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Information about primary care physicians considered most useful by managed health care consumers

Janet Marie Webb

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INFORMATION ABOUT PRIMARY CARE PHYSICIANS CONSIDERED MOST USEFUL BY MANAGED HEALTH CARE CONSUMERS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Health Services Administration

by
Janet Marie Webb
June 1997
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ABSTRACT

This thesis presents the results of an exploratory study designed to ascertain what information about primary care physicians consumers would consider most useful when choosing a primary care physician out of a health plan provider directory. A list of information items about physicians, not normally included in provider directories but which were indicated by the literature review, was presented in survey form to the employees of a major state university. The results suggest that the information consumers consider most useful about a primary care physician at the point of selection is the degree of patient satisfaction with the quality of care received and with access/availability of the physician. Physician choice criteria identified by previous research as most important were among the top five information items that were chosen by the respondents in this study ("interpersonal skills," "competence" and "access/availability of the physician." Information items considered most useful were slightly different for various demographic groups. Implications of the study's findings for the need to make adequate
information regarding physicians available to managed care consumers, thus enabling them to make intelligent, informed choices regarding their health care, are discussed, as well as implications for effective physician marketing and future research.
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CHAPTER 1
INTRODUCTION

Problem Statement

Most individuals with managed care health insurance must select a primary care physician (PCP) out of their health plan's provider directory. A provider directory is a list of providers (i.e. physicians, pharmacists, hospitals, etc.) in a defined service area who are licensed, principally owned by, affiliated with, employed by, or under contract to provide health care services on behalf of the managed health care plan. Choosing a physician who will provide for one's primary care from a list of probably unfamiliar names in a directory, presents a new kind of challenge to health care consumers seeking to make informed choices regarding their health care and that of their families.

Past studies have shown that when choice of physicians was not limited by health insurance, word-of-mouth and physician referrals were relied on as primary sources of information about physicians. Previous studies have also indicated what criteria have been important to individuals
in selecting a physician in a fee-for-service arrangement, where the patient is billed at the time of service according to a fee schedule set for each service and/or procedure to be provided. These criteria included price, location, accessibility, credentials of the physician, quality of the admitting hospital and the physician's willingness to listen and explain. To determine whether one's physician-choice criteria were met by a particular physician, the consumer relied on reports and recommendations from family members, friends, co-workers, neighbors and other physicians (Hanna, Schoenbachler and Gordon 1994).

Now, however, consumers must often choose a PCP from a list of physicians in a health plan provider directory. The PCP, or primary care physician, will provide treatment of routine injuries and illnesses and coordinate all of their medical care. It is likely that the majority of the physicians who are contracted with the plan will be unfamiliar to the prospective patient or to their recommendation or referral sources. Thus the managed care consumer has become more dependent on the provider directory for their source of information about a physician.
Managed care plans typically print a large provider directory covering a vast territory, i.e. Southern California. The directories are cumbersome for the consumer who must find a physician within a reasonable drive from home or work. Because of space limitations, the directories typically only list each participating physician's name, title, specialty, address, phone, medical group, admitting hospital, and perhaps board certification. To provide information concerning additional choice criteria for each physician would be very difficult within the provider directories' current framework.

Since the 1982 Supreme Court decision allowing physicians to advertise, some physicians have placed advertising in print media such as yellow page display ads, newspapers, magazines, direct mail, and fliers. Costlier ads (television, radio, billboards, and large display ads in print media such as newspapers, yellow pages and magazines) typically feature a physician group rather than an individual physician, and hence do not give specific information relative to the physician-choice criteria cited earlier. The author's survey of those ads in the Los
Angeles and San Bernardino areas that do feature individual physicians reveals that the ads typically list the physician's name, title, specialty, location, and phone number. The ads may also list some limited objective information such as medical education, training and the number of years of experience. Subjective qualities may be attributed to the physician, such as "caring" or "compassionate." Individual physician ads with this type of information are usually advertising physicians who are new to practice or to a particular medical group. Most physicians (at least in the Los Angeles and San Bernardino area) do not advertise, except as part of a large physician group or as a classified yellow page listing. Therefore, the Supreme Court ruling allowing physicians to advertise has contributed little information to consumers wishing to know how physicians measure up to consumers' choice criteria.

Government experts point out that quality assessment must be conducted more at the consumer level than in the past, and that consumers need to rely less on subjective ratings of quality (i.e. good listener, understanding) and
more on objective, clinically based measures of quality (Sakson 1996; Internet June 1996). Consumers need to be informed concerning the quality of a physician, according to governmental quality experts. This information as pertaining to individual physicians is not currently available.

As a result, when asked to choose a PCP, current managed care consumers typically have scant information upon which to base one of the most important, far-reaching choices affecting their life and that of their dependents.

Background

What is "Managed Care"?

American medicine is rapidly being restructured from a fee-for-service to a managed care system. The term “managed care” generally refers to a system under which health care payment and delivery are intertwined. As the term implies, patient care is “managed” in order to provide quality care on a cost-effective basis by avoiding services that are not medically necessary or are duplicative. Managed care programs generally feature a restricted group of health care
providers available to plan participants, concurrent or prospective utilization review, and some form of provider incentives. These features allow the managed care plan to control the cost of health care.

A Health Maintenance Organization (HMO) is an organization of health care personnel and facilities that provides a comprehensive range of health services to an enrolled population for a fixed sum of money paid in advance for a specified period of time. These health services include a wide variety of medical treatments and consults, inpatient and outpatient hospitalization, home health service, ambulance service, and sometimes dental and pharmacy services.

The HMO may be organized as a group model, an Individual Practice Association (IPA), a network model or a staff model. IPAs and staff model medical groups are entities formed by physicians for the purpose of managed care contracting. IPAs permit physicians who maintain separate practices to achieve sufficient marketing clout to obtain managed care contracts without integrating their practices, while medical groups employ physicians and manage
their practices. In addition to contracting, IPAs and medical groups are vehicles for accepting risk. The HMO will pay to the IPA or medical group a predetermined amount per member per month (capitation), and the IPA/medical group will be responsible to pay for all health care received by the health plan members assigned to it. Thus these physician groups have an interest in minimizing utilization.

The Increased Need for Informed Consumer Choices

In the past, most Americans were satisfied with their health care system as long as they could pick any doctor, switch any time, and send the bills to the insurance company (Sakson 1996). With today’s HMOs and other managed health care plans, this freedom of choice is greatly diminished. As a result of this restriction of trade, and of managed care’s aim of cutting costs, a national uproar has ensued over the quality of managed health care. The media has been full of stories about denial of needed care by a physician or health plan in order to cut costs. Lawsuits have been won charging that profit-hungry providers have denied their members critically needed treatment (Lucas 1996). HMOs
contend that quality of care has in fact improved with managed care, and that the majority of their members are satisfied with their care, but many question whether the drive to reduce cost has also resulted in a reduction in quality. When the care provider must assume some or all of the financial risk, there is a concern that price will influence medical judgment. Concern for quality creates an increased need for consumers to make intelligent, informed health care choices.

Managed Care Limitations on Consumer Choice

Becoming as effective a consumer in choosing health care as in choosing cars or entertainment systems is a challenge for most Americans. In contrast to car and home entertainment shoppers, health care customers and health care consumers are not the same entity. Major employers, who are responsible in large part for the managed-care revolution that is restructuring American medicine, purchase health insurance for vast blocks of health care consumers. Their employees, the individuals who have the most at stake, do not have the power of other kinds of consumers, who can
take their business elsewhere if they are not satisfied. Instead, employees' choices are limited by the plans offered through their employer.

Not only are consumers limited in their choice of health plans, they are limited in their choice of a PCP by the existing contracts the health plan has with the various IPAs and/or medical groups in the area.

The Need for Objective, Consumer-Friendly Information

A health plan and/or the IPA or medical group will control the quality of its physician panel to an extent; however, there still exists a wide spectrum of quality among providers available through any one plan. To make an informed choice of a physician, a decision which can have one of the greatest impacts on the quality of care received, consumers need solid, reliable information about the physicians from which they must choose. The limited objective, consumer-friendly information available for managed care consumers to use in comparison shopping for a primary care physician (PCP) presents a major challenge to Americans in being effective consumers of health care.
An informed choice of a health plan is possible if an employee is willing to do some research. The National Committee for Quality Assurance (NCQA), a not-for-profit organization performing accreditation review of managed care plans, has set quality standards for managed health care plans and accredits plans that measure up to its standards. Information on which plans are accredited is available from the NCQA. NCQA also has a set of performance measures of managed health plans for employers called HEDIS (Health Plan Employer Data and Information Set) that rates the plans. (See pages 38-40.) HEDIS is a pilot project begun in 1991 to standardize health plan performance measures of quality, access, patient satisfaction, utilization and finance.

More and more health plans are producing “report cards” based on HEDIS criteria which are available to consumers. However, studies are showing that consumers need help in understanding health care report cards. The public has not been educated to understand, for example, that high rates of hospitalization for pediatric asthma patients and low birthweight babies often represent poor patient care.
Consumers' past choice criteria of physician quality was concerned with price, location, accessibility, the credentials of the physician, and the physician's willingness to listen and explain. It would be helpful to consumers if the NCQA's health plan performance measures applicable to individual physicians (i.e. those relating to the delivery of health care services as well as measurements of patient access to health care and of patient satisfaction with the care provided) could be reported on an individual physician basis and made available to consumers.

To maintain the quality of health care to which they have become accustomed, Americans are being encouraged to change from being passive patients to analytical consumers. However, comparison shopping of the plans and the providers requires detailed information. While "report cards" on health plans may be available to the consumer, the reports only give the over-all picture of the plan, and are not broken down by individual physician. Managed care plans provide only minimum information concerning physicians in provider directories. Thus, little objective, consumer-friendly information needed by consumers is currently
available to compare available physicians and to make judgments as to quality and other physician-choice criteria. Based on this lack of available information, the following study has been performed.

**Purpose**

The purpose of this study was to provide information on what data should be made available to managed health care consumers about primary care physicians (PCPs) so that these consumers can make intelligent, informed health care provider choices within the choice constraints of managed care. More specifically, the research sought to answer the following question: Given a choice of information items about physicians that previous research has demonstrated that consumers use most to evaluate physicians, and given the managed care quality standards as defined by the National Committee for Quality Assurance, what information items will consumers consider most useful in selecting a PCP from a health plan provider directory?

