another example, in 1984, a coalition of nearly 200 corporations, insurance companies, trade associations, and health care

are moving in the direction of making quality-related information more readily available to the consumer.

For instance, the health planning council in Orange County, California, has developed a handbook that rates hospitals on a number of dimensions related to quality of care ("indicators of quality," abbreviated to "hospital's IQ"). Among the indicators examined are hospital staff and services, organizational and management structures, existence of supplementary services, quality assurance systems, and patient outcomes (as reflected by nosocomial infection rates and mortality rates). Although intended for use by local insurers and purchasers of health care, it has become well known to, and popular with, individual consumers and patients in that area of southern California.

In a different vein, a consumer advocacy group in the Washington, D.C., area, the United Seniors Consumer Cooperative (the Cooperative), has developed ambitious plans for disseminating information to elderly Medicare beneficiaries about their various health maintenance organization (HMO) options in that metropolitan area. Future goals include the possibility of providing quality-related information to their membership as part of this "independent broker" service. In the meantime, the Cooperative has formal arrangements with several local hospitals to improve certain aspects of hospital care, such as discharge planning and post-discharge follow-up.

All of these programs exemplify ways that the peer review organization of the future might try to make quality-related information accessible to the general public. One important issue, however, should not be overlooked: the reliability and validity of the information provided. More harm than good can be done by the disclosure of information that has not been thoroughly evaluated against

providers in the Washington metropolitan area began a project to define hospital-by-hospital variations in care for certain conditions and to make such information sufficiently accessible so that employers could shop around for the most efficient providers. See Colburn, Health Business: Shopping for Hospital Care, The Washington Post, Nov. 14, 1984, at D7, col. 1; Aquilina & Johnson, Prudent Purchasing: Price Disclosure Attracts Interest, But Hospitals May Face Pressure, Too, Mod. Healthcare, Nov. 1, 1984, at 160 (describing several efforts by business coalitions and state governments to develop sources of information about costs and utilization that can be used to inform employees or purchasers, identify cost-effective providers, evaluate preferred provider organizations, and the like).

^{7.} See F. BODENDORF & F. MACKEY, A HOSPITAL'S IQ: INDICATORS OF QUALITY (1985) (for the Orange County Health Planning Council).

^{8.} Interview with J. Firman (March 21, 1986). See also Rovner, Healthtalk: The Elderly, Flexing Their Medical Muscle, The Washington Post, Mar. 12, 1986, at Health 8, col. 1.

appropriate scientific and clinical criteria. Peer review groups, with access to large federal and private computerized data bases, have nearly unparalleled opportunities to develop institution- or physician-specific measures of quality of care. From these, they could, *in theory*, develop so-called "nonintrusive" measures of quality of hospital care, such as indices of mortality or readmissions.

It is critical to the entire process, however, that such measures be demonstrated to be clinically valid. "Outcome" measures must be shown to be related, in medically plausible and consistent ways, to the actual quality of care delivered in those institutions or by those providers. They must, among other things, be convincingly free of bias or inconsistency owing to differences in patient severity of illness that are not otherwise adequately accounted for. ¹⁰ Premature identification of facilities that appear to have unusually high, or low, values on such measures, before the measures have been shown to be clinically defensible, could have quite counterproductive ef-

In the medical context, poor, incomplete, or misleading information could have quite harmful consequences. For instance, persons in potentially life-threatening emergencies might seek care at a distant hospital, passing by a closer hospital that had been inappropriately labeled poor, thereby losing valuable treatment time. Or, patients may demand new drugs or therapies that may not live up to advertised claims. It should be emphasized that these observations concerning the problems associated with poor information apply regardless of whether that information is generated by "official" sources or as advertising by providers. See Soffer, Medical News: Opportunities and Dangers, 244 J. A.M.A. 1481, 1481-82 (1986) (briefly discussing some of these points in considering the role of medical news and science writers in communicating to the medical community and laymen).

Furthermore, see Akerlof, The Market for "Lemons": Quality Uncertainty and the Market Mechanism, 84 Q. J. Econ. 489, 490-91 (1970), for a discussion of the problem of asymmetrical information, illustrated by the market for "lemons" in which a used car buyer does not know whether or not the car is of poor quality, but the seller does. This may in theory lead to a total breakdown of the market. "Experts" who provide some information about quality (e.g., to the buyer) may thus help to improve the functioning (or even ensure the existence) of a market. An extension of this reasoning to a medical market seems entirely defensible.

