To the Graduate Council:

I am submitting herewith a dissertation written by Mary Beth Hogan entitled "The Development of a Model to Identify Market Opportunities Within Medical Group Practices." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Health Education.

Robert H. Kirk, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Provost
and Dean of The Graduate School

THE DEVELOPMENT OF A MODEL TO IDENTIFY MARKET OPPORTUNITIES WITHIN MEDICAL GROUP PRACTICES

A Dissertation

Presented for the

Doctor of Philosophy

Degree

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Mary Beth Hogan

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DEDICATION

To my mother, Loise Culp Hogan, whose confidence, patience, and support have certainly been appreciated.

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ABSTRACT

The primary purpose of this study was to develop a model of an internal assessment system to identify market opportunities for medical group practices. In addition, the study sought to answer the following:

1. What theoretical model contains the most valid components necessary for internal identification of market opportunities within medical group practices?
2. How can that theoretical model be applied in a medical group practice setting?
3. What specific market opportunities can be identified as a result of the application of the model in a medical group practice setting?
4. What revisions of the theoretical model were suggested by its application?

The basis of the theoretical model and the methodology for application of the model was determined through an extensive literature review.

The model specified methodological steps, that included the collection of internal primary data and external secondary data, in addition to the literature review.

The model indicated an extensive literature review as

the first method step. A study population was then selected--a large multi-specialty group practice. Collection of both internal primary data and external secondary data followed.

Internal primary data collection included both the use of patient and provider questionnaires. The Ware Patient Satisfaction Questionnaire and The Patient Demographic Profile were used to obtain both demographic and psychographic data from the provider sample.

External secondary data, consisting of national, state, district, and local information was obtained from public sources.

Simple enumeration, discussion, appropriate descriptive and statistical tests, were used to analyze the accumulated data. The results of the data analysis plus the creative input and/or expert opinion of the researcher completed the steps needed to identify market opportunities.

Application of the model resulted in the identification of numerous opportunities. Categories of opportunities were (in order of significance):

1. Reduction of waiting time/improved time management
2. Increased/enhanced provider education
3. Physical plant or equipment improvement
4. Improvement communication

5. Addition of specific specialists and services
6. Changes in personnel management
7. Promotional opportunities/increased promotional efforts

Based on the findings of the study, the following conclusions were drawn:

1. The theoretical model described in Figure 1 (page 117 of this study), contains the most valid components necessary for internal identification of market opportunities within medical group practices.
2. The theoretical model can best be applied in a medical group practice setting by the following steps described in the methodological portion of Figure 1 (page 117 of this study).
3. Seven categories of market opportunities were identified as a result of the application of the model in a medical group practice setting.
4. No major revisions of the model were needed to achieve the stated purpose of the study, but specificity might be increased with methodological refinements.

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CHAPTER I

INTRODUCTION

This chapter includes a preface to the problem, purpose statement, problem and subproblem statements, followed by a discussion of the study. Basic assumptions, delimitations, and definitions relevant to the study close the chapter.

A. PREFACE

The health care system of the United States is a dynamic one, requiring constant adaptation by medical care providers. Historical accounts recall the physician, who by means of horse and carriage, made home visits despite overwhelming adversity. In contrast, physicians work today in a technologically sophisticated, capitalistic system, that has been subjected to continuous governmental involvement. The system continues to evolve. Although physician's professional aims may be similar to those of their earlier counterparts, current environmental demands dictate that medical practice conform to certain political, social, and economic controls.

Specific evolving forces in medical practice include:

1. Increased number of specialists, while the

number of generalists has decreased, which perhaps has led to increased fragmentation and discontinuity of care.

2. Increased technological capacity, which has created the potential for new ethical issues.
3. Increased third party reimbursement for care, which has contributed to inflated costs.
4. Increased commercialization of health care with a propensity toward profit motives and alternative modes of care.

The practice of medicine has been further complicated by the growing number of physicians. In 1984, approximately 500,000 doctors practiced medicine in the United States. An additional 16,000 new physicians will graduate from medical schools yearly (Goodes, 1984). By the year 1995, the number of physicians has been forecasted to reach 682,000 (Kirchner, 1986). This trend toward an oversupply of physicians has been well documented by other researchers (Ginzberg, 1983, 1985; Kinzer, 1981; McMahon, 1986; Relman, 1983; Rossiter, 1984; White & Culbertson, 1981).

Competition between physicians and between new forms of medical practice is expected to escalate because of changes in the physician-to-patient ratio (Rossiter, 1984) and the decrease in the number of office visits that has occurred (Eisenberg, 1983).

Prompted by major environmental demands, many innovative alternatives to traditional care delivery have been created by health providers. Governmental pressure to reduce the taxpayer's burden of increasing medical care costs has resulted in support for new options of care, through anti-trust legislation that sanctions price competition (Relman, 1983).

Although advertising was previously considered an unethical practice within the medical care community, it has made a controversial debut (Aquiar, 1985). Advertising media have targeted a public whose health information base has been broadened through increased health education and consumer awareness efforts. As evidenced by the growing number of medical malpractice lawsuits, health care consumers have become more demanding of providers. In 1984, one-fifth of all physicians in the United States were the target of malpractice lawsuits (United Press International, 1985). The heightened expectations of health care consumers has been documented as a general trend (Enright, 1984; Leven, 1984; Mistarz, Powills, Riffer, & Shannon, 1984; Shortell & Kaluzny, 1983). Contrasting the trend toward more demanding consumers is the trend toward wellness promotion and increased self-care (Stanton, 1985).

The decreasing governmental role in reimbursing providers of indigent medical care, which threatens the

financial structure that has been the norm in past years, adds to the challenges facing medical professionals (Enthoven, 1980).

The attraction to solo practice, traditionally the most common mode of medical practice, is becoming less prevalent. By necessity, physicians are adapting their practice patterns to allow the additional flexibility needed to respond to a dynamic environment (Beck, 1984; Ginzberg, 1983; Manning, 1977; Sammons, 1982). Between 1959 and 1975, membership in group practice quadrupled (White & Culbertson, 1981). The rationale for this shift is based upon the competitive advantages of organized practices by twelve or more physicians. For example, pooled financial resources offset the initial cash outlay necessary to establish offices, and provide increased capital for investment (Beck, 1984; Hauser, 1983). Malpractice insurance, disability insurance, and health insurance, which are attractive fringe benefits of many professional alliances, may be provided more economically through group organization. Similarly, the capacity to provide extended hours, increased marketing efforts, broader range of services, more ancillary personnel, and ongoing peer relationships becomes more feasible. Other by-products of a well managed group practice may include an increased potential for affiliations/contractual

arrangements, which improves organizational ability to promote patient satisfaction (Beck, 1984). Kotler (in Mistarz et al., 1984) has predicted that small care providers will have to affiliate with larger ones to survive increasing competition.

