
Chapter 2

Disseminating Information to Consumers: Present Context and Future Strategy

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Disseminating Information to Consumers: Present Context and Future Strategy

INTRODUCTION

For advice about sources of health care, Americans have traditionally relied on family or friends and on physicians. Today, most people still depend mainly on recommendations from their immediate circle of acquaintances for assistance in reaching decisions about health care providers (204,255,369,599,719) and consult with physicians for referrals to other physicians and hospitals. As changes in the medical marketplace and medical technology have increased consumers' choices and the financial importance of these choices, an issue that has come to the fore is the need for lay people to have information about the quality of care delivered by physicians or hospitals. Some observers would deny the need for such information on the grounds that the average individual lacks the ability either to make health care decisions in general or to assess the quality of physicians' and hospitals' care in particular. Consumer advocates and others who believe that better information is needed, however, do not phrase the question in terms of people's ability to judge; they simply point out that people are becoming more involved in decisions about their own health care and in making choices among providers (296).

If people are to make informed choices among providers on the basis of quality, they either must have understandable, accurate information about provider performance at hand or must be able to acquire such information easily. Until recently, information on the quality of care provided by hospitals, physicians, and other providers was not available to the public or, for that matter, to health professionals. Although quality-of-care information is increasingly being generated for public use by government agencies, consumer organizations, the popular press, and health care organizations, much of the information is unevaluated, not systematically produced and disseminated, expensive to acquire, or difficult for lay people to interpret.

The focus of this chapter is on a future strategy for effectively disseminating evaluated information to the public on the quality of physicians' and hospitals' care. As background, the discussion considers the audience for information on the quality of care and the present situation with respect to the availability of information for individual consumers.

THE AUDIENCE FOR INFORMATION ON THE QUALITY OF MEDICAL CARE

Almost all of the individuals and organizations involved in health care—employers, unions, health care providers, third-party payers, health benefit consultants, and individuals—could use accurate quality-of-care information to guide their purchase and provision of medical services. Employers increasingly are the “buyers of health care” for their employees (50), and farsighted employers are beginning to realize that quality is as important as cost in the design of benefits, purchase of care, selection of health plans, and payment ar-

rangements between employers, unions, and health care providers (256). At least one health benefit consultant has used indicators of quality in negotiations for establishing a hospital preferred provider organization (PPO) (322).

Many unions have historically been active users of health care information when negotiating health benefits for their members. The recent trend among employers to limit employee choices to certain health care providers by limiting employees'

choice of health care plans has accentuated union interest in information on quality of care. Unions, as well as employers, have little information on the quality of care provided by health maintenance organizations (HMOs), PPOs, and other types of managed care plans to which many of their members are limited (556). Validated information on the quality of medical providers in the fee-for-service sector is also scarce.

Some physicians and hospitals are ambivalent about the publication of quality-of-care information as currently constructed (41,427). Clearly, however, accurate information on the quality of hospitals and physicians could be used by physicians to select hospitals at which they will seek staff appointment; to select suitable hospitals for the admission and treatment for patients with specific medical problems, and to select hospitals or practitioners to whom to refer patients. Physicians, particularly primary care physicians, could also use information on quality to help patients choose hospitals and other practitioners. The complex nature of quality-of-care information often requires that physicians assist patients in interpreting the information's meaning.

Hospitals could use physician-specific quality-of-care information to select physicians for staff appointments and to grant admitting privileges to physicians. Hospitals could use hospital-specific and physician-specific quality-of-care information to monitor their own performance and to initiate and augment quality assurance activities and risk-management programs. Quality assurance and risk management are particularly important for hospitals in areas where providers are scarce and individuals have little choice.

Individuals and their families need quality-of-care information in order to make informed choices of physicians and hospitals. Individuals' choices are often limited. Employees' are often constrained in their choice of hospitals and physicians by the limited range of health plan options to which their employers and unions have agreed. If the only plan offered is an HMO, the employees are limited to hospitals and physicians that

participate in that HMO; because of financial considerations, they would be hesitant to choose providers outside of the HMO. Medicaid recipients in some States, including California, are limited to those providers participating in Medicaid. Furthermore, millions of Americans live in areas where only one hospital or one physician trained in a certain procedure is geographically accessible. Their choice of provider is limited by geographic location. Finally, an estimated 35 to 40 million Americans are without health insurance coverage and cannot pay for care (635). These individuals are often limited in their choice of hospitals to public hospitals (72), which provide a disproportionate amount of uncompensated care (606).

Although some Americans defer decisions about choice of hospitals to their physicians, the majority of them make decisions about hospitals either alone or in conjunction with a physician. A summary of recent research found that one-third of Americans select hospitals themselves; one-third decide together with their physician; and one-third have the physician choose the hospital for them (320). Most of the decisions about which physician will provide their health care are made by individuals and their families (314). The primary health care decisionmakers within families tend to be females: women choose physicians and hospitals that family members will use as much as two-thirds of the time (320,496).