This study differs from previous studies in that the survey instrument includes information items concerning a
physician that have been suggested as highly important quality indicators by the National Committee for Quality Assurance (e.g. objective measurements of the physician's performance in the delivery of health care services; of patient access to health care and of patient satisfaction with the care provided). Most of these items were not listed in previous studies as being considered important by consumers and are currently unavailable to consumers as they apply to individual physicians.

Significance

The information identified by this study as most useful to consumers in choosing a PCP should assist health insurance plans in creating more useful, consumer-friendly provider directories. Physicians, medical groups and IPAs will be able to use this information to create more effective advertising to influence consumer choice of that group's physicians.

With this increased availability of information, consumers will be able to make more intelligent, informed provider choices. As a result, there will be less patient
turnover and accompanying administrative demands. Those physician groups who utilize this information in their advertising should see an increase in patient enrollment. Most importantly, consumers' health status should improve because of their ability to do intelligent comparison shopping among physicians.
CHAPTER II
LITERATURE REVIEW

As a background to this study, literature was reviewed in the following areas: (1) studies demonstrating the physician-choice criteria and cues used by consumers, (2) studies comparing the physician information desired by consumers with the information that is available through physician advertisements, and (3) information regarding physician quality and other criteria considered important to consumers by U.S. government agencies.

Physician-Choice Criteria and Cues

The rapid change and increasing competition which has characterized the health care industry over the past decade has created an increased interest in marketing among health care professionals. Of particular importance to both marketing researchers and health care professionals has been the determination of criteria consumers use when selecting a physician. Much research over the past twenty years has been conducted to aid those involved in health care marketing to understand the criteria consumers use to
evaluate physicians and to identify which cues are used to assess those criteria (e.g. referrals from friends, family, or physicians).

Research has shown that managed care patients prefer to stay with their current physician if possible, if they are satisfied with that physician (Stewart et al. 1989; Jensen, 1994). Stewart reported a study finding that the single most important determinant of choice of health care plan was whether the consumer was satisfied or dissatisfied with their past health care provider. Thus, if they had used a particular provider that they were satisfied with, they tended to select a health plan which contracted with that provider (Stewart et al. 1989). In a telephone survey reported by Jensen, 1,000 heads of households were asked to choose the two most important criteria in a health plan. One-fourth indicated that keeping their current primary care physician (PCP) was the most important criteria. This was the top-rated criteria in the survey (Jensen, 1994).

However, if the consumer’s current physician is not a contracted provider with the consumer’s health plan, they must choose a new PCP. When a consumer is required to
choose a PCP out of a health plan directory, the consumer may or may not have prior knowledge about one or more of the physicians listed. Previous research conducted in a mostly fee-for-service environment has shown that patients' primary sources of information were word-of-mouth and physician referrals (Hanna, Schoenbachler and Gordon 1994).

Additional information sources about physicians now available to managed care consumers include advertising by physicians or physician groups (MacStravic 1988), information provided by health plan sales representatives, and the health plan provider directory, from which a consumer must choose their primary care physician. The consumer must base their selection of a PCP on the information at the consumer's disposal when a PCP selection must be made. This information may or may not include the criteria that they consider to be relevant or important.

Various studies have been conducted to determine what criteria are most important to consumers in selecting a physician. Hanna, Schoenbachler and Gordon (1994) conducted an exploratory study designed to (1) ascertain the primary sources of information consumers use when selecting
physicians and (2) identify differences in patient selection factor importance by type of physician under consideration (specialists versus generalists). The authors' questions were developed into a survey instrument to measure the variables. Information was collected via a mail questionnaire which was sent to 300 adults residing in a large, mid-west metropolitan area. The survey yielded a 41% response rate.

To assess the primary sources of information consumers used to select a physician, respondents were asked to indicate how they selected their family physician. Forty-six percent (46%) of respondents indicated word-of-mouth as the primary source of information. Thirty-one percent (31%) selected their physician based on the recommendation of another physician. The results indicated that word-of-mouth and physician referrals were the primary sources of information in a fee-for-service environment.

In attempting to identify differences in consumer selection factors, respondents were asked to rank the importance of nine selection factors utilized in selecting a general family physician and in selecting a specialist.
Without taking into account demographic characteristics, the factors for selecting a general family physician were ranked by respondents as follows:

1. Flexibility of pay plan
2. Fees
3. Distance to office
4. Office wait
5. Accessibility by phone
6. Specialization
7. Quality of hospital
8. Willingness to explain
9. Education and experience

There was no difference in the ranking of the top five criteria between generalists and specialists. The study found that elderly consumers or those with children were found to consider the criteria of the physician's accessibility by phone to be important. The study also found that consumers with higher education levels were concerned with hospital quality.
The nature of information search and decision making in the selection of family health care was the subject of two studies reported in 1989 (Stewart et al.). The purpose of the first study was to determine (1) how consumers search for a primary health care provider; (2) whether consumers who select different types of providers are seeking different sets of benefits; (3) could these consumers be segmented on the basis of demographic variables; and (4) whether the process of provider selection differs when selecting for self versus when selecting for others. A survey instrument was sent to 750 members of a mail panel chosen to represent a cross section of the state of Arkansas.

With a 77.5% response rate, the study found that age was an important factor in the type of physician selected. Of those between 19 and 35 years of age, only 2% reported an internist as their PCP. In the 36-49 years of age bracket, 14% reported using an internist. At age 50 and older, internists represented 42% of the primary health care providers for the sample. Among households with a regular health care provider for their children, the younger the
child, the more likely a pediatrician was used as a PCP for that child. The use of family physicians increased as the use of pediatricians declined. Pediatricians were more likely to be the provider of choice when an OB/GYN physician delivered the child. Households that selected a pediatrician as the PCP for their child considered more physicians and more types of physicians than did those selecting a family physician.

Respondents were asked to rate the relative importance of various information sources used in selecting a health care provider. The findings suggested that the perceived relative importance of a source of information varied by type of provider selected. Friends and non-physician medical health professionals appeared to be more important sources in the selection of an OB/GYN than of an internist. Family and other doctors were important sources in the selection of both specialties. Friends were a more important information source in selecting a pediatrician than in selecting other specialists.

The criteria most important in the selection of a health care provider for a child were as follows:
1. Doctor’s willingness to go to the emergency room
2. Doctor is a good listener
3. Doctor’s formal qualifications
4. Doctor tries to avoid hospitalization
5. Doctor is female
6. Doctor does not appear to be in a hurry
7. Doctor allows parent participation in selecting treatment alternatives
8. Doctor returns calls quickly
9. Could get an appointment quickly

Important criteria for the selection of a health care provider for self were found to be as follows:

1. Doctor is a good listener
2. Doctor willing to discuss treatment alternatives
3. Doctor tries to avoid hospitalization
4. Doctor’s formal qualifications
5. Doctor is willing to go to emergency room
6. Doctor does not appear in a hurry
7. Recommended by another physician
8. Could get an appointment quickly
Users of pediatricians were concerned that the practice have more than one doctor and that the doctor be willing to evaluate and discuss a child's development and behavior. Adults who selected a family physician appeared most interested in responsiveness, immediacy of care, and the personal rapport of the physician with the patient. Those selecting internists were less concerned with these factors.

The study suggested that health care consumers experience a high degree of dissatisfaction with providers at some point in time. Generally, the factors most frequently contributing to dissatisfaction were related to the perceived quality of care, availability of the provider and the provider's perceived concern for the patient. Dissatisfaction with the physician's expertise appeared to be a significant source of dissatisfaction with family physicians.

The second study in the 1989 report by Stewart dealt with the following two questions: (1) Do consumers who have a personal physician differ in characteristic ways from those who do not? If so, in what ways? (2) Do consumers who have used walk-in medical clinics or who have selected
HMOs instead of more traditional insurance coverage differ in systematic ways from other health care consumers? Of the questionnaires mailed to 3000 selected households, 61% were returned. The findings indicated that respondents who reported having no regular health care provider were most likely to be single or never married. Men were less likely to report having a regular provider than women. The probability of having a regular provider increased with age. Those with higher income levels were more likely to have a regular provider.

The study found some evidence that persons without a regular physician made greater use of walk-in medical facilities. Users of walk-in facilities in this study tended to be more highly educated. Few differences among respondents were related to the type of health care coverage, with the exception that those with lower income levels were least likely to have any form of coverage and those with higher incomes were more likely to have traditional indemnity plans.

According to Stewart (1989), the findings of these two studies suggested that "families carry out very limited
search when selecting health care providers, regardless of whether the provider is for an adult member of the household or for children. . . . Families tend to rely primarily on information obtained by word of mouth from just a few individuals or on personal experiences as a patient. . . .

The findings appear consistent with prior empirical findings and theoretical arguments that high levels of information search are rare, even in high involvement situations, when consumers cannot easily obtain or evaluate information” (p. 37). These studies concluded that when obtaining information about providers, health care consumers appear to rely on friends, family, or other health care professionals.

The findings indicated that families who selected different types of physicians were seeking different sets of benefits. Stated Stewart, “Those utilizing family and general practitioners obviously were seeking providers who can care for the whole family. Some of these families also appear to place a greater premium on cost and convenience than do those using pediatricians. In contrast, families
with very young children appear to be more inclined to select pediatricians" (p. 38).

The Stewart (1989) studies also indicated that personality characteristics of physicians and access to care were highly important.

Regardless of type of physician selected, all families appear to place great importance on issues related to the art of care by the physician (willingness to listen, explains well, warm personality, and involves patients in decision making). In addition, a high degree of importance is attached to ready access to care when needed (physician returns calls quickly and will go to the emergency room. . . .Possibly the significant practice dropout rate documented in our study occurs in part because personality and access cannot be known in advance and expectations are not met in the context of the medical encounter. Indeed, there is some evidence that family practitioners may have reason for particular concern on this dimension (p. 38).