More and more evidence reveals the need for appropriate management to ensure the success of group practice in an era of declining patient volume, agressive competition, and new alternatives for health care (Aquiar, 1984; Eisenberg, 1983; Hammer, 1983; Punch, 1984; Schleuker, 1980).

B. PURPOSE OF THE STUDY

The purpose of the study was to develop a model of an internal assessment system to identify market opportunities for medical group practices.

C. STATEMENT OF THE PROBLEM

To develop a model of an internal assessment system, the following questions were addressed:

1. What theoretical model contains the most valid components necessary for internal identification of market opportunities within medical group practices?
2. How can that theoretical model be applied in a medical group practice setting?

3. What specific market opportunities can be identified as a result of the application of the model in a medical group practice setting?
4. What revisions of the theoretical model were suggested by the application of that model within a medical group practice setting?

D. NEED FOR THE STUDY

To achieve and maintain viability in the medical care marketplace, the emphasis of physicians must shift from an increased capacity to offer services, to a focus on the demands of the consumer/marketplace (Mitry & Smith, 1978).

Marketing has been proposed as one cure for organizational and competitive dilemmas now facing group practice. Several authors have noted the relationship of marketing to the medical profession:

> The marketing concept is a health care provider's management orientation that accepts that the system's key task is to determine the wants, needs, and values of a target market and to shape the system in such a manner as to deliver the desired level of patient satisfaction. (Cooper, 1982, p. 5)

> Marketing in the true sense is being sensitive to the needs of the people as they perceive them. (MacStravic, 1977a, p. 7)

> Marketing is a process which seeks to identify clientele, their needs and demands for services, and to develop offerings (programs and services) to satisfy evolving demand structure. (Mason, 1984, p. 79)

> Those who deliver health care services have rarely thought carefully about the "market" they serve and tend to regard it as one undifferentiated whole. To provide services competitively, managers of health care organizations must recognize that they serve certain market segments and must understand the concepts of both "product" and "market" to focus energies effectively. (Sheldon & Windham, 1984, p. vii)

> Marketing, by definition is an attempt to anticipate and/or shape consumer behavior. It involves determining what patients want or need (either intuitively or by market research) and learning what motivates their choices. It then concerns itself with developing strategies and routines either for adapting the practice to meet those patient desires or for motivating patients to alter their health care provider choices. (Sweeney & Anders, 1985, p. 10)

Conceptually, marketing has gained acceptance within the health care profession as an ethical and humanistic means of adaptation to current trends ("Marketing is Gaining," 1984). Responsiveness to consumer needs and consideration to patient satisfaction are considered major priorities to health care providers espousing the marketing perspective. Thus, services are tailored to fit the particular needs of the consumer (Fine, 1984).

An examination of the exchange relationship between the provider and the patient is prerequisite to marketing management, if a marketing orientation is adopted. By identification and analysis of the constituency served (target market), study of services offered, and adjustment to achieve the best fit between the two, the effectiveness and efficiency of the health care provider can be continuously improved (through improvement in the quality

of the provider-patient exchange relationship), thereby positively influencing the financial success of the provider.

According to MacStravic (1977a), two major outcomes can be expected when a market orientation is adopted. The first, Effectiveness in Exchanges, is expressed by increased consumer satisfaction, which tends to increase future utilization by the consumer. An increase in consumer loyalty, more effective recruiting efforts, improved patterns of referral, and increased employee productivity should result when a market orientation is initiated within an organization. Reduced turnover rates among employees, as a result of increased employee satisfaction, could also be expected as a by-product to a market orientation. The second major outcome cited by MacStravic, Efficiency in Exchanges, is the accomplishment of the highest level of patient satisfaction at the lowest cost to the organization. Application of increased knowledge of patient characteristics to the offerings of the care provider can assure efficiency for both parties.

From a marketing viewpoint, organizational goals of a medical group practice within the current health care environment can be most readily attained by a continual focus on the consumer. Awareness of consumer characteristics can facilitate the design of service

delivery that increases both patient satisfaction and the tendency toward repeat utilization (MacStravic, 1977b).

Previously, the most common mode of service design that was used by providers was based upon what providers thought their patients needed, rather than on an objective assessment of factors relevant to patient satisfaction (Flexner, 1977; Sommers & Thompson, 1983). The problem is further complicated by the witholding of verbal communication by patients concerning their needs and their expectations of the providers (Uhlmann, Invi, & Carter, 1984).

Physicians can not accurately judge the level of patient satisfaction simply on the basis of patient-physician interaction during care provision (Merkel, 1984). Thus an objective evaluation of patient satisfaction is needed. Similarly, Mitry (1979) suggested that observation alone is an inadequate means of assessing patient characteristics. If managerial decisions are to be made from a consumer-oriented viewpoint, market research is vital (Hill, 1983; Manning, 1977).

Information relevant to consumer characteristics must be obtained to facilitate identification of services to be offered, sensitive financial controversies, access deficiencies, or unmet consumer needs, because attempts to organize without the utilization of consumer data generally

result in undesirable levels of patient satisfaction, leading to the potential for reduced utilization (Clarke, 1978; Clarke & Shyavitz, 1983).

Sheldon and Windham (1984) noted:

> Health care delivery organizations--hospitals, ambulatory helath care centers, HMO's, physicians in private practice or in groups--could once effectively survive simply by repeating what they did successfully the year or decade before or reacting to events as they happened. To rely upon reaction today is to be the "lastest with the leastest." (p. vii)

Medical care providers have become aware of the need for organizational strategies that will enable them to compete effectively in the market that exists. Physicians have not traditionally received business knowledge as a part of their extensive training, therefore they have relied on expensive consultants to discover means to promote their practices (Enright, 1984). Dolan (1985) suggested that it is possible for medical practitioners to identify effective market opportunities without the services of professional marketers, by collecting and analyzing relevant data themselves.

The paucity of research studies that relate concepts of marketing to medical group practice suggests the need for further study. Literature encompassing the entire health care industry has suggested that planning for effective competition within the current environment is necessary (MacStravic, 1977a). In general, the

implications are for pro-active, consumer-oriented strategies derived from analysis of both internal and external factors affecting the provider setting. Naert and Leeflang (1978) recommended that this be achieved through building marketing models, yet there is a lack of models to aid practical application of marketing concepts to medical practice settings.