Thus, individuals' decisions are very important in the actual selection of a specific physician or hospital. Although providers and organizational purchasers of health care also have informational needs, this chapter adopts the perspective of the individual consumer in discussing both the present situation and the elements of an effective strategy for disseminating information on quality. In reading the discussion that follows, however, one should keep in mind the fact that most individual consumers' choices occur in an environment that is partly restricted by physician referral and limitations imposed by employers, third-party payers, geographic location, and lack of health insurance.

THE PRESENT SITUATION: INDIVIDUAL CONSUMERS AND INFORMATION ON THE QUALITY OF CARE

The components of a strategy for disseminating information to the public on the quality of hospitals' and physicians' care should be considered in light of several factors: individual consumers' concerns about and knowledge of aspects of quality of care, individual consumers' interest in information about quality of care, places where consumers can find information on quality of care, and reasons consumers choose hospitals-and physicians.

Individual Consumers' Concerns About and Knowledge of Aspects of the Quality of Care

More than **80** percent of people in the United States have repeatedly reported that they are satisfied with the care they receive from hospitals and physicians (391,392). People's satisfaction may vary with their knowledge and rating of differences in quality. A national consumer survey found that most respondents (79.3 percent) knew that hospitals differ in their quality of care (314). Respondents with higher incomes and more education were more knowledgeable than others. Another survey reported that **69** percent of respondents deemed the quality of the health care they were receiving to be excellent or pretty good (391). People nationally expressed more dissatisfaction with the quality of care in emergency rooms and with the availability of health care on weekends and at night than with the quality of hospital care generally (390).

In rating physicians, Americans place a high value on a physician's knowledge and technical competence, but they also place a high value on the interpersonal aspects of the quality of care,¹ including the communication of information (see table 2-1). When asked the importance of certain characteristics for physicians, **96** percent of the respondents in a national survey stated that it was very important for physicians to be able to answer questions honestly and completely (see ta-

ble 2-1) (**392**). At least three of the other characteristics rated very important by at least 92 percent of respondents pertained to clear explanations of medical problems. Having a physician spend sufficient time to diagnose and prescribe not only was rated highly, but its absence was cited as a cause of dissatisfaction by a majority of people who changed physicians. Available research on the validity of patients' assessments discussed in chapter 11 of this report suggests that people do have the ability to judge the interpersonal aspects of care.

Whether lay people have the knowledge they need to evaluate the technical competence of a provider is not entirely clear. The discussion in chapter 11 concludes that research on the validity of patients' assessments of the technical aspects of medical care is sparse and difficult to interpret. Furthermore, some research results can be questioned because experts disagree on criteria for evaluating the technical aspects of quality. In a 10-item questionnaire administered to **4,976** nonelderly persons to measure their knowledge both in choosing medical care providers (e.g., specialist v. primary care physician) and in making decisions at the time services were used (e.g., whether to have an operation), Newhouse, et al., included board certification as a valid indicator of good quality (**464**); as discussed in chapter 10 of this report, however, definitive evidence on the validity of board certification of the technical quality of care is lacking. Thus, depending on how one interpreted them, certain responses to the questionnaire could signify either knowledge or a difference of opinion as to the validity of the indicator as a measure of quality. Other findings of the Newhouse, et al., study suggest that consumers are knowledgeable about some matters and uninformed about others.

Bunker and Brown's study of physicians' use of medical services gives indirect evidence on lay people's knowledge of quality of care (107). Surgical rates for physicians and their wives were found to be as high or higher than surgical rates for other groups of professionals (107). The

¹See ch. 3 for a discussion of the definition of the quality of medical care and its different aspects.

Table 2“1.—Ratings by Adults of the Importance of Selected Physician Characteristics, 1984

Characteristic	Very important (% of respondents)	Fairly important (o/o of respondents)	Not important (o/o of respondents)
Be knowledgeable and competent to treat your illnesses . .	97/0	20/0	—
Answer your questions honestly and completely	96	3	—
Explain your medical problems to you in a language you can understand	95	4	—
Make sure you understand what you've been told about your medical problems	95	4	—
Personally spend enough time with you to diagnose your problem and prescribe effective treatment	94	5	—
Really care about you and your health	92	7	2%0
Make a special effort to get you to explain your symptoms and problems completely	92	6	
Keep his or her medical fees reasonable.	84	13	;
Tell you about steps you could take to enjoy good health such as controlling your weight, getting enough exer- cise, and eating the right foods.	82	15	3
Have a friendly personality	70	25	4
Understand your economic circumstances	63	27	9

SOURCE: Louis Harris and Associates, *Americans and Their Doctors* (New York, NY: January 1985).

authors concluded that the physician-patient as an informed consumer places a high value on surgery and that placing a high value on surgery may overshadow knowledge about the necessity for surgical intervention. Bunker and Brown's study was done before the current emphasis on the appropriate level of care as a measure of quality. Recent findings on large variations in the use of surgical and medical procedures also have evoked interest in determining the appropriate use of services. Whether physician-patients today would act as they did in the Bunker and Brown study or whether consumers who are as knowledgeable as investigators assumed physicians to be would act in a similar fashion has not been examined.