A 1992 study examined how 963 expectant mothers in Florida (84% of the sample) searched for and selected a prenatal care provider (Hoerger and Howard 1995). Interviews were conducted by telephone if possible, or in person. The results suggested that, with the exception of women facing high coinsurance rates or whose choices are constrained by HMO or Medicaid coverage, pregnant women relied most heavily on information from friends and
acquaintances. Less than a quarter of the women surveyed seriously considered more than one physician. The study concluded that due to the timing, importance and relative frequency of pregnancy, if search is uncommon for prenatal care providers, it is even more uncommon for other providers.

The study demonstrated that women covered by HMOs or Medicaid are less likely to rely on information from friends or colleagues, since the recommended physician might not participate in Medicaid or the woman's HMO. Women belonging to HMOs are more likely to rely on information from other doctors or someone else (possibly an HMO sales representative).

The following criteria were the top determinants of choice reported by the study, as ranked in order of importance by the respondents:

1. Physician expertise
2. Friend or relative recommendation
3. At preferred hospital
4. Physician available by phone
5. Physician recommendation
A study by Crane and Lynch (1988) examined the criteria and cues consumers used in selecting physicians and dentists. Competence and courtesy were found to be the most important criteria, with personal referral cues as the determinant most often used in the initial selection of providers. A randomly selected sample of 100 adults were interviewed in a free-response situation. Respondents were asked to name the criteria they use in selecting physicians and dentists. Top of mind criteria used in provider selection were as follows:

1. Courtesy
2. Competence
3. Reputation
4. Interpersonal skills
5. Access/availability
6. Price

Cues relied on when selecting physicians were:

1. Personal referral
Another study examined the process by which a family identifies and selects their child's physician (Hickson et al., 1988). A close-ended questionnaire was administered to 750 families in a mail panel. Of the 244 who had children in the home, 93.9% identified a regular and current physician for their youngest child. The study found that parents did not spend much time or energy selecting a physician. Selection priorities ranked in order of importance were:

1. Parents' perceptions of their doctors' communication skills
2. Accessibility
3. Quality as determined by recommendations of friends or physicians.
A 1991 study investigated the importance individuals place on each of 19 criteria in their choice of a physician (Hill and Garner). Two-hundred five adults in western Kentucky were asked to rate the importance of choice criteria and to rank the five most and five least important of these. Comparisons of mean ratings for men and women showed that women tended to rate criteria as more important than men, especially those dealing with the physician's interpersonal skills. The selection criteria in choice of a physician ranked by mean importance ratings were as follows:

1. Seems knowledgeable in the field
2. Seems interested in my particular problem
3. Explains what they are doing and why
4. Offers practical solutions to my problem
5. Asks me appropriate questions about my problem
6. Spends enough time with me
7. Treats me in personal manner
8. Hires competent assistants
9. Is not pushy or abrasive in manner
10. Prices are not too high for the services rendered
11. Does not keep me waiting when I have an appointment
12. Does not interrupt the time with me to deal with other matters
13. It is easy to get an appointment
14. Is recommended by other people
15. Is willing to allow me time to pay
16. Is skilled at putting me at ease with small talk
17. Pleasant waiting area
18. Has a large number of other clients
19. Is active in community affairs

From the above data, Hill and Garner concluded that "criteria directly related to the physician's understanding of the patient's medical needs and competence in taking care of those problems are of primary importance in the choice of a physician" (p. 495). The results of this study suggest that most consumers are concerned that a physician actively demonstrate competence by spending time with and talking with them about their problem and options for treatment.

Hill and Garner presented a summary of findings from the literature on the most important physician selection criteria. The criteria most frequently ranked as important can be summarized as follows:
1. Courtesy, good listener and communicator, caring, time/explanation given
2. Competence, recommended by other doctors, good reputation
3. Access/availability
4. Willing to discuss treatment alternatives
5. Access to preferred hospital, tries to avoid hospitalization

**Physician Information Contained in Physician Advertising**

Within the last twenty years the ban against advertising by physicians which had been formulated by the American Medical Association in the nineteenth century has been lifted to allow consumers the opportunity to be made more knowledgeable and to encourage better quality of services, decreased fees due to competition, and more efficient services (Leventhal 1995).

In a study reported in 1995, Leventhal found that one out of two respondents favored physician advertising. As in previous studies, personal and medical sources were the primary sources of information about physicians. The data
further showed that telephone directory ads were the least mentioned source in learning about personal physicians.

When asked what sort of information they would use to select a personal physician, respondents indicated that their decision would be primarily based on service attributes (fees, office location, specialty, education degree, experience and availability). Respondents indicated information needs most often as a reason for physician advertising.

Several prior studies have reported on the specific information consumers want and value in medical advertisements (Butler and Abernethy 1994, Cobb-Walgren and Dabholkar 1992, Freiden and Goldsmith 1989, King and Haefner 1988).

In a 1994 study by Butler and Abernethy, consumers were asked to rank the information most important in a physician’s advertisement. Availability information (phone number, location, services performed) was generally ranked as most important. The next most important information consumers wanted was professional qualifications.
Information relating to payment and physician costs were also considered important.

In 1992, Cobb-Walgren and Dabholkar found that consumers considered the following types of information as most informative in a physician yellow page advertisement, the most widely used form of physician advertising:

- Business name, address, telephone number
- 24-hour answering service
- Type of practice
- Specific services
- Logo
- Hours of operation
- Method of payment
- Credentials
- Fees
- Routine services

Large ads with a greater amount of information were deemed influential and resulted in the most positive behavioral intent from respondents.
Butler and Abernethy (1996) recently conducted a study on yellow page advertising. Because of the high cost of display advertising in the yellow pages relative to other forms of advertising available to health care professionals, it is important for health care advertisers to understand what physician information consumers seek from yellow page advertising. The authors maintained that if health care advertisers know what information consumers seek from yellow page advertising, that "it will be easier to include important information while excluding information that merely increases the size of the ad (and thus costs) without providing additional benefits to the physician" (p. 46).

Butler and Abernethy hypothesized that (1) most physicians will not incur the additional expense to gain additional attention custom yellow page ads, and that (2) those using display ads will not provide the major categories of information wanted by consumers in yellow page display ads.

The study first conducted a census of the yellow page listing of every physician in three large cities. The contents of the listings were analyzed to determine the types and amount of information provided to consumers. The
researchers then utilized an open-ended question format which was administered to every 10th adult person entering one of five regional malls in the Southeast. Respondents were asked to indicate the information they would like to find if they were searching for a physician. The results indicated that the type of information desired by respondents in yellow page advertising is more objective than the interpersonal skill criteria generally indicated as most useful in the studies noted in the previous section, "Physician-Choice Criteria and Cues" Butler and Abernethy reported that the information most frequently sought by consumers in yellow page advertising is as follows:

1. Service offering/specialty
2. Address/location
3. References
4. Availability/hours of operation
5. Years of experience
6. Professional qualifications
7. Insurance information
8. Fee information.
Forty percent (40%) of the yellow page ads analyzed in the study were display and in-column ads that provided information beyond the standard name, phone number and address. Therefore, the authors rejected the first hypothesis, that the majority of physicians using the yellow pages employ non-display regular listings. Finally, the consumers responses were compared to the information provided by physicians in yellow page advertising. Each display and vertical column ad averaged 5.6 information cues, with the majority relating to the actual service provided by the physician. The most frequently occurring information was as follows:

1. Service offerings/specialties
2. Address
3. Professional Qualifications
4. Phone information
5. Twenty-four hour service
6. Operating hours
7. Professional memberships

Specialists had more service offerings/specialty information while general practitioners had more information
about days open and having helpful/qualified assistants and personnel. The second hypothesis was also rejected, as the study found that physicians were generally providing the major categories of information desired by the respondents. The ads examined in the study did not include enough information, however, about years of experience, insurance information and fee information, all of which were valued by many respondents.

Governmental Health Plan Performance Measures

The Health Plan Employer Data and Information Set (HEDIS) is a set of performance measures developed by the National Committee for Quality Assurance to provide employers with objective information about various health plans. Consumers are also using the HEDIS criteria to make comparisons across health plans as more and more health plans produce "report cards" based on HEDIS.

HEDIS deals with the following five major areas of health plan performance:

1. Quality of care
   a) Preventive Medicine
i) Childhood Immunization

ii) Cholesterol Screening

iii) Mammography Screening

iv) Cervical Cancer Screening

b) Prenatal Care

i) Low Birthweight

ii) Prenatal Care in the First Trimester

c) Acute and Chronic Disease

i) Asthma Inpatient Admission Rate

ii) Diabetic Retinal Exam

d) Mental Health

2. Member Access and Satisfaction

a) Member Access

i) Percentages of Members aged 23-39 and 40-64 with a Plan Visit in the Previous Three Years

ii) Number and Percent of PCPs accepting New Patients

iii) Provision of Plan Access Standards for Various Types of Visits and Telephone Responses

b) Member Satisfaction
i) Percent of Members who are "Satisfied" with the Plan

ii) Provision of Plan Satisfaction Surveys

3. Membership and Utilization
   a) Membership enrollment/disenrollment
   b) High Occurrence/High Cost Procedures - Frequency and average cost of nine DRG categories and the frequency of seven selected procedures
   c) Inpatient Utilization
   d) Ambulatory Care Utilization
   e) Maternity
   f) Newborns
   g) Mental Health
   h) Chemical Dependency
   i) Outpatient Drug Utilization

4. Financial Stability
   a) Overall Performance
   b) Liquidity
   c) Efficiency
   d) Compliance with Statutory Requirements
   e) Premium Trend Information
5. Health Plan Management and Activities

As HEDIS becomes more refined and more widely utilized, it will become more useful as a benchmarking tool for documenting plan performance and for providing valuable information to employers and consumers (Internet February 1995).

The Agency for Health Care Policy and Research (AHCPR), a part of the Department of Health and Human Services, is the lead agency charged with supporting research designed to improve the quality of health care, reduce its cost, and broaden access to essential services.