^{9.} This may appear to be an unacceptably rigorous requirement. In other presumably competitive markets (automobiles, for instance, or even toothpaste), advertising is considered a key mechanism for providing information to consumers. Such advertising can and often does involve questionably relevant information with little real scientific validity. This phenomenon is not seen as a sufficient market failure to justify large-scale efforts to provide "clinically valid" information from an objective source. However, the existence of publications, such as Consumer Reports or Consumer's Checkbook (e.g., for Washington, D.C., or the San Francisco Bay area), suggests that there is a market for such independent information. The "Checkbooks" do rate physicians, health maintenance organizations, opticians and optometrists, and hospitals, in addition to more traditional consumer items or services.

^{10.} The Rand Corporation, with support from the Health Care Financing Administration, is currently conducting a study to determine the clinical validity of such insurance-claims-based, nonintrusive patient outcome measures for indicating the level of quality of inpatient care.

fects. Disclosure of improperly assembled or interpreted information could be prejudicial not only to the facilities involved and their potential patients but also to the appropriate workings of a competitive market.

Peer review entities, therefore, have a considerable responsibility to ensure that the information they make available is accurate and appropriate to the needs of the patient or medical-care purchaser. It might also be noted that at least some of these enterprises at present have considerable potential for contributing to the research efforts that will eventually provide adequate and appropriate indicators of quality.

II. Homogeneous Products

The previous section briefly discussed some implications of one major assumption about competition—perfect information. This section takes up a second tenet of the simple competitive model—namely, that products be equivalent or homogeneous. In the purest formulation, identical products compete on the basis of price. As with "perfect information," we must relax this principle as applied to the medical marketplace. There is absolutely no way to define how the "product" of health care, such as short-term outcomes of hospitalization, should be standardized across all patients, although some might argue that we could standardize across groups of patients.

For one thing, no one can say with certainty what the outcome of medical care in a given patient for a specific complaint or illness ought to be. For another, patients will differ in what they value as the ultimate outcomes of their care. Hence, in considering the tensions between the economic and medical models as they relate to peer review, we cannot impose any condition of completely homogeneous products in the medical marketplace.

But neither should we totally relinquish the notion that more or less "like" patients should have more or less "like" outcomes of care for a given problem or complaint. If we believe in this proposition, then marked variations in medical care use for persons or communities, who to all outward appearances are "alike," would not seem to be a desirable or defensible phenomenon.

Better than a decade of research has documented that variations in the per-person use of medical services are large and pervasive throughout this country.¹¹ For instance, per-capita use of some sur-

^{11.} The literature on small-area analysis and geographic variations in the per-capita use

gical and medical procedures varies two-, three-, even twelve-fold across major geographic areas of the country. Per-person variations in the rates of hospital admissions can vary about as much. This degree of per-person variation can be shown to occur across large geographic areas and across rather small ones: among counties or between cities within a single state, for instance, or among hospital market areas within a single county. These variations are not satisfactorily explained by population characteristics (such as age, sex, income, underlying health status or need), or by insurance coverage, or by the amount or nature of regional or local medical resources.

High rates of variation in per-person use of medical services mirror considerable uncertainty about the appropriateness or efficacy of a given procedure for a given patient. Low variation rates may reflect a fairly high degree of consensus regarding the effectiveness of a given diagnostic or therapeutic intervention. However, the very lowest variation rates can also represent an appreciable failure to provide needed services, and the highest rates may be evidence that some services of, at best, marginal effectiveness are being overused.¹²

of services is rapidly growing. For citations to the classic works, see K. LOHR, W. LOHR & R. BROOK, GEOGRAPHIC VARIATIONS IN THE USE OF MEDICAL SERVICES AND SURGICAL PROCEDURES (1985); Eisenberg, *Physician Utilization: The State of Research about Physicians' Practice Patterns*, 23 Med. Care 461-71 (1985); and 3 Health Aff., Summer 1984 (an entire issue devoted to the subject).

Variation has been studied on an international scale. In the mid-1970's, the hysterectomy rates per 100,000 population were 220 for England and Wales, 570 for Canada, and 660 for the United States; the prostatectomy rates were, respectively, 105, 230, and 260. See Mc-Pherson, Strong, Epstein & Jones, Regional Variations in the Use of Common Surgical Procedures: Within and Between England and Wales, Canada, and the United States of America, 15A SOCIAL SCI. & MED. 273 (1981).

Across major regions of the United States, hospital discharges per 1000 population in 1982 totalled 143 in the West, 159 in the Northeast, 174 in the South, and 186 in the North Central regions. NATIONAL CENTER FOR HEALTH STATISTICS, UTILIZATION OF SHORT-STAY HOSPITALS, UNITED STATES, 1982 ANNUAL SUMMARY 3 (1984).