Americans are interested in the quality of the health care they receive. Available evidence suggests that most consumers can evaluate the interpersonal aspects of health care (see ch. 11). Further research is needed, however, on patients' ability to adequately evaluate the technical aspects of care.

Individual Consumers' Interest in Information on the Quality of Care

The likelihood that an individual consumer will seek and ultimately apply quality-of-care information to choose physicians and hospitals depends in part on that person's propensity to adopt an active role in making health care decisions. Na-

tional and regional surveys substantiate a willingness among some consumers, particularly younger and better educated consumers, to play an active role in making health care decisions (285). A substantial percentage of consumers actively seek and use health information in decisionmaking. A recent study of 1,833 people enrolled in Medicare Part B and State government employees enrolled in indemnity insurance plans found that just under 40 percent of respondents engaged in consumer behaviors such as seeking information, exercising independent judgment, or being sensitive to the costs of health plans (296). Younger, employed individuals were more likely than the Medicare enrollees to have greater consumer knowledge, to exercise independent judgment, and to be sensitive to cost; older Medicare beneficiaries were more likely than the State government employees to seek health information. A survey of the top 10 metropolitan areas reported that 48 percent of consumers actively acquired information and evaluated health care providers prior to using the providers' services (65).

A survey of consumers in the top 20 U.S. metropolitan areas found that 35 percent of those surveyed were very active in seeking out information and evaluating the quality of care of health care providers before using their services (65). The consumers who sought information did so because they believed that differences existed among providers. An additional 13 percent of the con-

sumers surveyed stated that they went through the information-seeking and evaluation process when faced with an unfamiliar array of health care providers.

Anecdotal evidence suggests that few private individuals actively sought additional information about the hospital mortality data released by the Health Care Financing Administration (HCFA) in 1986. How many people knew about and then used the information in their choice of hospitals is not known, but HCFA did not receive any requests from private individuals for further information (357). Comparably, the 1986 release of hospital mortality data by California Medical Review, Inc., the California utilization and quality control peer review organization (PRO), generated only two requests by California Medicare beneficiaries to examine the primary data (435); perhaps one reason was that the costs of the information, \$10 per hospital, dampened individual user interest.^z

A sizable percentage, though a minority, of individual consumers are motivated to independently seek and use information to guide their choice of hospitals and physicians. Without strong promotional efforts to encourage other individuals to do the same, however, the effects of making quality-of-care information available may be limited. Methods of stimulating individual consumer interest in the quality of care are included as a component of the dissemination strategy outlined in the second half of this chapter.

Where Individual Consumers Can Find Information on the Quality of Care

Information on the quality of health care from sources such as the government, consumer groups, and channels including books and print and broadcast media is becoming more widely accessible than ever before to individuals and other consumers (355). Books on how to determine when to seek professional medical help and how to choose and use physicians and hospitals (64,370,563,678) have been followed by books for

lay people and health professionals on how to provide and interpret useful consumer health information (150,401,512). Within the past 5 years, consumer action groups—including the Public Citizen Health Research Group, Peoples Medical Society, Center for Medical Consumers, National Women's Health Network, and the Boston Women's Health Book Collective—have offered a variety of publications with information on how to evaluate and select health care providers. Recently, newspapers and magazines have been publishing articles and publishers have been printing books that provide consumers with guidance in selecting quality medical care, both at a general level (483,542) and for specific physicians (482) and hospitals (122,277,607,693). Even some hospitals (244) and health policy organizations (498) are publishing guidelines to use in selecting physicians or hospitals.

Numerous sources now provide hospital-specific data on mortality rates³ possibly related to the quality of care. In the early 1980s, the Public Citizen Health Research Group, a consumer advocacy organization, published a study of hospital specific mortality rates in Maryland for the 12 most common surgical procedures (55). The California PRO released mortality rate data for California Medicare patients in 1986 and 1987 (115,116), and the U.S. Department of Health and Human Services released such data for all Medicare patients in the same years (640,648). Local newspapers and magazines often report on the releases, increasing public access to the information.

In addition to hospital-specific information, some physician-specific information that relates to the quality of care is available. For example, information about formal disciplinary actions taken against individual physicians is available to consumers from State medical boards and publications (see ch. 6), and information on board certification is available from State medical societies and publications (see ch. 10).

Some health care information is specifically compiled for organizations. Health care coalitions

^zSee ch. 4 for a discussion of the release on information on hospital mortality rates by HCFA and California Medical Review, Inc.

³The individual chapters in this report that discuss hospital-specific and physician-specific indicators of quality identify sources of information on each indicator. See ch. 4 for sources of information on mortality rate data.

and consortia of insurance companies provide employers, unions, and other client organizations with information on facilities, staffing, and treatment variations in various hospitals (138,416).