Medical group practices, which until recently had no reason to consider market research vital to their survival, need systematic study not only to guide program development, but also to establish baselines for future research so that significant trends within the patient population can be identified as they occur.

Upon consideration of the fluctuating medical practice environment and the need for adequate market research, it is clear that an applicable model to facilitate optimal fit between the resources and the population served is needed. Such a model could be utilized to maximize organizational functioning. In addition, the model would contribute to the sparse literature that relates marketing concepts to medical group practices.

E. BASIC ASSUMPTIONS

The basic assumptions underlying this study are:

1. The trend toward competition and increased consumer expectations will continue.
2. Providers within medical practice settings desire to develop a consumer-oriented or marketing approach to service development.

F. DELIMITATIONS

The analysis of the proposed model was delimited to data which could be derived internally within a medical group practice setting or secondary data available from public sources.

H. DEFINITIONS

The following definitions were used in the study:

1. Patient Satisfaction: A reaction to the health care provider based on the six factors of patient satisfaction identified by Ware (1978): Physician Conduct, Availability of Resources, Access, Continuity of Care, Finances, and General Satisfaction. The reaction may be either positive or negative, according to scores as measured by Ware's Patient Satisfaction Questionnaire.
2. Market Opportunity: "A trend or event that could lead to significant upward change in sales

or profit patterns--given the appropriate strategic response" (Aaker, 1984, p. 21).

3. Market Segmentation: The process of dividing a population into groups within common characteristics for marketing purposes.
4. Market Target: Potential or current consumers that the provider would like to involve in an exchange relationship that would be the most likely consumers to facilitate the goals of the organization.

I. SUMMARY

In summary, the major emphasis of this research was to develop an internal assessment system to identify market opportunities within medical group practices. The research included application of the system (or model) within a medical group practice setting, identification of opportunities for that group, and determining whether or not there was a need to revise that model.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter includes an introduction to the review of the literature, an outline of chapter contents, the review itself, and a summary.

A. INTRODUCTION

Health care marketing has developed beyond the embryonic stage and is currently a major concern of health care providers. Disciplines such as health care administration, health care planning, marketing, and management have made significant contributions to the existing literature pertinent to this study, in content as well as methodology. There is such considerable interplay between the topics represented by each disipline that logical subheading of this section was difficult, but because of the extent of the literature and the need to facilitate reading, divisions were made. An outline of the contents of this chapter follows:

I. Literature From Health Related Disciplines
    1. Literature Related in Content
        a. Conceptual Aspects
        b. Marketing Mix
        c. Patient Satisfaction

2. Health Care Marketing 1975-1986
    a. Current Status and Application of Health Care Marketing
    b. Specific Marketing Responses of Providers
    c. Methodological Recommendations for Health Care Marketing Research

II. Literature From Business Administration Disciplines
    1. Literature Related to Content
    2. Literature Related to Methodology

B. LITERATURE FROM HEALTH-RELATED DISCIPLINES

1. Literature Related in Content

a. Conceptual Aspects

Environmental trends--changing financial arrangements/reimbursement patterns (Relman, 1983), an increased number of physicians (MacStravic, 1977b), consumer enlightenment, increased scrutiny/evaluation of health services (Mitry et al., 1979), and increased competition (Greenberg, 1983; Punch, 1984)--have caused health care providers to consider a marketing orientation necessary both to achieve organizational goals and to maintain organizational viability (Enright, 1984).

The author is indebted to Cooper and Robinson for

much of the work in this section. See: Cooper and Robinson, Health Care Marketing Management. Rockville, MD: Aspen Publications, 1982.

Cooper and Robinson (1982, chap. 1) considered marketing to be a management tool that would enable health care providers to utilize resources more effectively by focusing efforts on the satisfaction of specific needs of identified market segments. A definition of Cooper et al., clarified that concept:

> Health care marketing management is the process of understanding the needs and wants of a target market. Its purpose is to privide a viewpoint from which to integrate the analysis, planning, implementation (organization) and control of the health care delivery system. (Cooper et al., 1982, pp. 1-2)

The major focus of health care marketing is the creation of specific plans to increase satisfaction with the exchange relationships between the consumer and the provider of care. Several approaches to health care marketing have been documented. Traditionally, health care was guided by the service concept, which evolved from the belief that the availability of a service prompted a positive consumer reaction. This concept required only marginal marketing effort, perhaps directed at the promotion of consumer awareness of service availability. Study of consumer's needs, design of services to fit consumer's needs, and the provision of adequate accessibility/distribution were not significant goals. In

contrast, now providers can expect meager success without those considerations (Cooper et al., 1982, chap. 1). Shortell observed the same phenomenon:

> Unfortunately, managers have traditionally approached organizational behavior and design from an intuitive perspective, often resulting in inappropriate solutions, unanticipated problems, and missed opportunity. (Shortell & Kaluzny, 1983, p. 496)

Cooper et al. (1982) recognized another concept of health care marketing, the selling concept. Philosophically, this concept had two major premises: That consumers would not utilize a service unless persuaded by intensive salesmanship, and that repeat utilization and consideration of consumer needs were of minor importance. Conflict with the medical code of ethics has prevented the selling orientation from becoming a guideline for providers; however, heightened competition and more agressive selling tactics are more evident than ever before in health care settings (Aquiar, 1983; Berning, 1983). Consumer reaction to the selling type of persuation has been notably poor, but studies have shown a decrease in negative consumer reaction to physician's advertising as the level of patient satisfaction with care falls (Kviz, 1984).

The third concept to be discussed was the marketing concept:

> The marketing concept is the health care providers' management orientation that accepts that the system's

> key task is to determine the wants, needs, and values of a target market and to shape the system in such a manner as to deliver the desired level of satisfaction. (Cooper et al., 1982, p. 5)

The marketing orientation requires the identification of consumer needs via market research to insure that service offerings are appropriate to a specific market. Positive effects of this orientation have included increased consumer loyalty, repeat utilization, increased patient referrals, positive word of mouth, and a greater number of volunteers to work with the provider, all of which may contribute to the attainment of organizational goals (Cooper et al., 1982, chap. 1).

A comparison of the marketing concept to the selling concept revealed that the two are quite opposite. The selling concept suggests studying the services and devising means to stimulate the necessary level of sales. The marketing concept, however, begins by studying consumer needs, then planning services to fit the identified needs. Appropriate marketing management should eliminate the necessity of radical selling tactics (Cooper et al., 1982, chap. 1).