Finally, the following illustrates small-area variation. Across 21 Maine hospital market areas, admissions per 10,000 population varied "moderately" (about 2.5-fold) for acute myocardial infarction, cerebrovascular disorders, and angina pectoris; variation was "very high" (up to 8.5-fold) for miscellaneous gastrointestinal disorders and chronic lung disease; and "very, very high" (12-fold) for atherosclerosis. See Wennberg, McPherson & Caper, Will Payment Based on Diagnosis-Related Groups Control Hospital Costs?, 311 New Eng. J. Med. 295 (1984).

12. Discomfort with very high rates of unexplained per-capita variations in the use of services does not justify the conclusion that no variation would be preferable. Neither does it mean that we should attempt to define a single acceptable rate. The assumptions here are that the extremes are probably not optimal and that a range of per-person rates of use appropriately accommodates differing values and preferences of well-informed consumers. To the

If high variation rates indicate great uncertainty about the appropriate course of medical intervention, then we might postulate that the quality of care—including the patient's expected outcomes—might vary markedly (even excessively) as well.¹³ This would seem to violate the proposition offered above that more or less "like" patients ought to be able to expect more or less "like" outcomes.

Statewide peer review organizations have considerable potential for investigating variations in the use of medical services, at least of Medicare and Medicaid populations.¹⁴ So, for that matter, do subsidiary organizations, such as the private review arms of federal PROs, which serve health insurance carriers, employers, or other major clients within relatively small geographic areas. What might ensue from such investigations?

One important product of such peer review activities would be documentation of the substantial range of "unexplained" variation in the use of specific services. This activity in turn could serve as a

extent that reducing uncertainty narrows the range of variation rates and strengthens the middle, it should contribute to the efficient functioning of the medical market.

13. See Chassin, Brook, Park, Kessey, Fink, Kosecoft, Kahn, Merrick & Solomon, Variations in the Use of Medical and Surgical Services by the Medicare Population, 314 NEW ENG.

J. Med. 285 (1986). The article reports large and significant differences in the use of many surgical and nonsurgical procedures by the Medicare populations of 13 sites around the country. The differences (many higher than three-fold between the highest and lowest sites) could not be explained by demographic characteristics of the population or by the actions of a small number of physicians. Id. at 285, 287-89. The authors emphasize "that the differences are too large to ignore and that unless they are understood at a clinical level, uninformed policy decisions that have adverse effects on the health of the elderly may be made." Id. at 285.

The "serious confrontation" between the medical and economic models (i.e., professionalism vs. competition as conceived by Professor Havighurst) was neatly summarized by a representative of organized medicine. Boyle, Regional Variations in the Use of Medical Services and the Accountability of the Profession, 254 J. A.M.A. 407 (1985) (editorial). Dr. Boyle noted that although some variabilities in practice patterns help ensure an individualized approach to patient care and can be explained by differences in resources or patient needs and preferences, some "unquestionably represent inappropriate medical care." Id. He goes on to argue that quality of care is threatened when the government, insurance companies, and business coalitions promote aggressive cost containment through citing the standard assumption that variation represents excess use. He concludes that "individual professional judgment will be mortally wounded unless we in the profession provide effective leadership." Id. One avenue through which the leadership called for by Dr. Boyle might be realized is increased (and more visible) support of and participation in peer review association activities.

14. Several Medicare PROs have already initiated various projects in small-area analysis of per-person use of services, including PROs in Iowa, Indiana, and Arizona. The data have been used to educate medical societies and to establish required admission objectives for the second two-year PRO contract period. For a description of the application of population-based small-area analysis, see Wennberg, *Dealing with Medical Practice Variations: A Proposal for Action*, 3 HEALTH AFF., Summer 1984, at 6-31, although the piece emphasizes concerns with cost containment and over-provision of services.

guide in considering whether such variation means overly heterogeneous products (i.e., outcomes of care) and, if so, what might be done about it. Because peer review is a professional activity, a second important result would be reduction of physician uncertainty concerning the likely level of benefits to be expected from providing certain services.

What directions might peer review efforts take, regarding outcomes of care, that might ultimately improve the functioning of a competitive market? One possibility is for such organizations to participate in efforts to develop a better understanding of the clinical linkages between the reasons (or "indications") for use of a service or procedure and its eventual outcomes. In this vein, better information is needed to clarify the efficacy of tests, procedures, or medications when used in "ideal" circumstances; the effectiveness of those same services or treatments in "average" settings; and the expected outcomes for patients with specific indications for use of those services or treatments. This information may be especially important when there are "competing" services to be considered, such as whether a medical or surgical intervention would be more appropriate for a given illness or which between hospital or home would be the more suitable locale for post-treatment recuperation.