As part of their cost-containment efforts, employers involved in financing health care have begun to introduce consumer information programs to give employees information about the price and quality of health care. The appropriate quality of care can help contain costs for employers via decreased absenteeism, increased productivity, and decreased disability of employees (256). Burlington Industries in New York City has a program that offers employees voluntary onsite or telephone personal counseling during working hours regarding the choice of optimal health services (241). Counselors assist Burlington employees in understanding their treatment options for health problems, including what is known about the quality of various treatments and providers. As part of its cost-containment strategy, Ryder Systems, Inc., uses the MedFacts program, a computerized data base of physician and hospital profiles, to help employees choose their medical providers on the basis of quality and cost information (129).

The Washington Business Group on Health is planning a Quality Resource Center that will gather information on the quality of health care throughout the Nation (256). The center will maintain a library, a retrieval service, an 800 number, a clipping service, and online access to computerized health data bases. The center will use a variety of methods to disseminate information on the quality of care to the general public as well as to its members, including newsletters, a toll-free telephone number, articles in journals, electronic mail, reports, and seminars.

Even though sources of information on the quality of care are increasing rapidly, barriers impede many individuals' ready access to the information. Most of the information is produced sporadically and may not be at hand when needed. People may not want or be able to expend the time and money required to obtain it. Some data that are available (e.g., hospital mortality data) may be too technical for average individuals to understand. Consumers most likely to use current sources are usually people who have higher than

average incomes and educational levels and are frequent users of print media (e.g., books, newspapers, and magazines) who actively seek information (617).

Reasons Individual Consumers Choose Hospitals and Physicians

Important factors in individuals' choice of hospitals and physicians are lay referrals by friends or relatives and consumers' perception of good quality care (see table 2-2). Freidson's seminal work on the lay referral system identified the recommendations of friends and relatives as central to the choice of health providers (234). Common wisdom and numerous studies support the importance of lay networks' advice on initial selection of a physician or hospital (255).

The importance of consumers' perception of the quality of care is illustrated in a number of studies (see table 2-2). Hickson, et al., found that parents' perception of a doctor's communication skills was the most important reason families had for choosing a physician to provide health care for their children (297). Accessibility and quality, as determined by recommendations of friends and physicians, were other important reasons for the choice of a physician. Stratmann found that quality of care was by far the most important of five categories (the other four are economic factors, waiting time in the doctor's office or hospital, convenience in access to care, and sociopsychological factors) in influencing the choice of health services (physician, hospital, and clinic) (603). Although Stratmann's findings must be viewed with caution because of his use of conceptually overlapping categories, a national survey confirmed his findings and reported that the key reasons for consumers' preference of a hospital were in order of importance: good medical care, proximity to home, prior experience, and a physician's recommendation (314). "Good medical care" represented a variety of responses in that survey, including availability of specialists, technology, and equipment; wide range of services offered; receiving personalized care; and good overall hospital reputation. The authors concluded that consumer perceptions of quality of care represented various components of hospital structure, perform-

Table 2“2.—Surveys of People’s Reasons for Choice of Health Services

Study	Population	Choice	Reasons for choice
Stratmann, 1975 (603)	521 Households in Rochester, NY	Choice of health services (hospital, physician, clinic)	Quality (> 40%), time, attitudes, cost Convenience
Flexner, 1978 (212)	Women needing abortions	Choice of an abortion service	Immediate availability of appointment Cleanliness and respectability Medical competency of staff
Glassman and Glassman, 1981 (255)	286 Women who recently gave birth	Choice of an obstetrician	Recommended by a friend or relative (46%) Recommended by a nurse (14%)
Inguanzo and Harju, 1985 (314)	Consumers nationwide	Choice of a hospital	Good medical care (48%) Close to home Availability of latest technology and equipment
Stewart, et al., 1985 (599)	229 Families in Arkansas	Choice of a primary care physician	Recommendation of friend or neighbor Personality of provider How much information provider gives Can get appointments quickly
Wotruba, et al., 1985 (719)	190 Heavy and infrequent users of care	Use of services in nonemergency situations	Heavy users: cost, convenience, physicians’ interest in patient Infrequent users: lay referral, convenience, courteous staff
LeFebvre, et al., 1987 (369)	241 Women who recently gave birth	Choice of a physician for prenatal care	Professional competence (friend or physicians’ recommendation, specialty, and hospital used) Convenience
Hickson, et al., 1988 (297)	750 Families	Choice of a physician for child health care	Parents’ perception of their physicians’ communication skills Accessibility Quality as determined by recommendation of friends or physicians

aNumber in parentheses refer to numbered entries in the reference list at the end of this report

SOURCE: Office of Technology Assessment, 1988

ance, and reputation, rather than any single indicator (314).