It is understandable that the concept of marketing might be foreign to physicans, since most have not received training in business (Perkoff, 1979). Health care providers have responded to consumer needs previously, but the nature of that response generally has been defined in

terms of what the provider thought was needed, rather than actual patient needs (Cooper et al., 1982, chap 1).

When Cooper and his associates recognized the tendency of providers to consider their offerings from their own viewpoint, rather than from the consumer's viewpoint, they defined the health care marketing process. Recommendations to providers (in shortened form) were as follows:

1. Keep track of and respond to uncontrollable elements of the external environment.
2. Determine the perceived needs of the population served and discover means to meet those needs.
3. Identify the total possible market for services and identify important population traits or trends through study of secondary data.
4. Attempt to segment the population served to discover particular market targets.
5. Assure accessibility/availability of the services to the targeted consumers.
6. Communicate offerings to the target market via all available media.
7. Study the atmosphere of the facility to determine whether or not it projects the desired image.
8. Consider special pricing to third party payors, since pricing can be the basis of initial attraction of consumers or of increased demand for services.
9. Measure the level of patient satisfaction with services offered.
10. Strive for an understanding of environmental factors and the needs of the consumers. (Cooper et al., 1982, pp. 6-7)

Previously marketing was a concern of health professionals, but those efforts were identified by different terminology. Public health literature or "public relations" suggests that a wide variety of activities be pursued to favorably impress consumers, thus promote use of

services. Good public relations do not occur spontaneously, rather, the determination of desires, needs, and other characteristics of the public are necessary to satisfy the population served. A high level of dissatisfaction could lead either to dissassociation from the care provider or to cessation of support by the consumer (Hanlon & Pickett, 1979, chap. 15).

A diagnosis of the target population prior to the development of health care services has been suggested by health education planning models. That diagnostic step should enable program design to be specific to the actual groups served (Green, Kreuter, Deeds, & Partridge, 1980, chap. 10).

Hyman (1975) noted that health services planning should utilize specific information relevant to the status of health within that community, data relevant to facility usage, facts about general population characteristics, competitive analyses, manpower supply data, and information about the current practice environment. Also, it was stated that only the consumer of care can identify their level of satisfaction with the care they receive (Hyman, 1975, chap 11).

Ideally, when determining health education curricula for schools, study of the characteristics of that particular population can help assure that a program will

fit the needs of that population (Pollock & Middleton, 1984, chap. 3).

The desirability of knowing the population to be served has been acknowledged by health care professionals previously, but was not termed "marketing."

b. Marketing Mix

Within business settings, a primary marketing management task has been the study of consumer characteristics and the definition of the most beneficial marketing mix for both the consumer and provider. The marketing mix, commonly referred to as the "Four P's" is the combination of elements that provide the end product or service. Those elements are product, price, promotion, and place/distribution (Rosenberg, 1977, chap. 2; Stanton, 1981, chap. 2).

Product

MacStravic (1977a) as well as Brown (1984, Chap. 6) noted commonalities between business marketing and health care marketing by relating the "Four P's" of marketing management to the health care field. In health service planning, the type of service to be offered would be considered the product of the health care provider. The product itself might be viewed in terms of what benefit the consumer would derive from the service--such as lessened

pain, extended life span, reduced anxiety, decreased disability, increased functional capacity or enhanced quality of life. Preventive programs like nutritional counseling, diagnostic services such as laboratory tests, maintenance programs such as home care or hospice care, and therapeutic services such as surgical procedures are types of offerings that might be considered products of the health care provider.

Simply stated, the product/service element includes the determination of which products/services to offer, plans to develop new products or services, guidelines for modification of existing offerings, and decisions relevant to which market to target. Branding, packaging, or servicing of products is another traditional portion of the product element that could relate to health care (Rosenberg, 1977, chap. 2; Stanton, 1981, chap. 2).

An important aspect of the product is product integrity, according to Kaufman (1984). When the product is designed to meet the needs/preferences of the consumer, it is said to have product integrity. Failure to pay attention to product integrity was said to result in marginal success of the product. To insure product integrity, a process was recommended:

1. Product integrity and consumer needs should be empirically evaluated by means such as surveys,

literature reviews, interviews, or focus groups. Providers often assume that they know the patient's needs or the patient's perceptions of the product, but this may not be a true assessment. Unrealistic evaluation could lead to inappropriate product/program development.

2. Improvement of product integrity can be accomplished in many ways, through organizational resources that are available. Innovative adjustments of the products to satisfy the consumer more adequately and to eliminate the discrepancies between the consumers needs and the actual product, can enhance product integrity.
3. Communication of the product to the consumer and promotion of the product is dependent upon the willingness of the provider to adjust the product to meet consumer needs.

In summary, Kaufman stated that to increase utilization of the health care product, assurance of product integrity is necessary.

Place

Convenience of the service to the consumer is a prime consideration of the second element of the marketing mix--place. The extent of accessibility and the mode of

accessibility to the service are determined by the provider's hours of operation (extended versus nine to five office hours), location (the existence of satellites versus one site of care), and referral processes (by physician referral only versus self-referral by patients) (MacStravic, 1977b). In summary, management of the element of place or distribution determines whether the target market can obtain or be exposed to the right product or service at the right time or place (Rosenburg, 1977, chap. 2; Stanton, 1981, chap. 2).

Price

The third element, price, refers to everything that the patient must go through to utilize the service. Since charges are often paid by a third party, waiting time, lost work time, the cost of a baby sitter, invasion of privacy, or altered self-image might all be considered costs of obtaining/seeking medical care (MacStravic, 1977b; O'Malley, Fletcher, Fletcher, & Earp, 1983). Determination of appropriate profit margin, price level, and pricing policy are decisions relevant to the price element (Rosenberg, 1977, chap. 2; Stanton, 1981, chap. 2). Various manipulations of the price element can be used by the health care provider to increase or decrease levels of demand (Cravens, Hills, & Woodruff, 1980, chap. 14), but it is thought that decreasing physician's charges for services

does not increase levels of demand as in some businesses. Consumers place a high value on their health status and sometimes relate charges to quality of care, so a decrease in monetary charges might be interpreted by the health care consumer as a decrease in quality as well. Another factor that might interfere with creating increased demand by reduction in price is the reimbursement system. Since most health care charges are paid by a third party, consumers may not be as price conscious when shopping for health care as they would be when shopping for another type of product (Gapen, 1985). The complexity of the price element within health care settings substantiates the need for appropriate management of that element for optimal organizational functioning.