The findings of a project supported by AHCPR demonstrate that although consumers are very interested in having access to quality-of-care information about health plans, physicians, and hospitals, many of them do not understand some of the indicators appearing in health care report cards. For this reason they are more apt to rely on subjective patient ratings of quality than on objective, clinically based measures. In conducting the project, Hibbard and Jewett, of the Oregon Research Institute, found that consumers need to be educated about the meaning of
quality indicators and how health plans influence quality of care. Hibbard and Jewett conducted fifteen focus groups and surveyed insured and uninsured individuals to explore consumer understanding of health care quality indicators. The focus groups showed that “consumers had little understanding about the meaning of some quality indicators, for example, that high rates of hospitalization for pediatric asthma represent poor patient management and low birthweight babies often represent poor prenatal care. Many also did not understand that plans can influence how many members have mammograms or other preventive screening tests. Uninsured and Medicaid beneficiaries tended to have lower understanding than privately insured persons.” (Internet, June 1996).

A survey was conducted by the Kaiser Family Foundation, AHCPR, and Princeton Survey Research Associates to determine the role of quality information in Americans’ health care choices. The survey of a nationally representative sample of 2,006 adults was conducted between July 26 and September 5, 1996. The following cues and criteria were most important to the respondents in choosing a health plan:
Personal recommendations from their doctors (59%)

Personal recommendations from family members and friends (57%).

Quality of care (42%)

Low cost (18%)

Wide choice of doctors (17%)

Range of benefits (14%)

Sixty-nine percent (69%) of respondents regarded their family and friends as 'good' sources of information about health plans because they share common concerns. Employers, on the other hand, were seen less favorably. Nearly six out of ten (58%) said employers are not a good resource because they felt employers could not be trusted to provide reliable information about the quality of different health plans.

The Kaiser/AHCPR/Princeton study found that personal experience and recommendation was more important to the respondents in making health care decisions than information concerning quality. Seventy-six percent (76%) of respondents indicated they would choose to be treated by a surgeon they know even if another unknown surgeon was rated much higher in quality by experts. If they had to choose
between two health plans, 52% said they would select the one strongly recommended by their friends and family over one rated much higher by independent organizations that evaluate plans.

In choosing a new physician, the following choice cues and criteria were reported:

- Friends and family (51%)
- Referral from current physician (57%)
- Doctor communicates well and shows a caring attitude (84%)
- Board certification (71%)
- Rating of doctor by an independent organization (25%)

The lack of value placed by respondents on quality information produced by independent organizations could reflect the respondents' lack of familiarity with such information: only two out of five (39%) said they had seen quality comparisons within the last year. While most of those who had seen these comparisons said they thought it would be useful for someone trying to make a decision about health plans (87%), doctors (86%), and hospitals (83%), far fewer had actually ever used the information in their own
decision making (34% in choosing health plans; 35%, doctors; and 30%, hospitals). In fact, even those who had seen quality comparisons were more likely to choose the provider they were more familiar with when presented with a choice between a health plan, doctor, or hospital they know or one rated much higher by the experts. In addition, they, like respondents to prior studies, also said they rely most heavily on the recommendations of friends and family and their personal physician over that of the experts. Almost half (45%) of respondents with employer-based coverage were offered only one health plan through their work. Thus they would be less interested in comparative information. Forty-six percent (46%) of respondents with a choice of two or more plans who had seen quality comparisons were likely to use the information they saw in selecting a health plan.

The study indicated that a majority of respondents considered specific information about quality of care as important when choosing a health plan. The subjects indicated that the indicators of health plan quality were as follows:

- Ease of access to specialists (68%)
• Range of benefits offered (66%)

• The percentage of doctors who have had a complaint filed against them by patients (64%)

• The percentage of plan members who get regular preventive health care screenings (62%)

• The percentage of members who change plans because they are dissatisfied (61%)

• How patients rate their plan's doctors (58%)

• How patients rate the overall quality of their health care plan (57%)

Patient satisfaction surveys were one of the sources of information on quality of health plans that respondents found most influential after their regular doctor, and friends and family (45%) (Internet, September 5, 1996).

AHCPR is supporting a significant initiative to assist consumers in selecting quality health care plans and services. The project, entitled Consumer Assessments of Health Plans Study (CAHPS), consists of cooperative agreements over five years with three consortia headed by Research Triangle Institute, the RAND Corporation and Harvard University. The goals of the CAHPS study are to
develop and test questionnaires that assess health plans and services, to produce easily understandable reports for communicating survey information to consumers, and to evaluate the usefulness of these reports for consumers in selecting health care plans and services.

CAHPS differs from other efforts at consumer assessment of health plans. Rather than limiting the survey instrument to assessment of consumer satisfaction with plans, surveys developed under CAHPS will ask consumers about additional areas of importance to them, including access to care, use of plan services, and their rating of the quality of care they received and the outcomes of that care.

According to Robert M. Krughoff, president of the Center for the Study of Services/Consumers Checkbook Magazine, "Consumers who are trying to choose health plans that best meet their needs want to know--and need to know--about current plans members' experience with the plans. We expect the CAHPS effort will produce a high-quality, broadly accepted set of questionnaires and ways of reporting results--enabling consumers to compare plans on a uniform footing nationwide."
Each survey item to be developed under CAHPS will be based on several fundamental questions, including: "How will this information help consumers spend their health care dollars more effectively?" and "How will this empower consumers to choose high-quality plans at a cost and coverage level appropriate for their budgets and families?"

The project also will help managed care organizations with their efforts to provide high-quality care (Internet, February, 1996).

According to Michael Hays, president of National Research Corporation, a health care market research and performance assessment company based in Lincoln, Nebraska, employers and employees have gravitated toward measures of member and patient satisfaction. "These measures are a little more tangible and understandable than clinical measures," states Hays (Fromberg 1997 p. 8).

Hays and other experts suggest that satisfaction measures should include overall satisfaction and a number of more specific measures, among them:

- **Access**, including number of days until an appointment, wait time in a physician’s office, ability to get a
referral to a specialist, accessibility of physicians' offices, and return of phone calls.

- **Communication**, including a provider's willingness to answer questions and ability to discuss healthcare in an understandable way.

- **Administration**, including satisfaction with problem resolution and availability of information about coverage and cost (Fromberg 1997 p. 8).
CHAPTER III

RESEARCH METHOD

Research Design

The purpose of this study was to identify the data concerning primary care physicians (PCPs) that should be made available to managed health care consumers at the point of PCP selection. If consumers are provided this data, they will be able to make more informed health care provider choices within the choice constraints of managed care.

The study was based on applied, descriptive research specifically designed to answer the question, "What information items will consumers consider most useful in selecting a PCP from a health plan provider directory?" To answer this question, a list of information items about physicians was presented in the form of a survey. The information items were obtained from physician-choice criteria indicated as most often used by consumers in previous research and from the managed care quality standards as defined by the National Committee for Quality Assurance.
Research Method

Subjects: The subjects of this study were the 992 employees of California State University San Bernardino who receive health insurance benefits through their employer. These subjects were chosen because the employees of CSUSB were believed to be a representative sample of commercial health plan consumers, in that they comprise lesser paid staff from janitors and gardeners to more highly paid administration and faculty. In addition, because of the hiring policies of CSUSB, a representative mix of ethnic groups, gender and age groups was expected.

Data collection instrument: A written questionnaire was sent to the subjects through inter-campus mail. The questionnaire listed information items about physicians which are not typically included in a provider directory (e.g. information in addition to physician name, title, specialty, practice address, phone, hours of operation, admitting hospital, and medical group/IPA). Subjects were asked to rate each information item from “very useful” to “not at all useful” on a scale of one to four, with one
being "very useful" and four being "not at all useful."
Subjects were also asked to rank the five most important
information items. The items were based on criteria
generated from the literature and on the HEDIS performance
measures. Given the agreement among the various studies as
to which physician-choice criteria were important to
consumers, the researcher did not consider it necessary to
conduct a pretest. Subjects were asked to rate the
usefulness of the following physician information items:

- **Patient satisfaction ratings on physician interpersonal
  skills** (Courteous; good listener and communicator;
caring; time/explanation given). This information item
  was chosen because interpersonal characteristics have
  been consistently listed in previous research as among
  the top physician-choice criteria (Hanna, Schoenbachler
  and Gordon 1994; Stewart et. al. 1989; Hoerger and
  Howard 1995; Hill and Garner 1991; Crane and Lynch
  1988; Hickson et. al. 1988). Two additional
  information items were included in the survey which
  were especially concerned with the physician's ability
to communicate effectively: **Country of origin**, and
Non-English languages spoken. These items were included because a significant number of residents in the geographical area in which the survey was conducted are first generation immigrants.

- **Patient satisfaction ratings on quality of care received.** This item has also been listed in the research as being a top physician-choice criteria (Crane and Lynch 1988; Hickson et. al. 1988, Hill and Garner 1991). Quality of care was listed as the biggest concern for respondents in the recent national survey designed by the Kaiser Family Foundation, AHCPR, and Princeton Survey Research Associates (Internet September 5, 1996).

- **Patient satisfaction ratings on access** (Ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours). Access was an additional issue listed in the research as being important to consumers (Leventhal 1995; Hanna, Schoenbachler and Gordon 1994; Stewart et. al. 1989; Hoerger and Howard 1995; Crane and Lynch 1988; Hickson et. al. 1988; Hill and Garner 1991).
• **Patient satisfaction with helpfulness of office staff in assisting patient through the managed care process.** This item appeared in physician advertising in a study by Butler and Abernethy (1996) and was suggested as important to health care consumers by the employee benefits director at California State University San Bernardino where the survey was conducted.

• **Years of experience practicing medicine; Age of physician.** Many studies cited experience and/or age as an important selection criteria (Crane and Lynch 1988; Hickson et. al. 1988; Leventhal 1995; Butler and Abernethy 1996, Stewart et. al. 1989; Hoerger and Howard 1995).

• **Medical education and training.** This item was also cited as important to consumers in selecting a physician (Butler and Abernethy 1996; Leventhal 1995; Stewart et. al. 1989; Hoerger and Howard 1995; Hickson et. al. 1988).

• **Credentials, board-certification.** The physician’s credentials and board-certification were cited by the literature as being important search criteria to
consumers (Butler and Abernethy 1996; Leventhal 1995; Internet September 5, 1996; Stewart et. al. 1989; Hoerger and Howard 1995).

- **Professional memberships.** While professional memberships may fall under the category of "formal qualifications" (Stewart et. al. 1989), this item was listed separately because these memberships have been frequently listed in physician advertising material, and because professional membership information was cited by Butler and Abernethy (1996) as an item desired by consumers in physician advertising.