Individuals’ reasons for choosing physicians for nonemergency services have been found to depend on the extent to which individuals use such services (719). Heavy users of care have been found to be most influenced by cost and third-party coverage, convenience, and the physician’s interest in the patient. Infrequent users have been found to be most affected by lay referral, convenience, and courteous staff,

Studies that have examined women’s reasons for selecting health care providers have found technical competence to be of importance. Important

reasons for choice of an abortion service were getting an appointment right away, followed by cleanliness of the facility, respectability, and medical competence of the facility and staff (212). For women who had just given birth, two broad factors emerged as most important: professional competence or quality (as a reflection of friends’ and physicians’ recommendations, specialty, and hospital used); and convenience (369).

Willingness to change physicians is driven by strong motivation, except when a physician’s retirement or geographical relocation is the reason. Available studies have found that the reasons that people change providers are consistent

with the reasons people give when asked why they make initial choices of health providers: because of a friend's or relative's recommendation, because they are seeking better interpersonal care, or because they lack confidence in the quality of a previous provider's technical competence (see table 2-3).

Studies of consumers' reasons for choosing health services indicate that consumers often rely on the recommendations of friends and relatives

in making choices of providers, in large part because of the dearth of information on the quality of care, the difficulty of evaluating the information that is available, or a belief that lay opinion is an adequate substitute for expert opinion. Available studies demonstrate that the interpersonal aspects and the technical aspects of quality are important in consumers' decisions, even when objective information about the quality of care is unavailable.

Table 2-3.—Surveys of People's "Doctor-Shopping" Behavior

Study ^a	Population	Choice	Reasons for choice
Anderson and Bartkus, 1973 (43)	579 College students with prepaid health plan	Use of physicians outside the plan	Perceived quality of care Friends' views of quality (lay referral) Physicians' sensitivity to symptoms
Kasteler, et al., 1976 (341)	576 Families in Utah	Family member changing physician by choice without referral	atings of previous physicians' technical and socioemotional competence Low confidence in their physicians
Green, et al., 1979 (262)	1,278 Residents of 8 southern rural communities	Seeking new sources of primary care (not free or specialty care)	Correlates of choice: White race More frequent physician visits More shopping for acute and disabling conditions
Wolinsky and Steiber, 1982 (714)	1,530 Adults nationwide	Decision to choose a new physician	Recommendations of friends and neighbors (lay referral) Physicians' manner and personality Location, cost, and ease of getting an appointment
Marketing News, 1987 (404)	2,000 Consumers nationwide—quality minded users (largest group)	Changing health care providers	Advice of a trusted friend or relative, or recommendation of their current physician

^aNumber in parentheses refer to numbered entries in the reference list at the end of this report.

SOURCE: Office of Technology Assessment, 1988.

AN EFFECTIVE STRATEGY FOR DISSEMINATING INFORMATION ON THE QUALITY OF PHYSICIANS AND HOSPITALS

Information on the quality of medical care will become increasingly available over time. In the past 15 years, the volume of information available has expanded, and many signs suggest that the rate of growth will accelerate in the future. The information on the quality of care that is developed will not all be accessible to individuals;

nor will it enable individuals to make wise judgments in their choice of physicians and hospitals. Some information may be untruthful or unsubstantiated; other information will be as accurate as current knowledge permits. The question is how to disseminate the latter type of information most effectively—that is, how to ensure that con-

sumers will *acquire* state-of-the-art information and *apply* it when choosing physicians and hospitals.

The following actions are directed to achieving an effective strategy for disseminating information of the quality of physicians and hospitals. There is limited empirical evidence on how accessibility to health information affects people's choices of health care in general and whether access to information on quality of care affects people's choices of physicians and hospitals. Furthermore, a theory to explain consumer choice of physicians and hospitals on the basis of quality has yet to be developed. The strategy outlined below draws on theory and research on consumer information-processing and consumer decision-making from fields other than health and may have implications for choosing providers on the basis of quality. The specific components of the strategy are unproven and would require empirical verification before adoption.

Stimulate Consumer Awareness of the Quality of Care

Before making choices, consumers must perceive differences in the product or service and the possibility of making a choice (198). Most consumers recognize that there are differences in quality among providers (315), and a sizable minority are motivated to seek and use information on quality to guide their choice of physicians and hospitals (65). Consumers in the latter category are predominantly white, have high incomes, and are well-educated (243,315,341).

To enlarge the audience for quality-of-care information, an initial step would be to make consumers aware that there are differences in providers' care. Individuals who cannot envision the possibility of an option do not consider alternatives but exercise their habitual preferences (145,198). Informing consumers who do not already know it that hospitals and physicians vary in the quality of care they provide could stimulate greater efforts by consumers to acquire and use quality-of-care information in choosing providers.

In addition to a lack of information, psychological factors, which are difficult to overcome, may blind individuals to possible options or allow them to see alternatives only if they are presented in certain ways (619). Some potential choices may never get considered because an individual's habitual ways of framing preferences may exclude them. Since there are few data in this area, more research is needed before framing theory can be applied to choosing providers on quality grounds.