Promotion

The fourth element of the marketing mix, promotion, refers to customer awareness of services/products that are offered. It includes both what and how consumers learn about the services of the provider. Consumer awareness of offerings, development of interest to use the services, actual utilization of the service, repeat usage, and recommendations of the provider to friends is the process that is affected by promotion (MacStravic, 1977b). Promotional tactics persuade the public to use the product or service. Displays, contests, educational efforts,

advertising, and personal selling are some of the promotional activities that have been used (Rosenberg, 1977, chap. 2; Stanton, 1981, chap. 2).

Personnel

Within the area of health care marketing, it has been postulated that there should be a fifth "P", personnel. Marketing goals can not be facilitated if personnel policies and procedures are not consistent with marketing goals. If there is inconsistency, then new policies should be developed that focus on consumer satisfaction. Other steps to show committment to the satisfaction of health care consumers include human relations training for employees, a personnel selection process that emphasizes skill in the area of human relations, and the use of employee satisfaction surveys that will help discover problems. In summary, the organization's employees can have a dramatic effect on the marketing goals of the provider ("Finding the Fifth 'P'", 1984).

An appropriate marketing mix (combination of the marketing elements) leads to differential advantage, defined as:

> The difference between the effectiveness of the company's marketing mix and that of its competitors in satisfying consumer wants. The objective, of course, is for the organization's marketing mix to have a greater impact in satisfying consumer wants than that of its

> competitors. In this way, the organization attempts to develop a preferred position with the consumer. The mix elements must be chosen and combined so that the organization sells more than its competition. (Rosenberg, 1977, p. 41)
>
> As Alderson has observed: Every business firm occupies a position which is in some respects unique. Its location, the product it sells, it's operating methods, or the customers it serves tend to set it off in some degree from every other firm. Each firm competes by making the most of its individuality and special character. (Cravens, Hill, & Woodruff, 1980, p. 33)

In addition to relating the "Four P's" of business settings to health care, MacStravic noted the consequences of non-adoption of a marketing orientation by health care providers. Traditional or non-marketing program design (offering what the provider wants to offer rather than what the consumer wants/needs) can result in the wrong product offering, at the wrong place or time, and devoid of adequate promotional tactics to reach the desired population. Failure of the offered program, extensive remedial effort, or decreased effectiveness of program planning may result from lack of an orientation toward marketing. The ultimate negative result of failure to adopt a marketing orientation would be loss of patients to competing health care providers (MacStravic, 1977b).

c. Patient Satisfaction

Patient satisfaction, the desired end result of marketing efforts within health care settings, has been

extensively explored by numerous researchers. Due to increased competition among health care providers, knowledge relevent to patient satisfaction is more important than previously. Studies by Cornacchia (1976) found that 30% of surveyed patients cited that friendliness, personality, and manner of the provider of care were especially important. Personal interest, kindness, and a sympathetic manner were reported as significant provider attributes by 19% of the survey respondents. The intelligence and competence of the provider were deemed important by 18%. The providers ability to heal/cure was considered important by 13% of the sampled population. Sincerity, dedication, frankness, and honesty were also mentioned as positive provider traits. The most predominent patient dislikes were the charges for services rendered and the provider's interests in monetary aspects of care. Other unfavorable characteristics that were listed by consumers were inadequate time spent with patients, hurrying the patient, impersonality/coldness toward the patient, failure to be honest with the patient, and unavailability of the health care provider.

Mitry et al. (1979) reported that health care consumers were particularly concerned with cost, availability, and quality. Quality was defined as the provider's utilization of the latest medical technology and

holistic consideration of the patient's needs (social, psychological, and physical needs). With the appearance of larger care systems, consumer dissatisfaction with care has increased in the realm of emotional/personal concerns. According to those authors, consumer satisfaction with care is two-dimensional, considering economic quality, and behavioral quality. Their definition of economic quality was quite broad and included many aspects such as cost-benefit analysis, which has a complicating element, because health care benefits are not always obvious or instantaneous. Accessibility was found to be important, as well as the consumer's desire for choices of modes of care, given appropriate explanations of their options by physicians. Equity of care, defined as dignified treatment regardless of payment mode, was another element of economic quality that was defined. Medical research by the provider, or utilization of medical innovation were viewed as advantageous competitively, when incorporated with services already offered. This raises the question of whether the physician communicates his participation in using new methods of treatment to patients. Thorough explanations of medical decisions to patients, so that technical alternatives of care can be integrated with personal attributes was also suggested to promote patient satisfaction. This aspect of care has become especially

significant since ethical dilemmas are now commonplace in the health care system.

The behavioral quality aspect of patient satisfaction includes the degree of autonomy afforded the patient, which is complicated by the physician's need to maintain control over care. Patients may exhibit negative reactions when they are not assuming an active role in determining/planning care, which also complicates the issue of autonomy. The patient's tolerance for uncertainty and the patient's varying degrees of need for personal attention were also related to levels of satisfaction with care (Mitry et al., 1979).

In spite of the simplified two dimensional approach of Mitry et al., the criteria for patient satisfaction is complex and difficult to define. Lochman (1983) felt that components of patient satisfaction provided a means for indirect assessment of quality of medical care, but also noted the "conceptual fuzziness" (p. 106) of the construct of patient satisfaction. Lochman listed factors with the clearest association to patient satisfaction:

1. Accessibility to care includes the patient's perception of the physicians availability, waiting time during office visits, hours of operation, and whether house calls were offered; but those were perceived as less important than the physician's behavior.

2. The organizational structure of clinics was found to be associated with patient satisfaction. As provider's autonomy from administrative dictate increased (giving providers greater flexibility in handling patients), patient satisfaction increased.
3. Longer treatment length was associated with higher levels of patient satisfaction.
4. Patient's perceptions of physician's competence were dependent on effective physician-patient communication.
5. Only one-half to one-third of physician's instructions to patients were remembered by patients. Levels of patient satisfaction were highest among patients who returned the most information
6. The physician's caring concern for the patient was found to promote patient satisfaction.
7. Patients were found to be more satisfied if they were given the opportunity to express opinions or feeling about treatment.
8. A greater level of patient satisfaction was present if the consumer's expectations were met. Expectations of patients differ according to their locus of control.

In addition to those factors listed, it was found that patients' actual health status was not associated to their level of satisfaction with care received.

When patients' level of satisfaction is measured prior to a return visit to the health care provider, a generalized, rather than specific perception of satisfaction can be expected. This results from the patient's accumulation of information relevant to previous visits, rather than specific event. A more specific patient satisfaction assessment could be obtained if the measurement occurred immediately after the patient's encounter with a health care provider.