- **Photo of physician.** A photo or the appearance of the physician was indicated as important to consumers in two studies (Butler and Abernethy 1996; Crane and Lynch 1988).

- **Gender of the physician.** This was cited as a criteria used in selection of physicians by Crane and Lynch (1988) and Stewart et. al. (1989). The latter study found that physician gender was considered to be a very important factor in selecting a PCP for one's self and for one's child.
The remaining attributes were selected because they were included in the HEDIS 2.0/2.5 performance measures which were formulated by the National Committee on Quality Assurance to help employers evaluate health plans. While the HEDIS measures apply specifically to health plans, those measures of health plan performance in the delivery of health care services, patient access to health care and patient satisfaction with care could also apply to individual physicians. The following information items were extrapolated from the HEDIS measures as being applicable to individual physicians:

- How the physician’s practice of preventive medicine compares to the national average
- How the physician’s management of acute and chronic disease compares to the national average
- How the physician’s prenatal care compares to the national average
- How the physician’s management of mental health compares to the national average
• How the physician compares to the national average in terms of average turn-around time for authorization of referral requests.
• How the physician compares to the national average in terms of the percentage of patients who disenrolled with the physician in the past year.
• Health plan’s overall rating of the physician’s office based on the following criteria:
  • Convenient location, Clearly marked office signs, Adequate parking
  • Handicapped parking area and ramp for access, Restrooms handicapped equipped
  • Facility is clean and well maintained, Adequate waiting room seating, comfortable, relaxing environment

Data collection: The survey was administered in October, 1996, during the period of “open enrollment” at the university. The survey was returned to the researcher via inter-campus mail. A paragraph at the beginning of the survey explained the purpose of the survey, that responses are anonymous, and that subjects could decline to
participate. Respondents were provided a confidential, self-addressed envelope in which to return the survey.

Data analysis: Descriptive statistics such as frequencies, percentages and means were used to analyze the ranking of the information items and the other data. Cross-tabulation was used to study the relationship of the various demographic data to the pattern of selection of the five most highly valued information items.
CHAPTER IV

RESULTS

Description of Sample

A total of 313 out of 992 California State University San Bernardino (CSUSB) employees completed and returned the survey instrument (32% response). The age of the respondents ranged from 21 years of age to age 70. Eighty-five percent (85%) of the respondents were between 31 and 60 years of age. Ten percent (10%) were age 30 or under and 5% were over age 60. When arranged in 10-year intervals, the 41-50 age interval had the largest number of respondents (39%).

Figure 1. Pie chart depicting percentages of respondents in each age category.
Out of the 309 respondents reporting gender, 118 (38.2%) were male and 191 (61.8%) were female. The gender distribution of the employee population of CSUSB at the time of the survey was 48.3% male and 51.7% female. Thus, females were more likely to return the survey than males. Figure 2 illustrates the relative distribution of gender for both the sample and the entire employee population of CSUSB:

![Figure 2](image)

**Figure 2.** Histogram showing percentages of male and female respondents and comparing gender of respondents with CSUSB employee population.

The breakdown of the 307 respondents who described their ethnicity was as follows (See Figure 3):

White/Caucasian, 70%; Black/African-American, 10%; Hispanic, 11%; Asian, 6%; Native American or Alaskan Native, 1%; Other, 3%.
The self-described ethnicity of the respondents was very similar to that of the CSUSB employee population (See Figure 4). The percentage of CSUSB employees in each of these ethnic groups at the time of the survey was as follows: White/Caucasion, 67%; Black/African-American, 11%; Hispanic, 14%; Asian, 4%; Other, 93%.
The marital status of the 310 respondents who answered this question was reported as 63% married; 19% single, 15% divorced, and 3% other.

Figure 4. Histogram comparing the ethnicity of respondents with CSUSB employee population.

Figure 5. Pie chart depicting percentages of respondents in each marital category.
The distribution of annual income level among the 301 reporting respondents was as follows: 32% had an annual income of $40,001 - $60,000; 31% had an income greater than $60,000; 19% made $20,000 - $30,000; 17% from $30,001 to $40,000; and 1% made less than $20,000.

Figure 6. Pie chart depicting percentages of respondents in each income range.

Of the 307 respondents reporting educational level, 3% were high school graduates or less; 26% had some college; 9% were college graduates; 7% had received some post-graduate training; 15% had completed a Masters degree; and 41% had received a doctoral education.
Figure 7. Histogram showing percentages of respondents in each educational level.

Respondents were asked how many dependents (besides themselves) were covered by their health insurance. The majority (86%) had none or one dependent over the age of sixteen. Sixty-five percent (65%) reported no dependents under the age of sixteen, while (35%) had one or more dependents under the age of sixteen.
Physician Usage and Choice Characteristics of Sample

Respondents were asked how many times during the past year they had visited a physician's office, visited a dentist, received eye care, and/or had surgery. Ninety-five percent (95%) had visited a physician one or more times, and 70% had visited a dentist one or two times. Seventy-three percent (73%) had received eye care one or two times during the past year, and 86% had not had surgery during the past year.
Figure 9. Histogram showing percentages of respondents who had made a physician office visit during the past year and the number of visits.

Respondents were asked when was the last time they had chosen a new primary care physician (PCP) and the reason for change. Of the 303 people who responded to this question, 32% had chosen a new PCP in the past two years, while 68% had not changed physicians for two or more years.
Of the 275 people who gave a reason for changing physicians, the reasons indicated were as follows:

<table>
<thead>
<tr>
<th>Reason for change</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent moved to new location</td>
<td>36%</td>
</tr>
<tr>
<td>Change of health insurance plan</td>
<td>21%</td>
</tr>
<tr>
<td>Respondent was dissatisfied with quality of care</td>
<td>18%</td>
</tr>
<tr>
<td>Respondent was dissatisfied with PCP's interpersonal skills</td>
<td>15%</td>
</tr>
<tr>
<td>Physician moved or retired</td>
<td>15%</td>
</tr>
<tr>
<td>Respondent was unable to access PCP within a reasonable time</td>
<td>9%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 1. Reasons respondents had changed physicians.
If the respondent had chosen a physician from a provider directory in the past, they were asked to indicate how adequate the information about each physician was found to be which was provided in the directory. Of the 160 responses 7% found the information to be very adequate; 13% somewhat adequate; 19% adequate; 24% somewhat inadequate; and 37% very inadequate. In general, those who thought the information was adequate totaled 39%, and 61% thought it was inadequate.

Figure 11. Histogram showing respondents’ rating of adequacy of provider directory information.
Ranking of Physician Information Items

To assess the information items consumers would consider most useful in selecting a primary care physician from a health plan directory, respondents were asked to assume they had been asked to choose a primary care physician from a list of unfamiliar physicians in a managed care provider directory. They were instructed that the directory listed the following information items for each physician: physician name, title, specialty, practice address, phone, hours of operation, admitting hospital, and medical group/IPA. Respondents were then asked to indicate the degree they would consider a list of additional information items to be useful in choosing a primary care physician from a managed care provider directory. The scale was from one to four, with one for very useful and four for not at all useful information. The following table shows the mean score ranking for each information item.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mean</th>
<th>Item #</th>
<th>Physician Information Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.31</td>
<td>5</td>
<td>Patient satisfaction ratings on quality of care received</td>
</tr>
<tr>
<td>2</td>
<td>1.34</td>
<td>17</td>
<td>Patient satisfaction ratings on access (Ease in getting appointment; length</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1.41</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1.45</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1.47</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1.52</td>
<td>16c</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1.58</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1.64</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>1.78</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1.80</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>1.84</td>
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<td>12</td>
<td>1.95</td>
<td>16a</td>
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<tr>
<td>13</td>
<td>1.98</td>
<td>19</td>
<td></td>
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<tr>
<td>14</td>
<td>2.18</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>2.24</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

of wait in office, telephone access to provider, convenient office hours)

Patient satisfaction ratings on interpersonal skills (Courteous; good listener and communicator; caring; time/explanation given)

Medical education and training

Credentials, board certification

Health plan's overall rating of the physician's office (Clean and well maintained, adequate waiting room seating, comfortable, relaxing environment)

Patient satisfaction ratings on helpfulness of office staff in assisting patient through the managed care process

Years of experience practicing medicine

How the physician compares to the national average in terms of the percentage of patients who disenrolled with the physician in the past year

How the physician's practice of preventive medicine compares to the national average

How the physician's management of acute and chronic disease compares to the national average

Health plan's overall rating of the physician's office (Convenient location, clearly marked office signs, adequate parking)

How the physician compares to the national average in terms of average turn-around time for authorization of referral requests

Country from which physician graduated from medical school

How the physician's management of mental health compares to the national
Another manner utilized in uncovering useful information was to collapse scores "1" and "2" ("useful") and scores "3" and "4" ("not useful"); and rank the items according to the frequency of collapsed votes for scores "1" and "2." The results were as follows:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Count</th>
<th>% of responses*</th>
<th>Item #</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>294</td>
<td>6.4</td>
<td>17</td>
<td>Patient satisfaction ratings on access (Ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours)</td>
</tr>
<tr>
<td>2</td>
<td>289</td>
<td>6.3</td>
<td>5</td>
<td>Patient satisfaction ratings on quality of care received</td>
</tr>
<tr>
<td>3-Tie</td>
<td>282</td>
<td>6.1</td>
<td>11</td>
<td>Patient satisfaction</td>
</tr>
</tbody>
</table>

Table 2. Mean scores and ranking of various physician information items.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Score</th>
<th>Rating</th>
<th>ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Tie</td>
<td>282</td>
<td>6.1</td>
<td>16c</td>
</tr>
<tr>
<td>4</td>
<td>281</td>
<td>6.1</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>277</td>
<td>6.0</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>273</td>
<td>5.9</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>268</td>
<td>5.8</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>249</td>
<td>5.4</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>242</td>
<td>5.3</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>239</td>
<td>5.2</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>231</td>
<td>5.0</td>
<td>16a</td>
</tr>
</tbody>
</table>

**ratings on interpersonal skills (Courteous; good listener and communicator; caring; time/explanation given)**

**Health plan’s overall rating of the physician’s office** (Clean and well maintained, adequate waiting room seating, comfortable, relaxing environment)