For some consumers, improved knowledge about differences in the quality of care among providers and the accompanying perception of the risk posed by poor care may increase their interest in quality-of-care information. The greater the potential harmful or undesirable effects of using a product, the higher the perceived risk and the greater propensity to seek out more data (60,198). Perceived risk can be equated with a sense of personal susceptibility (63), for example, the belief that one may be at risk when receiving medical care. Most people do not feel themselves at risk when receiving health care services in general (391). Medical care is not a homogeneous commodity, however, and individuals seeking treatment for serious conditions may have a greater sense of personal susceptibility than individuals seeking care for minor ailments.

Provide Easily Understood Information on the Quality of Providers' Care

Numerous factors affect people's ability to understand information. In general, there are limits on people's ability to process information (431,577). Even for individuals whose information-processing abilities are high, information needs to be easy to understand, because processing information requires the expenditure of finite resources (primarily effort and time) (70) that individuals may not want to expend. New information is especially difficult to process, because a person attaches meaning to a message by comparing it with old information stored in memory (198). For most people, quality-of-care information will be new, particularly if specific indicators of quality rather than general statements

about quality are presented. Consequently, care must be taken to disseminate meaningful quality-of-care information that is easily understood.

Furthermore, language will pose a barrier for some consumers. About 11 percent of the U.S. population speak a language other than English at home (634). To reach these individuals, information on the quality of providers' care will have to be translated into languages other than English; alternately or additionally, cultural interpreters may be needed.

To more effectively inform consumers about the quality of providers' care, limiting information to only a few indicators of quality will probably be necessary. People can consider only a few items at any one time (431,577). Information is processed as a unit or chunk—a person's processing capacity has been estimated as being anywhere from four to seven chunks (198). Research on label formats that describe the nutritional content and quality of food products suggests that when information is given about numerous attributes, consumers find the labels difficult to understand (633). Most food choices, however, are made at the time of purchase, whereas, except in emergencies, most health care provider choices are made before an encounter.

Factors specific to an understanding of technical topics will also affect a strategy for informing consumers about the quality of medical care. People vary considerably in their understanding of information about medical details (202). Understanding is diminished by the use of medical terminology and by the use of common English terms that have special medical meanings (e.g., history, acute). Some individuals have no or little knowledge against which to interpret the information presented (565).

Some consumers may find information on the quality of care as difficult to understand as medical terminology. Terms such as mortality rates and iatrogenic illnesses are technical words that are not employed in everyday life. Other terms used to designate quality indicators, such as volume of services and scope of services, are common words but they have a special significance as potential indicators of quality. To a lay person, the phrase scope of hospital services suggests

the specific services a hospital offers its patients. As a quality indicator, scope of hospital services refers to a hospital's resources for the medical conditions it professes to treat, or resources for the medical condition affecting a potential patient (see ch. 9).

Information would be more intelligible to more consumers if the use of technical terminology and the use of terms with special medical meaning were limited and words used in everyday language were substituted. The term hospital-acquired infection might be used instead of nosocomial infection. Words used frequently in everyday language are more easily comprehended and remembered than words used rarely or not at all in everyday conversation. The most suitable language of the information will probably vary by consumer groups because of differences in culture and educational level.

A particular problem is communicating information to consumers about mathematical concepts such as risks, percentages (202), and probability. Understanding the data on some quality indicators, including hospital mortality rates, requires an understanding of probabilities and risks. Because of the problems many people have in processing mathematical concepts, errors and exaggeration of risks occur in making choices (619). One way to increase comprehension might be to use both numeric and nonnumeric terms (such as small and large) to describe probabilities and risks; also the meaning of small and large in other and more familiar circumstances could be described.

Finally, the manner in which risk information is formulated can influence people's choices (337). Empirical studies of how the formulation of information affects choosing between medical interventions show that the choices differ by whether probabilities are formulated in terms of survival or of death.

Present Information via Many Media Repeatedly and Over Long Periods of Time

Sources of information vary among individuals and situations. Furthermore, people making choices use a variety of sources, usually in com-

bination, in their search for information when making choices (145,198,541). Although lay referral may remain as one of the most important sources of information for individuals when choosing health care providers, they nevertheless would benefit from access to a number of alternative sources. As an example, the most effective self care programs—the choice being self-care or physicians' care—have used more than one approach to provide information, including written material, group education sessions, and individual counseling (253). Special outreach efforts and information tailored to various educational levels have been necessary to ensure that these programs reached lower socioeconomic and minority groups.

There are a variety of media that can be used to convey information, and one form maybe better than another for conveying certain aspects of information (198). The mass media (print and electronic) inform average consumers about matters, such as the availability of products and services and the features of particular brands (145,541). The print media are probably consulted more than the electronic media for choices that involve a high degree of personal concern and have serious consequences (281). In addition, the effectiveness of a particular medium depends upon the type of consumer. In general, better educated consumers tend to rely more on the print media than do other consumers (198). A recent survey reported that printed materials, television, and informal networks of lay people and professionals were the most frequently used sources of information for respondents. Few respondents reported receiving health information from radio organizations (145).