Mirty et al. (1979) suggested that the measurement of patient satisfaction should rely on both subjective and objective determinations. Ambulatory care settings were noted to be especially flexible to the manipulation of services to augment patient satisfaction. In-patient settings are not so easily altered. Often, in an ambulatory care environment, enhanced levels of patient satisfaction can be achieved through minimal intervention/alteration of offerings.

Particular dimensions of patient satisfaction seem to be independent, thus consumer satisfaction can exist relevant to one aspect of care, while the same consumer is dissatisfied with another aspect of care. Familiarizing

employees with the elements of patient satisfaction by inservice education has been found to be useful. Adequate training of staff members has been found to lead to significant improvement in levels of patient satisfaction (Brozovich & Shortell, 1984).

Sapienza (1980) also noted that patient satisfaction is never solely dependent on excellence of technical care. Likewise, Flexner (1977) supported that viewpoint, having found that concern for physical comfort, need of social and psychological support, and ease of purchasing the product are important variables.

Goldsmith (1977) believed that patient satisfaction is the result of good physicians and humane, personalized care, however, Uhlmann (1984) defined patient satisfaction along the dimensions of expectancy and value. Resolution of patient's requests and expectations were found to be key determinants of satisfaction, but providers may find it difficult to satisfy consumer expectations since patients often do not readily communicate their wishes.

Expectations of the consumer was also noted as an aspect of patient satisfaction by MacStravic (1985), who listed goals for providers that would insure success in meeting the expectations of consumers: determination of what patient expectations are relevant to selection of a health care provider. Learning what the patient expects

during the medical visit, manipulating the medical experience so that it meets patient expectations, and communicating well with patients throughout the medical experience were deemed essential to create a satisfactory experience for the patient. All aspects of patient comfort--physical, psychologial, and environmental; as well as concurrence (the extent of agreement relevant to care regimen, diagnosis, or prognosis) are other important areas of patient satisfaction.

Selection of a health care provider is dependent on eight major criteria including availability, compassion, compatibility, and competence. The expected results of care or expected consequences of care is also a factor when a patient decides which type of care or which provider to use. Convenience and cost of care are other factors which are considered by the patient relevant to the selection process (MacStravic, 1985).

A study by Thomas and Penchansky (1984) assessed the importance of access to care relevant to patient satisfaction. Access was defined as the degree of "fit" between the health care provider and the consumer. Specific dimensions of access were availability, accessibility, accommodation, affordability, and acceptability. Utilization was influenced by satisfaction

with particular dimensions according to specific population segments (as identified by demographic characteristics).

Patient satisfaction has been found to be an important determinant of patient compliance with care regimens, decreased tendency to "doctor shop" and good public relations. It appears that physicians are unable to accurately assess levels of their patients' satisfaction with care based on the physician-patient interaction during care provision (Merkel, 1984).

Studies relevant to the nature of patient satisfaction are extensive. Over 100 studies by various authors were utilized by Ware and his associates to define the concept of patient satisfaction. Their major classifications of the elements of patient satisfaction were: art of care, technical quality of care, accessibility/convenience of care, finances, physical environment, availability, continuity, and efficacy or outcome of care. A proposed taxonomy of those dimensions of satisfaction was developed and utilized for the construction of a questionnaire to assess accurately the level of patient satisfaction with services. Extensive testing aided further refinement of the instrument. Sociodemographic variables were found to influence the level of patient satisfaction. Those included were: age, education, family size, income, marital status, occupation,

race, religion, sex, and social class (Ware, Davies-Avery, & Stuart, 1978). A later study, supported by the National Center for Health Sciences Research and Development led to the construction of an instrument found to accurately assess patient satisfaction (Ware, Snyder, Wright, & Davies, 1983).

2. Health Care Marketing 1975-1986

a. Current Status and Application of Health Care Marketing

Specific trends have been documented that affect health care delivery and tend to increase competition among health care providers. A brief summary will re-emphasize various elements that must be considered when studying the current status of health care marketing.

In 1983, the United States spent 10.5% of the gross national product on health care services (Goodes, 1984), an amount higher than any other time in history. In spite of an improved economy, the country can not afford that cost, therefore a need for cost containment in health care services has been recognized (O'Connor, 1985), and is guiding government involvement in the health care system. Health care providers have had new reimbursement guidelines to contend with, such as the DRG (diagnostic related group)

form of payment. Also, an increased demand for high quality of care has been reported (Goodes, 1984). Additionally, increased competition for patients has resulted because of an oversupply of physicians (Goodes, 1984; O'Connor, 1985). Many health care providers have actually noticed a loss of their patients to competing organizations (Gapen, 1985), as new forms of care have emerged. For-profit health care corporations, home health services, hospice care, hospital-based short term surgery, and ambulatory care clinics are but a few examples of recently developed options that compete with medical group practices for market share (Goodes, 1984). Stanton (1985) documented the trend towards self-care and wellness promotion, and felt that providers must respond to that trend by offering carefully targeted health education/patient education programs.

In 1977, Goldstein recognized that out-patient care would be emphasized in the future, since that type of care is more suitable for most patients than hospitalization. Out-patient care is also less costly.

Philip Kotler, who has written extensively in the field of marketing management was interviewed and a summary of his predictions relevant to the health care system was provided. A major conviction of Kotler was that health care providers who do not adopt a marketing perspective

will fail, a belief also forecasted by Muller (1984). More traditional forms of health care management which have been heavily reliant on intuition, have resulted both in missed opportunities for organizational improvement and inadequate solutions to problems. Kotler expected that large corporations, through exploitation of economies of scale, will continue to grow in the health care field, and that they will soon hold 50% of all hospital beds in the United States. More differentiation in services will be evident among health care providers and new options for care will continue to increase. For providers to effectively deal with competitive forces, they will obtain more knowledge about consumer's needs and perceptions, Kotler stated. As providers act to satisfy consumer's needs, a rise in consumer satisfaction with the medical care system will also occur. Kotler predicted that small health care providers will merge with larger ones to enhance their ability to cope with increased competition. Marketing budgets will increase, and in some geographic areas, competitive wars between health care providers will occur, according to Kotler (Mistarz, 1984).

Goodes (1984) recommended a planning process to enable providers to compete effectively. An in-depth look at the consumer and a determination of strengths and weaknesses of the provider were thought to be necessary

management activities. To achieve organizational goals, information gathering and the determination/segmentation of the market were also suggested.