Peer review organizations should be intimately concerned with the question of per-person variations in the use of services—and the presumed variations in patient outcomes—within their geographical areas. Our confidence in the "medical model" depends in part on our confidence that we are getting not only "our money's worth" but also services appropriate to our human medical needs. Ironically, given the tensions between the medical and economic models, maintaining that confidence may depend in part on "making the product more homogeneous"—that is, reducing the unexplainable and unacceptable degree of variation in use of services and outcomes of care. It should be clear that success in this endeavor serves to improve the functioning of the economic model as well as the medical model.

III. COMPETITION AND THE FUTURE ROLE OF PEER REVIEW ORGANIZATIONS

The final section of this Commentary looks to the future. It asks: What might current trends in reimbursement and organization of medical care—predicated on a continued emphasis on competition—herald for professional peer review?

The nation seems unlikely to return to the "halcyon" days of cost-based reimbursement for hospital care. Undoubtedly the move to payment on the basis of prospectively set prices (even if the actual payments are retrospective) will continue in the short run in the inpatient setting, even in the face of known drawbacks to the diagnosis-related group (DRG) classification system. ¹⁵ Such prospective payment schemes might even be extended to the ambulatory and long-term-care settings, although the limitations and complexities of DRG-based payment schemes as applied to these other settings makes that eventuality problematic. ¹⁶ In the longer run, the majority of certain programs, such as Medicare, will probably be financed on a capitation basis. ¹⁷ Further, just as the federal and state governments have moved from "prospective" payment to capitation for Medicare and Medicaid, ¹⁸ so might Blue Cross/Blue

^{15.} Criticisms of the current diagnosis-related group (DRG) basis for reimbursement are rampant. Many relate to the problem that DRGs do not sufficiently take cognizance of differences in patient severity of illness. The literature on severity-of-illness issues is extensive. See generally Health Care Financing Administration Office of Research and Demonstrations, U.S. Department of Health and Human Services, Health Care Financing Review (1984 Annual Supplement).

Other criticisms stem from the perception that DRGs do not contain adequately homogeneous case designations. Some experts claim that this arises from flaws in the coding system on which DRGs are based (the International Classification of Diseases, version 9, clinical modification, commonly known as ICD-9-CM), which allows equivalent patients to be classified into one of several different DRGs (presumably the most remunerative). See, e.g., Iezzoni & Moskowitz, Clinical Overlap Among Medical Diagnosis-Related Groups, 255 J. A.M.A. 927 (1986). This last problem may have less to do with the ICD-9-CM system per se than with the extent of physician or medical recordkeeping error with respect to the correct principal diagnosis, since it is that diagnosis on which DRG classification is based. For two reports about this aspect of data quality, see Cohen, Bernier, Tam, Schimel, Postel, Scherdt & Stamm, Data Quality and DRGs: An Assessment of the Reliability of Federal Beneficiary Discharge Data in Selected Manhattan Hospitals, 10 J. COMMUNITY HEALTH 238 (1985); and Lloyd & Rissing, Physician and Coding Errors in Patient Records, 254 J. A.M.A. 1330 (1985).

See, e.g., Mitchell, Physician DRGs, 313 New Eng. J. Med. 670 (1985) (discussing some of the issues concerning the extension of the DRG system to payment for physicians' services).

^{17.} See, e.g., Thurow, Medicine versus Economics, 313 New Eng. J. Med. 611, 612 (1985). Thurow predicts that in the future, payors will reimburse providers on the basis of fixed fees for groups of potential patients, that corporations (and the middle class) will take the lead, and that government (and the poor and elderly) will follow. He envisions a three-tiered system, with government and private corporations underwriting per-capita payment systems for the poor or elderly and employees (respectively), and a third tier in which people can purchase additional health care in a free-market setting. Id. at 613.

The shift to capitated systems may be less direct or smooth than implied herein. One reason is that capitation payment schemes can be seriously undermined when substantial differences in patient severity of illness exist and are not sufficiently taken into account. It may not be any easier to control for severity-of-illness variations in a capitated environment than it has been in the DRG-based prospective payment environment. See supra note 15.

^{18.} Medicare's experience with TEFRA (Tax Equity and Fiscal Responsibility Act of

Shield and other commercial insurance carriers shift toward capitation. Moreover, employers and corporations may begin to move beyond simply accepting risk when self-insuring. They may choose instead to set up HMOs, develop other per-capita arrangements involving preferred provider organizations, or contract with primary care networks.