Messages need to be repeated over a long period of time because people have limited ability to retain information (198), either because the memory of the message fades with time or other information interferes with retrieving the information (200). People's retention of quality-of-care information specifically appears to be slight (367). A survey of clients found that 2 months after the widely publicized release of hospital mortality data by HCFA, 48 percent of 900 interviewees in Milwaukee, Wisconsin, recalled that they had read articles or heard news reports on the topic,

but only 6 percent accurately recalled the content of the message. Also, the probability that the message will be processed and used in making a choice is determined in part by attitude and by social and situational factors (210). If information on the quality of care is presented only once or twice, a person may not be interested in it at the time it is presented. A sudden loss of employment and loss of health insurance coverage, for example, may cause an individual to ignore the information if he or she intends to delay a scheduled elective surgery.

Present Messages To Attract Attention

Capturing an individual's attention may not necessarily lead to the person to acquire and use the information presented, but it is a step in that direction. Capturing attention is influenced by individual characteristics. As noted earlier, one reason for repeated presentations of the same message is that people pay attention to messages that are relevant to their needs. People also try to maintain a consistent set of beliefs and attitudes (422) and attend to messages that enhance consistency and avoid information that challenges it. Thus, some individuals have to be sensitized to the fact that medical providers vary in quality of care and that they can choose among providers.

Another major factor in capturing attention is the characteristics of the message. How attributes such as size, color, intensity, contrast, position, structure, and movement affect the ability of information to attract attention has been well researched in the marketing field (198). Although consumers' choices of hospitals or physicians are rarely on-the-spot decisions, the lessons from marketing could be applied to disseminating information about the quality of such providers' care.

Present Information in More Than One Format

People use complex information processing strategies to choose among alternatives that differ on many features. One approach to processing information is to evaluate all the features of each alternative; another approach is to evaluate

all the alternatives with respect to a single feature, then a second feature, etc. (70). People require less effort to process information in the former way than in the latter.

Information on the quality of care provided by physicians and hospitals could be represented either by individual physician and hospital or by characteristic across physicians and hospitals. In the former case, the characteristics of individual physicians and hospitals could be displayed with respect to quality indicators (e.g., the specialty status of the physician, the presence or absence of disciplinary actions, the mortality rates of a hospital, and the scope of services of a hospital). In the latter case, quality indicators could be arrayed with the comparative standing of individual physicians and hospitals listed under each indicator.

Presenting information on the quality of providers' care calls for both approaches, because consumers have different levels of knowledge. Consumers who are thinking about going to or continuing to go to a particular physician or hospital would probably prefer to choose by the characteristics of the particular physician and hospital they are considering. Other consumers might prefer information presented in a format designed for comparative choice among several physicians or hospitals. Similarly, consumers with limited time would prefer to have information about a particular physician or hospital, while those with more time might accept information arrayed for comparative choice.

Use Reputable Organizations To Interpret Quality-of-Care Information

Consumers believe that reputation is a good proxy for quality, particularly when they find it difficult to judge quality and therefore perceive their choices as involving a high level of risk (60). Reputation of the manufacturer is often used as a proxy for quality in the choice of over-the-counter drugs, such as aspirin. Many consumers choose providers on the basis of their belief that reputation indicates quality. Providers' services involve some intangible characteristics (373,671), and the difficulties inherent in evaluating such characteristics may be a problem for consumers. This problem may lead consumers to rely heav-

ily either on a provider's reputation as known either directly or through recommendations from friends (609). Indeed, lay and professional referral, the most common sources of information on the quality of providers' care, are based mainly on providers' reputations. Consumers' acceptance of physicians' selections of hospitals (320,496) and referrals to other physicians illustrates consumers' belief that physicians are qualified to evaluate medical care.

A specific aspect of reputation is the credibility of the source of the information and consumers' trust and belief in the source's ability to evaluate the reputation of the provider. To ensure accuracy of information and to obtain public confidence, the source that interprets the information on the quality of care provided by physicians and hospitals should be a reputable one. Consumers' belief in a source of information increases their acceptance of the information. Trusting the source simplifies their decision; they can discontinue their search for information if the information they need has been acquired and processed by trusted regulators or consumer groups. The same source could then disseminate the information on providers' quality to other media and directly to consumers.

Consider Providing Price Information Along With Information on the Quality of Care

At times people's beliefs are inferential (210). Some people, for instance, believe that if the price is high, the quality is good (198). People tend to rely most heavily on price cues when quality information is unavailable and when they have little experience in evaluating the product (or service) (437, 575). Indeed, in assessing health care providers, particularly hospitals, patients often use price as a surrogate for quality (407).