Sheldon and Windham (1984, chap. 1) made recommendations to providers for the development of strategies that would result in effective competitive action. An understanding of change (from a selling orientation to a marketing orientation), change in the skills and attitudes of staff, and a conceptual knowledge of product, market, and segmentation were considered relevant to the current health care marketing situation. Two major categories of health care providers responses to the new demands have been noticed. The first is the development of large networks which consolidate services geographically and offer attractive financial plans. Cross-referral arrangements also help such networks to maintain an adequate patient volume. Prepaid health care plans, such as HMO's (health maintenance organizations) and PPO's (preferred provider options) are examples of the network concept. The second response that has been evident is the provisions of services to an array of unrelated consumers. That type of arrangement is less likely to be geographically based.

Environmental uncertainty surrounds the health care system currently, but means to effectively cope or to

reduce the uncertainty have been found. Market analyses can obtain information to enable a provider to create competitive options within particular organizational limits, identify market opportunities that exist, and relate organizational resources to environmental demands. Suggested activities to facilitate strategic positioning were environmental scanning, market opportunity analysis, collaboration/aggregation of assets, organizational rearrangement, and management of medical personnel (Sheldon & Windham, 1984). Providers must also know what their limitations are to effectively evaluate their options (Inguanzo & Harju, 1985).

Interviews of health care management executives by Mistarz et al. (1984), revealed that much internal data is usually available to health care providers, but is generally not fully utilized for planning. Such information can easily be obtained, and could facilitate decision making within organizations. Market research, defined as: "Collection, organization, analysis, and interpretation of data that relates to an organization's internal and external environment" (Mistarz, 1984, p. 34) can be useful in identifying problems, resolving issues, or spotting opportunities. Surveys, focus groups, or interviews could be useful to gather information. In addition to internal data, external data from secondary

sources are usually available at minimal cost. Health related statistics of city, county, or state can be obtained from various government agencies. Chambers of Commerce or health care foundations may also be valuable sources of data.

Loevy, Anderson, and Aday (1983) found that determination of the needs of the target market is vital to marketing. Specific questions that a medical group practice should consider were listed:

1. What are the characteristics of the patients that the group practice attracts?
2. Of those patients, which become loyal users?
3. Do loyal users differ according to the specific provider they see?
4. Does the organization provide better access to the specific provider that they see?

Basically, the questions described by Loevy et al. suggested that segmentation of the current patient population could lead to better understanding of the characteristics of loyal users, and could pinpoint opportunities for better marketing of the practice.

Gapen (1985) cautioned physicians against thinking that they understand what the consumer wants and suggested that focus groups or other means could be used to identify consumer's needs and expectations.

When deciding which source of care to use, patients consider the friendliness and courtesy of health care providers (Mistarz, 1984). Consumers do notice the differences in health care providers, thus provider image should be an important consideration in planning to compete effectively in the health care market. Creating a favorable image is necessary now, according to Perkoff, who found that the notion of "selling" themselves was a foreign idea to most physicians. In spite of the apparent altruistic aspects of medical practice, there is a need for appropriate marketing.

> No matter what one's view of the profession, individual physicians believe their own motivations are relatively pure and that the public seeks them out because as physicians they fulfill an important recognized need. Somehow they see their role as distinct from that of a "seller of services." (Perkoff, 1979, p. 91)

In addition to Perkoff and Mistarz, Eliopoulas (1985) also noted that the provider's image is important to the amount of demand present for that provider's services.

Many times discrepancies exist between the consumer's perception of the organization and the perception that the organization has of itself. Consumer's perceptions, even if wrong, do influence their decisions about which health care provider to use. This has become an acute problem since competition has increased, because a provider could lose patients to their competitors if other

providers evoked a better evaluation by consumers. Measurement of consumer attitudes, needs, or patterns of utilization can be useful to discover problems and to design marketing plans (Inguanzo et al., 1985).

Another factor that has been linked to consumer choice is their awareness of options for health care. Surveys have shown that many consumers are not aware of all their existing options for health care (Inguanzo et al., 1985).

Availability and distribution of facilities, characteristics of the service area, utilization rates, measurement of patient satisfaction, and patient origin studies were deemed important in planning marketing strategies. Satisfied consumers tend to return, and consumers who see the same physician each visit tend to be more satisfied than those who see a different physician each visit. Interestingly enough, it was found that economically disadvantaged patients were more likely than economically advantaged patients to see more than one physician. Convenience of the facility was found to be a source of increased satisfaction, but only in economically advantaged consumer groups. The author concluded that the establishment of stronger patient-physician relationships is a more important organizational challenge in the current health care marketplace than reaching new patients (Loevy et al., 1983).

Another recommendation to health care providers was that they become involved in the process of marketing their services, a step that has been found to be beneficial to organizational adaptation to current trends. Personal acceptance of responsibility for organizational welfare can be emphasized if three elements are present: knowledge of organizational goals, ability to achieve stated objectives, and shared values within the organization (Brozovich & Shortell, 1984). Value based management as a method of dealing with the problems facing health care providers was also emphasized by Shortell and Kaluzny (1983). Suggestions (Brozovich et al., 1984) were made for the promotion of individual involvement with the success of the organization:

1. Promote relationships with employees that are not temporary, but oriented toward lifetime employment.
2. Provide skill training specific to organizational needs.
3. Involve the employees in organizational decision-making by supporting a participative form of management.
4. The employees should be viewed comprehensively, considering all of their particular strengths and weaknesses.

Gapen (1985) noticed two prevailing attitudes of physicians relevant to meeting the challenges of marketing. The first was that the physician could adequately meet the new challenges without the aid of new technology or a supportive network. Gapen suggested that physicians who support this notion are likely to fall behind their schedules frequently, have lengthy waiting times, and have long turn-around times for insurance forms. Competitors who analyze consumer need and understand the economic aspects of medical practice will be a threat to these less innovative physicians.

Shea (1985) suggested that before deciding how to accomplish marketing goals, the rationale behind the specific goals should be studied carefully, which is a step often neglected by health care providers. Since each organization differs, an individualized approach to marketing planning was suggested. Guidelines were given, using ten "P's", instead of the usual four:

1. Planning should provide goals which focus on the future of an organization.
2. Profiling of patient characteristics is needed before other steps can be taken.
3. Product of the organization should be defined (What is actually being sold?).
4. Price policies should be scrutinized.

5. Place of a service should be accessible (yet, location becomes less important as services become more specialized).
6. Patients are the ultimate challenge--how to attract and keep them.
7. People within the organization have an influence on the quality of care. Referral sources should also be recognized as important.
8. Professionals in marketing or other disciplines can be of help if specific problems can not be resolved.
9. Promotions should follow plans, not take the place of them.
10. Patience of providers is needed becauase marketing efforts do not always show immediate results.