**Medical education and training**

**Patient satisfaction ratings on helpfulness of office staff in assisting patient through the managed care process**

**Credentials, board certification**

**Years of experience practicing medicine**

**How the physician compares to the national average in terms of the percentage of patients who disenrolled with the physician in the past year**

**How the physician’s practice of preventive medicine compares to the national average**

**How the physician’s management of acute and chronic disease compares to the national average**

**Health plan’s overall**
<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>226</td>
<td>4.9</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>196</td>
<td>4.3</td>
<td>18</td>
</tr>
<tr>
<td>14</td>
<td>187</td>
<td>4.1</td>
<td>12</td>
</tr>
<tr>
<td>15</td>
<td>152</td>
<td>3.3</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>140</td>
<td>3.0</td>
<td>15</td>
</tr>
<tr>
<td>17</td>
<td>132</td>
<td>2.9</td>
<td>13</td>
</tr>
<tr>
<td>18</td>
<td>121</td>
<td>2.6</td>
<td>16b</td>
</tr>
<tr>
<td>19</td>
<td>117</td>
<td>2.5</td>
<td>3</td>
</tr>
<tr>
<td>20</td>
<td>79</td>
<td>1.7</td>
<td>4</td>
</tr>
<tr>
<td>21</td>
<td>50</td>
<td>1.1</td>
<td>7</td>
</tr>
</tbody>
</table>

rating of the physician's office (Convenient location, clearly marked office signs, adequate parking)

12 226 4.9 19 How the physician compares to the national average in terms of average turn-around time for authorization of referral requests

13 196 4.3 18 Country from which physician graduated from medical school

14 187 4.1 12 How the physician's management of mental health compares to the national average

15 152 3.3 10 How the physician's prenatal care compares to the national average

16 140 3.0 15 Gender of physician

17 132 2.9 13 Age of physician

18 121 2.6 16b Health plan's overall rating of the physician's office based on handicapped access

19 117 2.5 3 Professional memberships

20 79 1.7 4 Photo of physician

21 50 1.1 7 Non-English languages spoken

*Percent of responses of those who considered this item useful (scored "1" or "2")

Table 3. Ranking of collapsed scores "1" and "2" for each physician information item.
A comparison of the ranking of physician information items by mean scores with ranking by number of "votes" for collapsed scores "1" and "2" reveals that quality of care was ranked first in the mean scores and second in the collapsed scores. Access was rated second in the mean scores and first in the collapsed scores. Rating of the doctor's office (Item 16c) ranked fourth in the collapsed scores and sixth in the mean scores. Credentials/board certification ranked fifth in the mean scores and seventh in the collapsed scores. The other items ranked identical or within one ranking level (See Appendix B, Table 9).

Respondents were given the opportunity to list other items they would consider most useful in selecting a PCP. The most frequent responses were as follows:

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Recommendations from friends, family, physician</td>
</tr>
<tr>
<td>6</td>
<td>Negative databank content (i.e malpractice suits, disciplinary actions, grievances)</td>
</tr>
<tr>
<td>5</td>
<td>Use of alternative healing methods</td>
</tr>
<tr>
<td>4</td>
<td>Up-to-date on CME</td>
</tr>
</tbody>
</table>

Table 4. Other items listed by respondents as most useful in selecting a PCP.
A third method utilized in uncovering useful information was to ask respondents to rank the most useful criteria. When asked to select the five most important information items from the physician information items (Numbers 1 - 21) listed in the survey, based on number of "votes," the five most useful items as listed by respondents were as follows:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Count</th>
<th>Item #</th>
<th>% of responses</th>
<th>Physician Information Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>173</td>
<td>5</td>
<td>12.4</td>
<td>Patient satisfaction ratings on quality of care received</td>
</tr>
<tr>
<td>2</td>
<td>165</td>
<td>11</td>
<td>11.8</td>
<td>Patient satisfaction ratings on interpersonal skills (Courteous; good listener and communicator; caring; time/explanation given)</td>
</tr>
<tr>
<td>3</td>
<td>150</td>
<td>9</td>
<td>10.7</td>
<td>Medical education and training</td>
</tr>
<tr>
<td>4</td>
<td>128</td>
<td>17</td>
<td>9.2</td>
<td>Patient satisfaction ratings on access (Ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours)</td>
</tr>
<tr>
<td>5</td>
<td>111</td>
<td>20</td>
<td>7.9</td>
<td>Credentials, board certification</td>
</tr>
</tbody>
</table>

Table 5. Ranking of respondents' choice of five most useful physician information items.
Cross-Tabulation by Demographic Sub-Categories

To assess whether various demographic groups would value various information items differently than the overall sample, cross-tabulations were performed for the demographic variables of gender, income level, education level, age and length of time since last choosing a new PCP (See Appendix B).

When cross-tabulated with the self-rank question in the survey, the most or second-most important item chosen by the demographic sub-categories of gender, income level, education level and age was either “patient satisfaction ratings on quality of care received” or “patient satisfaction ratings on interpersonal skills.” Blacks, Asians, and those under age 40, differed from their respective sub-categories and listed “medical education and training” as most important than patient satisfaction. The Hispanics listed access issues as second most important, while the other demographic groups listed either “quality of care” or “interpersonal skills” second. Major exceptions to the third most important item self-ranked, overall, which was “medical education and training,” were the college group
who chose access issues, the Blacks who chose credentials/board certification; and the Asians who chose “years of experience practicing medicine.” Major differences in the fourth most important item were among the college group who chose “health plan’s overall rating of the physician’s office,” and the Hispanics who chose “years of experience practicing medicine.” Item of fifth importance was consistently listed as either “credentials/board certification” or “years of experience practicing medicine” with the exception of the Hispanics who chose “health plan’s overall rating of the physician’s office,” and the Asians who chose access issues (See Appendix B Table 10).

When cross-tabulated with the collapsed scores of “1” and “2” (useful) in the survey, the most important item chosen by the demographic sub-categories of gender and length of time since choosing a new PCP was “Patient satisfaction ratings on access.” The second most important item was “Patient satisfaction ratings on quality of care received.”

Following is a more detailed report of results of the cross-tabulations by demographic category:
**Gender**

The responses of males versus females were cross-tabulated with answers to the question asking for the five most useful physician information items. Males listed the top five items differently only in the fifth most important item, choosing years of experience as fifth most important rather than credentials/board certification. Females switched the importance of the first two items, listing interpersonal skills as most important, and quality of care as second most important.

The responses of males versus females were also cross-tabulated with the results of combining and ranking scores of "1" and "2" (useful), revealing that males placed less value (seventh place) on medical education and training than females (third place.)

**Annual Income**

Annual income was also cross-tabulated with the question concerning the five most important items. The following table lists the order of the five most important
items as chosen by the respondents overall in the first column. The other columns list the order as chosen by respondents in various income categories.

<table>
<thead>
<tr>
<th>Overall</th>
<th>$20-30,000</th>
<th>$30-40,000</th>
<th>$40-60,000</th>
<th>Above $60,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of care</td>
<td>Interpersonal skills</td>
<td>Quality of care</td>
<td>Quality of care</td>
<td>Quality of care</td>
</tr>
<tr>
<td>2. Interpersonal skills</td>
<td>Education/training</td>
<td>Education/training</td>
<td>Interpersonal skills</td>
<td>Interpersonal skills</td>
</tr>
<tr>
<td>3. Education/training</td>
<td>Quality of care</td>
<td>Interpersonal skills</td>
<td>Education/training</td>
<td>Education/training</td>
</tr>
<tr>
<td>5. Credential</td>
<td>Credential</td>
<td>Office</td>
<td>Experience</td>
<td>Credentials</td>
</tr>
</tbody>
</table>

Table 6. Results of cross-tabulation of annual income with overall self-ranking of physician information items.

For those in the lowest income bracket, quality of care was not as important as interpersonal skills and medical education and training. Item Number 16 concerning overall rating of the physician's office was one of the five most useful items only to those in the $30,000 - $40,000 bracket. Those in the $40,000 - $60,000 bracket rated years of experience as fifth rather than credentials/board certification. The top five choices of those in the top
income bracket ($60,000+) corresponded to the over-all top five choices.

**Level of Education**

Educational level was also cross-tabulated with the question concerning the five most important items. The following table lists the order of the five most important items as chosen by the respondents overall in the first column. The other columns list the order as chosen by respondents with various levels of education.

<table>
<thead>
<tr>
<th>Overall</th>
<th>High School</th>
<th>College</th>
<th>Masters</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of care</td>
<td>Interpers. skills</td>
<td>Interpers. skills</td>
<td>Quality of care</td>
<td>Quality of care</td>
</tr>
<tr>
<td>2. Interpers. skills</td>
<td>Experience</td>
<td>Quality of care</td>
<td>Education/training</td>
<td>Interpers. skills</td>
</tr>
<tr>
<td>3. Education/training</td>
<td>Quality of care</td>
<td>Access</td>
<td>Interpers. skills</td>
<td>Education/training</td>
</tr>
<tr>
<td>4. Access</td>
<td>Education/training</td>
<td>Office</td>
<td>Access</td>
<td>Access</td>
</tr>
<tr>
<td>5. Credential</td>
<td>Access</td>
<td>Experience</td>
<td>Credential</td>
<td>Credentials</td>
</tr>
</tbody>
</table>

Table 7. Results of cross-tabulation of level of education with overall self ranking of physician information items.
Interpersonal skills and years of experience were more important for those with a high school education than for the overall sample. College-educated valued the physician's office and years of experience higher than the overall sample. Those with higher education most closely resembled the overall scores.

**Ethnicity**

Ethnicity was finally cross-tabulated with the question concerning the five most important items. The following table lists the order of the five most important items as chosen by the respondents overall in the first column. The other columns list the order as chosen by respondents of various ethnic backgrounds.