In some cases, consumers go beyond quality when choosing providers; they make price/quality trade-offs. When making such trade-offs, consumers require price information. Consumers have a fairly great amount of information about the prices for routine care, but less about prices for surgical care (407). The reason may be that obtaining information about frequently used med-

ical services cost less than obtaining information on other types of medical services (407). Another possibility is that consumers may be more interested in the price of services that are usually not covered by insurance (e.g., pediatric care and routine checkups) than in price information for services extensively covered by insurance (e.g., surgical services).

Make Information Accessible

Consumers seek to process as little information as possible in order to make rational decisions quickly (268), and once they find a satisfactory alternative, they will discontinue their search rather than searching until they find the best alternative. The ease of obtaining information is an aspect of accessibility that is important to consumers when making decisions about providers of health care. Consumers are more likely to obtain and use information if it is accessible at all

times and if the physical location of the source of information is where the consumer can reach and use the information with the least possible expenditure of time and energy. Financial access to information is also important to consumers. The costs of information and the way information is provided should not deter consumers from seeking it. Making accurate information easily accessible improves the chances that consumers will use accurate information rather than poor information in making their choices.

Access to information on the quality of providers' care has been growing concurrently with the availability of such information. It appears that employers and the public increasingly will have information about indicators of quality of care accessible to them (442).

If information is to be effective, it must be accessible when consumers make decisions about providers, when they are changing providers, and



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Consumers are more likely to obtain information if the physical location of the source is easily accessible, such as in senior citizen centers.

when they are considering a physicians' referral to a physician or hospital. People search for information from sources that are easily accessible, in location, time, and monetary costs, and they continue their searches longer when the sources of information are accessible than when the information is hard to obtain.

Releasing new information through multiple forms of the mass media increases its accessibility. The release of hospital mortality statistics by HCFA is a step in that direction. Those statistics were reported not only in the print media, but also on the radio and television (see ch. 4). Another step might be to make quality-related information continuously accessible to consumers in hard copy and through computer terminals in libraries, senior citizen centers, adult education centers, community centers, and other facilities. Hard copy information could be provided to physicians, particularly referral physicians; this would assist them to make wise referral choices and to help patients who want the information interpreted. Cable television exposures could be considered as could "hot lines" that could provide a source of continuous information.

The acceptance of information on the quality of a providers' care is increased when it is accessible in familiar settings, such as libraries and senior citizen centers, where needed social support is present. Studies of consumers' reasons for choosing health services indicate that consumers often rely on the recommendations of friends and relatives; lay opinions and social networks play an important role in the evaluation and decision processes regarding choice of physicians and hospitals. Consumers need social support from peers, family, and friends in making choices of health providers. Expert-based information may seem less foreign if it is presented in familiar settings.

Social support helps reinforce a behavior change. The sources of reinforcement, which include family, peer groups, teachers, employers, health providers and the media, vary with the change being considered (262). The particular groups needed for some choices have been identified. A review of 150 articles on nutrition found that people need not only information but also support and followup reinforcement from fam-

ily, friends, and primary care physicians in making choices about nutritional intake (252). Furthermore, the relative importance of particular support groups has been established for a few behaviors in certain settings. Adolescent drug-taking behavior, for example, is most influenced by approval from friends (321), especially a best friend (338a). Sources of support when making choices about providers on quality grounds and their relative importance are other areas that need to be examined.

Provide Consumers the Skills To Use and Physicians the Skills To Provide Information on the Quality of Care

Specific skills are required for consumers to be able to *use* effectively information on the quality of care that they have acquired. Knowledge alone is not sufficient. If the purpose of providing information is to change health behavior, certain knowledge about how to follow the physician's advice is essential (62). If the purpose of providing information on indicators of quality is to assist consumers in choosing physicians and hospitals, consumers will need skills or assistance in interpreting the information and in asking questions about its significance in individual situations. Physicians are likely sources of such information.

Consumers who call on their physicians for assistance in interpreting the meaning and use of indicators of the quality of care need skills to ques-



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Consumers need the skills to enable them to ask their physicians the right questions about their conditions and treatments.

tion them. Although some consumers are hesitant to question physicians, two experimental studies demonstrate that patients can successfully be “coached” to ask more questions of physicians and to secure more information about their conditions and treatments (264,540).⁴ Consumers need the

⁴Some organizations have started to provide information to consumers on how to ask questions of physicians, e.g., the National Women’s Health Network has a publication “Plaintext Doctor-Patient Checklist,” which lists questions to ask physicians during an appointment (458). A publisher, Krames Communications, issues a comic-book format brochure, “Asking Questions: For Only

skills to make them capable of asking the right question. In addition, physicians must be willing and able to provide help and interpretation. Some physicians might benefit from continuing education to make them aware of their patients’ desire for information and to acquire the skills and resources to answer their patients’ questions. Physicians need skills to ensure that the desired information has been transmitted.

the Best Health Care,” with types of questions for patients to ask physicians during different types of encounters (358).