In short, the nation may in coming years experience an appreciable expansion in the willingness of large public or private sector entities to become aggressive purchasers of medical resources on behalf of their beneficiaries or enrollees. Furthermore, rather than continue to rely on increasingly complicated case-mix- or severity-of-illness-adjusted DRG-based reimbursement schemes, such purchasers may understandably prefer to emphasize per-capita, truly prospective payment mechanisms. Over the years, however, the number of such independent, cost-conscious purchasers of health care services may shrink, even as their average size rises.

During this period, the nation may experience considerable changes in utilization patterns. By now the drop in hospital admissions and bed-days is a widely acknowledged phenomenon.¹⁹ A variety of factors, such as heightened demand for obtaining certain services in ambulatory settings as opposed to hospitalization, will foster a continued decrease in inpatient care. This will surely lead to excess capacity of hospitals (or hospital beds), with heightened competition among hospitals for patients and, eventually, hospital closures. Hospitals will scramble to compete for patients, especially

1982) health maintenance organizations, which are reimbursed on a per-enrollee basis, will be an important indicator of the future of capitation in Medicare. Another possibility is to let Medicare fiscal intermediaries and insurance carriers (e.g., the statewide Blue Cross and Blue Shield associations) participate in capitated payment schemes, under which they would be "at risk" if outlays exceed per-person payments. The Arizona Health Care Cost Containment System, which delivers care to indigents, uses a statewide competitive bidding process and prepaid capitated financing. Its success or failure will provide evidence of the feasibility and desirability of capitated plans in Medicaid. The Program for Prepaid Managed Health Care, sponsored by the Robert Wood Johnson Foundation, the National Governors' Association, and the Health Care Financing Administration (and which is currently being evaluated by The Rand Corporation), delivers care to Medicaid eligibles and will also provide evidence of the impacts of a capitated system on use and quality of care. Various strategies for using market forces to control health care costs are discussed by Ginsburg, Market-Oriented Options in Medicare and Medicaid, in Market Reforms in Health Care: Current Issues, New Directions, Strategic Decisions 103-18 (J. Meyer ed. 1983).

19. See, e.g., PROSPECTIVE PAYMENT ASSESSMENT COMMISSION, MEDICARE PROSPECTIVE PAYMENT AND THE AMERICAN HEALTH CARE SYSTEM: REPORT TO THE CONGRESS 20 (1986). For details on changes in Medicare admission rates, see Beebe, Lawrence & Lintzeris, Health Care Financing Trends: Medicare Admissions and Length of Stay for Short-Stay Hospitals, 7 HEALTH CARE FIN. REV., Fall 1985, at 117-19.

for selected (relatively lucrative) portions of the health care market, and they will do so facing larger and more aggressive purchasers than ever before.

One outgrowth of these changes may be a considerable move toward "networks" or other larger entities with which physicians and hospitals will align themselves. To be competitive, these networks—independent practice associations, preferred provider organizations, even prepaid group practices—will have to institute strict utilization and peer review to guard against overuse of services on the one hand and deterioration in the quality of care on the other. The greater the pressures to compete for the business of large health care purchasers, the more important, from the patient's or consumer's point of view, becomes the emphasis on quality of care.

Put another way, very considerable incentives for intensive, internal utilization review reside with the provider networks; presumably, organized peer review entities will not have much role in this activity in the future. Conversely, very considerable incentives for close monitoring of quality of care reside with patients and purchasers, as they worry both about what they are getting for their money and about possible threats that underprovision of services poses for quality of care and patient outcomes. This means that the business of peer review, both public and private, will become more and more concerned with quality of care.

That organized peer review entities might expand their quality of care activities on behalf of the government, self-insurers, commercial insurance carriers, corporations, employee groups and unions, and patient representative groups can and should be seen as contributing to the viable working of a competitive market. This would be true, however, only when the expansion serves the two dimensions to competition mentioned earlier: first, providing reliable and valid information to the consumer as well as to the practitioner, and, second, bringing to the public's attention instances when variations in both use of services and patient outcomes are larger than can be satisfactorily explained or tolerated.

Thus, the future of peer review organizations in a competitive health services environment may lie in the following types of activities: first, being "independent brokers" in assessing the level of quality of care of competing provider networks on behalf of large purchasers, and, second, acting on behalf of patient and consumer groups to help them protect the health of their members. In these ways, peer review organizations can serve the highest ideals of med-

ical professionalism and ease the potential for destructive confrontation between the economic and medical models of health care.