<table>
<thead>
<tr>
<th>Overall</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Quality of care</td>
<td>Quality of care</td>
<td>Education/ training</td>
<td>Interpers. skills</td>
<td>Education/ training</td>
</tr>
<tr>
<td>2. Interpers. skills</td>
<td>Interpers. skills</td>
<td>Quality of care</td>
<td>Access</td>
<td>Quality of care</td>
</tr>
<tr>
<td>3. Education/ training</td>
<td>Education/ training</td>
<td>Credential</td>
<td>Quality of care</td>
<td>Experience</td>
</tr>
<tr>
<td>4. Access</td>
<td>Access</td>
<td>Interpers. skills</td>
<td>Experience</td>
<td>Interpers. skills</td>
</tr>
<tr>
<td>5. Credentials</td>
<td>Credential</td>
<td>Experience</td>
<td>Office</td>
<td>Access</td>
</tr>
</tbody>
</table>
Table 8. Results of cross-tabulation of ethnicity with overall self-ranking of physician information items.

Black respondents rated medical education/training and years of experience higher, and interpersonal skills lower than the overall sample. Hispanics valued interpersonal skills highest, followed by physician access. They also valued years of experience and overall rating of the physician's office more highly than the overall sample. The Asian's response was not significantly different from the overall sample response.

The responses of those who had last chosen a new PCP in the past two years (Group A) and those who had last chosen a new PCP more than two years ago (Group B) were cross tabulated with the collapsed scores "1" and "2" (useful). Group A considered interpersonal skills more important (third place) than Group B (fifth place). Group A also considered helpfulness of the office staff in assisting with the managed care process more important than Group B (fourth versus sixth place). Group B scored the physician’s office rating more highly (third place) than Group A (fifth place),
as well as medical education and training (fourth versus seventh place).
CHAPTER V
DISCUSSION

Principal Findings

This study provides information on what data should be made available to health care consumers about primary care physicians (PCPs) at the point of selection so that consumers can make informed health care provider choices within the choice constraints of managed care. The research suggests that the information items most valued by consumers are patient satisfaction ratings on quality of care and on access to care (i.e. ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours).

Other information items most useful to consumers are indicated by the research as follows:

- Patient satisfaction ratings on interpersonal skills (Courteous; good listener and communicator; caring; time/explanation given)
- Medical education and training
- Credentials, board certification
• Health plan's overall rating of the physician's office
  (Clean and well maintained, adequate waiting room
  seating, comfortable, relaxing environment)
• Patient satisfaction ratings on helpfulness of office
  staff in assisting patient through the managed care
  process
• Years of experience practicing medicine

  A majority of the respondents (66%) indicated that
  these items would be most useful to them in selecting a PCP.
  The HEDIS criteria, comparing the physician's quality of
  care to the national average, were valued next most useful
  to the above items, ranking higher than items concerned with
  physician ethnicity, age, gender, professional memberships
  and handicapped access.

  One-hundred sixty (160) respondents answered the
  question, "If you have chosen a physician from a provider
  directory, please indicate how adequate was the information
  provided in the directory about each physician." Sixty-five
  percent (65%) of these were dissatisfied with the adequacy
  of information about individual physicians in their health
  plan directory.
The analysis of the variance in top information items among different demographic groups found that, in comparison to the overall sample, respondents who were female, Hispanic, those with the lowest income level, and those with less education were more concerned with interpersonal skills than with quality of care.

Other findings from this analysis are as follows:

1. Males and those in the $40,000 - $60,000 income range placed a higher value on the physician's years of experience than the overall sample.

2. Males placed less value on medical education and training than females.

3. Those with a college education were more concerned with the physician's office and his years of experience than the overall sample.

4. Those who had chosen a new PCP within the last two years were more concerned with interpersonal skills and helpfulness of the office staff in assisting with the managed care process and were less concerned with the rating of the physician's office and medical
education/training than those who had chosen a new PCP more than two years ago.

5. Blacks valued medical education/training and years of experience more highly, with less value placed on with interpersonal skills than the overall sample.

6. Hispanics placed more importance on physician access than other groups. They were also more concerned with the physician's years of experience and the overall rating of the physician's office more than the sample as a whole.

Comparison with Findings in Related Studies

In support of previous findings in which "interpersonal skills" (courteous, good listener, caring, time/explanation given), "competence," and "access/availability" were the criteria most frequently ranked as important, these items were ranked among the top five information items that were chosen by the respondents.

The findings of past studies that reported the information consumers wanted and valued most in medical advertisements (excluding the information that is typically
listed in a health plan directory), in which "references," "years of experience", and "professional qualifications" were most desired, was supported by the respondents’ choice of information items dealing with patient satisfaction ratings, years of experience practicing medicine, medical education/training, and credentials/board certification as being among the eight most useful information items.

The HEDIS criteria, comparing the physician’s objectively measured quality of care to the national average, did not rank among the eight most important information items. This is in keeping with the suggestion by governmental quality agencies that consumers need to be educated as to the importance of these criteria.

Interpretation ofResults/Findings

The findings from this exploratory study provide support for the importance of patient satisfaction ratings and physician qualifications to consumers in selecting a primary care physician. The research indicates that most managed care consumers are dissatisfied with the adequacy of physician information in provider directories, which provide
no information on patient satisfaction, and very limited information (usually only the physician’s specialty, sometimes board certification) regarding physician qualifications. While the physician’s qualifications may be available to consumers who are willing to do some research, the individual physician results of patient satisfaction surveys which are conducted by health plans and physician groups are not available to the general public. The findings of this study suggest that these results should be made available to consumers.

In addition, the findings suggest that consumers should be educated as to the value of using objective criteria such as the HEDIS performance data in judging physician quality.

It was assumed that the sample would be representative of the general population of commercial health plan consumers. While the ethnic mix of the sample was representative of the general demographics of the area, the sample was highly represented by persons with doctoral levels and by those with an income range of $40,000 and above. (Most of the faculty have doctoral degrees, and perhaps the higher rate of return among this group was
because they have also done research and realize the importance of filling out and returning the survey.

There was a surprising lack of importance placed on the referral process. Item Number 19, "How the physician compares to the national average in terms of average turn-around time for authorization of referral requests," was ranked 13th in usefulness by the sample. The ability to be referred to a specialist when necessary is a concern voiced frequently by managed care consumers. The low rating of this item could have been due to two factors: (1) The item should have been worded "... authorization of requests for referral to physician specialists." (2) Based on the response to Question 26 of the survey, only about half of the respondents may have participated in an HMO managed care plan where specialists can only be accessed through the referral process.

The fact that the physician's ability to speak a non-English language was the least highly-valued information item was likely due to the high proportion of English-speaking respondents. It is likely that the ability to speak English is a requisite to being hired by the
University. In actuality, there are a significant number of people in major market areas such as Southern California who speak a foreign language (i.e. Spanish) and who likely would have scored this item much higher than the sample.

**Implications of the Study**

This study indicates the need for managed care health plans, particularly HMOs, to make information readily available to consumers regarding patient satisfaction ratings, training and credentials of individual physicians during the enrollment process. This would make patient satisfaction issues as critical as when word-of-mouth was the primary source of information about physicians in the fee-for-service setting. Physicians would need to take the time and effort to ensure that most, if not all, patients receiving treatment would leave the office satisfied.

The findings implicate the need to educate consumers on understanding objective, clinically based measures of physician quality if indeed, as government experts indicate, there is a need for consumers to base their judgments of
physician quality more on such objective criteria and less on subjective patient satisfaction ratings.

The problem of lack of space in health plan directories needs to be addressed by the health plans. The study indicates a need for the directory to cover a smaller geographic territory, so that more space can be devoted to giving more detailed information about each individual physician available through the health plan in that area.

Medical groups who are wishing to attract new patients could provide information concerning patient satisfaction, training and credentials of the physicians whom they are marketing in their advertising and marketing materials. This would again necessitate that patients receiving treatment would indicate on patient satisfaction surveys that they were satisfied with the quality of care received, the physician's interpersonal skills, and with their ease of access to the physician.

When targeting markets of females, Hispanics, those with the lower income level, and those with less education, physician advertising should emphasize the physician's interpersonal skills (courtesy, good listener and
communicator, caring, time/explanation given.) These skills should also be highly developed in physicians seeking to develop a practice among any of these markets.

Young physicians who are new to practice should target their advertising more to the demographic sub-categories who place less value on a physician's years of experience practicing medicine: females, whites and Asians, and those in the upper and lower extremes of educational and income levels. Experienced physicians should consider targeting males, blacks, Hispanics, the college-educated and those in the $40,000 - $60,000 income bracket.

Physicians wishing to target the Hispanic market should pay close attention to not only their interpersonal skills but also to access issues (ease in getting an appointment, telephone availability, short office wait times, convenient office hours).

By making available to consumers the information this research has demonstrated as most useful, consumers will be able to make more intelligent, informed provider choices within the choice constraints of managed care. As a result, there would be less patient turnover and accompanying
administrative demands. Those physician groups who utilize
this information in their advertising should see an increase
in patient enrollment. Most importantly, consumers' health
status should improve because of their ability to do
intelligent comparison shopping among physicians.

Recommendations for Future Research

This study provides important insights for health plans
and for physician groups in an increasingly competitive
market, and suggests several avenues for future research.
The study was designed to be exploratory in nature, and
further confirming evidence is needed based on a sample that
is more representative of the general population to support
the findings.

Further research must devote attention to ways of
maintaining patient satisfaction within the managed care
process. In addition, research must be done on ways of
educating consumers to rely more on objective, clinically
based measures rather than on subjective patient
satisfaction ratings of quality. Additional research needs
to be done to develop ways of teaching consumers about the meaning of objective quality indicators.

Conclusion

Because of the financial risk now assumed by providers of health care, concern for quality has created an increased need for consumers to make intelligent, informed health care choices. Health plans and physician groups must ensure that patients can access quality care, in part, by providing more objective information to consumers about individual physician quality. This paper provides insight on the information items patients currently consider most important when choosing a primary care physician. The findings from this work, as well as future research on patient satisfaction and consumer education concerning quality of care, can enhance the responsibility taken by health plans for quality of care. The findings can also strengthen physician group marketing efforts by suggesting information strategies, targeting strategies and promotional themes for attracting and maintaining a patient base.
Health plans and physician groups operate in an increasingly complex environment. Managed care consumers who formerly relied on word-of-mouth and physician referral to choose a physician, must now select their primary care physician from a list in their health plan’s provider directory. In order to ensure quality of care, they must change from becoming passive patients to analytical consumers. Consumers must be educated to rely less on subjective ratings of quality and more on objective, clinically based measures. More objective, yet consumer-friendly information is critically needed for consumers to compare available physicians and to make one of the most potentially important, far-reaching choices affecting their life and that of their dependents.
APPENDIX A

Survey Instrument
Dear CSUSB Employee:

My name is Jan Webb. As a master's candidate at CSUSB, I would be most grateful to you for helping me with my thesis by filling out this survey. The purpose of the survey is to obtain data that will be useful to managed care health insurance and physician organizations in providing objective and consumer-friendly information about primary care physicians (usually Family Practitioners, Pediatricians and Internists) available through the organization to consumers so they can make intelligent, informed health care provider choices. All responses are anonymous and there will be no way to identify individuals. You may decline to participate. The estimated time required to complete this survey is 5 minutes or less.

Assume you have been asked to choose a primary care physician from a list of unfamiliar physicians in a managed care provider directory. The directory lists the following information items for each physician: Physician name, Title, Specialty, Practice address, Phone, Hours of operation, Admitting hospital, Medical group/IPA. Please indicate the degree you would consider the following additional information items to be useful to you in choosing a primary care physician from a managed care provider directory. Circle the number that applies, with "1" for very useful and "4" for not at all useful information.

<table>
<thead>
<tr>
<th>Very Useful</th>
<th>Not at All Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Years of experience practicing medicine</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2. How the physician's practice of preventive medicine compares to the national average</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3. Professional memberships</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4. Photo of physician</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5. Patient satisfaction with quality of care received</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6. Patient Satisfaction Ratings on helpfulness of office staff in assisting patient through the managed care process</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7. Non-English languages spoken</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8. How the physician's management of acute and chronic disease compares to the national average</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9. Medical education and training</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>10. How the physician's prenatal care compares to the national average</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>11. Patient Satisfaction Ratings on the following: Courteous; good listener and communicator; caring; time/explanation given</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>12. How the physician's management of mental health compares to the national average</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>13. Age of physician</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>14. How the physician compares to the national average in terms of the percentage of patients who disenrolled with the physician in the past year</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>15. Gender of physician</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>
16. Health plan's overall rating of the physician's office based on the following criteria:
   a) Convenient location, Clearly marked office signs, Adequate parking 1  2  3  4
   b) Handicapped parking area and ramp for access, Restrooms handicapped equipped 1  2  3  4
   c) Facility is clean and well maintained, Adequate waiting room seating, comfortable, relaxing environment 1  2  3  4

17. Patient Satisfaction Ratings on ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours 1  2  3  4

18. Country from which physician graduated from medical school 1  2  3  4

19. How the physician compares to the national average in terms of average turn-around time for authorization of referral requests 1  2  3  4

20. Credentials, board certification 1  2  3  4

21. Other information you would consider most useful in selecting a primary care physician:

22. From the list of 21 information items above, please list the five that you consider most important in selecting a primary care physician from a health plan directory.
   Item #
   Item #
   Item #
   Item #
   Item #

23. During the past year, how many times have you—
   - visited a physician's office? □ 1-2 times □ 3-4 times □ 5+ times
   - visited the dentist? □ 1-2 times □ 3-4 times □ 5+ times
   - received eye care? □ 1-2 times □ 3-4 times □ 5+ times
   - had surgery? □ 1-2 times □ 3-4 times □ 5+ times
24. When was the last time you chose a new primary care physician?

___ In the last year
___ 1-2 years ago
___ More than 2 years ago

25. Please indicate your reason(s) for changing to a new physician:

___ I moved to a new location
___ I was dissatisfied with my previous physician’s quality of care
___ I was dissatisfied with my physician’s interpersonal relationship skills
___ I was unable to make an appointment with my previous physician in a timely manner
___ Other: ____________________________________________________________

26. If you have chosen a physician from a provider directory, please indicate how adequate was the information provided in the directory about each physician.

___ Very Adequate  ___ Somewhat Adequate  ___ Adequate  ___ Somewhat inadequate  ___ Very Inadequate

How old are you? _____ years of age

What is your marital status?  ___ Single  ___ Married  ___ Divorced  ___ Other

What is your gender?  ___ Male  ___ Female

How do you describe yourself?

___ White/Caucasian  ___ Pacific Islander
___ Black/African-American  ___ Native American or Alaskan Native
___ Hispanic  ___ Other
___ Asian

Besides you, how many dependents are covered by your health insurance?

Number of dependents age 16 or over: _____
Number of dependents under age 16: _____

What is your annual income?

___ Below $20,000  ___ $20,000 - $30,000  ___ $30,001 - $40,000
___ $40,001 - $60,000  ___ Above $60,000

What is your highest level of education?

___ Less than high school  ___ High school graduate
___ Some college  ___ College graduate  ___ Some post-graduate  ___ Masters  ___ Doctoral

Thank you for your participation. Please return your completed survey as soon as possible in the enclosed confidential envelope via interdepartmental mail addressed to: Jan Webb, Department of Health Science.
Appendix B
Table 9

Differences in Ranking of Mean Scores and Ranking of Number of "Votes" for Combined Scores 1 and 2; Comparison of Combined Score (1 + 2) Ranking with Ranking of Combined Score by Gender and by Those Who Had Chosen a New PCP Within the Past Two Years and Those Who Had Chosen a New PCP More Than Two Years Ago

Listed by Physician Information Item Number

<table>
<thead>
<tr>
<th>Rank</th>
<th>Mean Scores</th>
<th>Combined Scores 1 + 2</th>
<th>Male</th>
<th>Female</th>
<th>Last chose new PCP within past 2 yrs</th>
<th>Last chose new PCP more than 2 years ago</th>
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<td>18</td>
<td>18</td>
<td>18</td>
<td>12</td>
<td>18</td>
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</tbody>
</table>
Table 10
Differences in Self-Ranking of Top Ten Physician Information Items by Various Demographic Sub-categories

| Rank | Overall | Male | Female | <$20,000 | $20-30,000 | $30-40,000 | $40-60,000 | >$60,000 | High School | Coll. | Masters | Doctor | White | Black | Hispanic | Asian | Age 40 | Age 41-49 | Age 50+
|------|---------|------|--------|----------|------------|------------|------------|----------|-------------|------|--------|--------|-------|-------|----------|------|--------|-----------|--------
| 1    | 11      | 11   | 11     | 11        | 11         | 5          | 5          | 5        | 11          | 11   | 5      | 5       | 5     | 9     | 11       | 9    | 9      | 5         | 5
| 2    | 9       | 9    | 9      | 5         | 9          | 9          | 9          | 17       | 17          | 16   | 17     | 17      | 17    | 17    | 11       | 11   | 11     | 17        | 17
| 3    | 17      | 17   | 17     | 17        | 17         | 17         | 17         | 17       | 17          | 16   | 17     | 17      | 17    | 17    | 17       | 17   | 17     | 17        | 17
| 4    | 20      | 1    | 1      | 20        | 1          | 1          | 20         | 20       | 20          | 20   | 20     | 20      | 20    | 20    | 1        | 16   | 17     | 20        | 20
| 5    | 1       | 20   | 16     | 16        | 20         | 20         | 1          | 50       | 50          | 20   | 16     | 16      | 16    | 16    | 16       | 20   | 1      | 20        | 20
| 6    | 16      | 2    | 1      | 12        | 2          | 2          | 8          | 14       | 9           | 1    | 1      | 1       | 2     | 2     | 20       | 20   | 1      | 12        | 8
| 7    | 2       | 14   | 2      | 2         | 13         | 16         | 2          | 16       | 2           | 2    | 14     | 8       | 14    | 2     | 14       | 2    | 16     | 2         | 2
| 8    | 14      | 16   | 6      | 6         | 18         | 18         | 14         | 4        | 6           | 14   | 8      | 16      | 17    | 6     | 6        | 6    | 8      | 14        | 14
| 9    | 6       | 6    | 8      | 15        | 14         | 14         | 16         | 2        | 8           | 16   | 6      | 14      | 6     | 8     | 2        | 14   | 14     | 16        | 14

Key

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<thead>
<tr>
<th>Item</th>
<th>Physician Information Item</th>
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<tbody>
<tr>
<td>#1</td>
<td>Years of experience practicing medicine</td>
</tr>
<tr>
<td>#2</td>
<td>How the physician's practice of preventive medicine compares to the national average</td>
</tr>
<tr>
<td>#3</td>
<td>Professional memberships</td>
</tr>
<tr>
<td>#4</td>
<td>Photo of physician</td>
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<td></td>
</tr>
<tr>
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<td>----------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Patient satisfaction ratings on quality of care received</td>
</tr>
<tr>
<td>6</td>
<td>Patient satisfaction ratings on helpfulness of office staff in assisting patient through the managed care process</td>
</tr>
<tr>
<td>7</td>
<td>Non-English languages spoken</td>
</tr>
<tr>
<td>8</td>
<td>How the physician's management of acute and chronic disease compares to the national average</td>
</tr>
<tr>
<td>9</td>
<td>Medical education and training</td>
</tr>
<tr>
<td>10</td>
<td>How the physician's prenatal care compares to the national average</td>
</tr>
<tr>
<td>11</td>
<td>Patient satisfaction ratings on interpersonal skills (Courteous; good listener and communicator; caring; time/explanation given)</td>
</tr>
<tr>
<td>12</td>
<td>How the physician's management of mental health compares to the national average</td>
</tr>
<tr>
<td>13</td>
<td>Age of physician</td>
</tr>
<tr>
<td>14</td>
<td>How the physician compares to the national average in terms of the percentage of patients who disenrolled with the physician in the past year</td>
</tr>
<tr>
<td>15</td>
<td>Gender of physician</td>
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<tr>
<td>16</td>
<td>Health plan's overall rating of the physician's office</td>
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<tr>
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<td>Patient satisfaction ratings on ease in getting appointment; length of wait in office, telephone access to provider, convenient office hours</td>
</tr>
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<td>Description</td>
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<td>Country from which physician graduated from medical school</td>
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<tr>
<td>19</td>
<td>How the physician compares to the national average in terms of average turnaround time for authorization of referral requests</td>
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<tr>
<td>20</td>
<td>Credentials, board certification</td>
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