In addition to the aforementioned concepts, the literature reveals a multitude of specific marketing suggetions for health care providers. To facilitate summary, Table 1, on the following pages, cites various author's contributions.

B. Specific Marketing Responses of Providers

Diverse innovative ideas have been created and successfully implemented in response to current marketing

TABLE 1

SELECTED AUTHORS' MARKETING CONCEPTS AND SUGGESTIONS

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Bates (1985)	Satisfying the needs of the referring physician and the referred patient is important to the success of medical practices thar are largely dependent on consultations. Attention to specific details can facilitate the consulting process.	Avoid secondary referrals: The consulting physician should never call in a third physician without first checking with the referring physician. Keep the referring physician informed of changes or progress relevant to the patient. Periodic reports to the referring physician are needed when treating a long-term patient. Written reports back to the referring physician should be timely, neat, accurate, and concise. Show gratitude for the referral. Gifts, a special dinner, praise, and sending the patient back to the referring for follow-up care are some means that could be used.	Continued referrals, thus contributing to the success of the practice.
Cousins (1985)	Many consumers change health care providers due to dissatisfaction with the care experience. According to research only 25% of patients who change providers do so because of perceived incompetence. Particular factors influence patient-physician relationships.	The care provider must have good communication skills. The office atmosphere should be one of organization. The physician should be able to inspire confidence in the patient. Physicians should pay attention to their personal habits and the effect of those on patient-physician relationships.	

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Danko and Boucher (1985)	Obstetric care providers will experience heightened competition, coupled with denumbers of births. To stabilize/increase patient volume, a proactive strategy is needed.	Study the market on a customized basis. Determine how much of marketing planning should rely directly on target women and how much on obstetricians themselves. Identify community perceptions of competing OB/GYN services. Specific research questions for OB/GYN services: 1. On what specific attributes is there equal satisfaction among OB/GYN providers? 2. What are the most important criteria involved in selecting OB/GYN services? Focus group interviews or structured questionnaires can help obtain needed information. The findings of research should be followed in developing a marketing plan.	Maintenance and/or increases in both patient volume and patient satisfaction.
Dolan (1985)	Study of the population served should precede any marketing implementation. Options were provided for medical group practices to consider.	Objectives or goals of the practice, demographic traits of the population, competitive analyses, and the level of community acceptance of health care marketing should be studied. Direct mail, comparison shopping for needed marketing materials, television and radio promotions, and printed advertisements are options to consider.	Marketing mistakes are unlikely to occur. Choosing the options appropriate to the patient population can enhance promotional efforts.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Erhardt (1985)	If a health care provider treats the patient with concern and respect, the patient will spread the word, thus obtaining new patients for the provider.	Avoid lengthy waiting time for patients. If delays are unavoidable, notify the patients and give them options to either reschedule or wait, letting them know that they have the option to avoid excessive waiting time. Appologize to patients that have been kept waiting. Spend at least fifteen minutes each visit with hospitalized patients. Give drug samples to patients when possible. Timely, courteous correspondence: send holiday greeting cards to those patients that remember their physician in that way and send handwritten notes to the families of patients who die. Be available by phone to solve minor problems.	The patient will feel that their time is considered valuable, thus creating a higher level of satisfaction. Reduces apprehension in hospitalized patients. Patients appreciate the money saved. Patients appreciate the resolution of problems by phone.
Gapen (1985)	The more innovative physicians will be more likely to survive increased competition. Suggestions from successful businesses provide guidelines for medical practices to better market their services. Ideas were listed.	Adequate promotion of services. Good product positioning/differentiation. Knowing/responding to consumer needs. Courtesy to patients by all staff. Concern for the patient by all staff. Accessibility of the provider. Maintain technical expertise.	A more favorable market position and a more favorable provider image.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Gapen (1985) (continued)	Various measures can aid the development of marketing plans.	Utilize survey techniques for gathering data about patient perceptions of the provider. Secondary data can be useful in planning marketing strategies. Utilize a wellness orientation to promote programs that focus on specific health problems.	Marketing plans will be based on adequate information. Chances of offending potential consumers are reduced by not focusing on negative aspects of illness.
Gerald (1986)	Good nurse-physician relationships can save time, frustration, and malpractice suits, as well as being a positive marketing tactic.	Physicians should understand all sides of misunderstandings before reacting angrily to nurses. Physicians should put aside aloofness toward nurses and learn to trust and rely on them. Physicians should pay attention to the nurse and listen carefully to their expressed concerns about patients. Physicians should answer nurse's questions thoroughly and read the nurses notes in patient's charts carefully.	The nurse will be a valuable contributor to the success of a medical practice.
Hardy (1986)	The success of a medical practice depends on the staff as well as the physician, because their personal contract with patients is essential to a positive health care experience by the patient.	Employees should be allowed to participate in managerial decisions, rather than being "dictated to." Inform employees of major changes in the practice and ask for their input and help.	Highly motivated employees will be good marketing agents for the practice, thus will contribute to its overall success.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Hardy (1986) (continued)	Physicians can motivate their staff or hinder the staff's contribution to the success of the practice.	Ask employees for their advice about reducing office expenses.	
McDermott (1985)	Physicians perceive threats to the future practice of medicine and must understand effective approaches to the future. A study revealed concerns and possible solutions.	Develop a proactive rather than a reactive style of management. Define goals, and where conflicting objectives exist within the practice, compromise. Continuously monitor external forces through continuing education of market research. Turn threats into opportunities by taking the information and devising creative solutions--which will facilitate the transition from a sellers market to a buyers market.	By following the suggestions, a transition into a different sort of practice future will be facilitated.
Moser and Alpern (1985)	Printed promotional materials are a vital part of a marketing plan, but must carry the appropriate and/or needed message to assure that the consumer will receive the intended message and will respond favorably. Criteria must be met to assure appropriate communication. The process of communication is an on-going one. Once begun, it must be sustained.	Market research must be done initially to determine the characteristics and need of the consumer. If promotional expertise is not available in-house, securing a professional can spare the expense of costly mistakes. Track patients who exit from the system, find out why they left. Quantitatively assess the promotional campaign, for instance, by measuring increases (or decreases) in patient volume.	Printed materials that are a strong promotional tool (carry the needed message to the patients) can contribute to retained and/or increased patient volume.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Moser and Alpern (1985) (continued)	By listening to patients and the community, communications can be reshaped or changed as needed. The provider must be flexible.	Take a proactive rather than a reactive stance to the changes taking place in health care. Have a clear definition of goals prior to promotional plans. List problems within the practice and possible resolutions. Have newsletters be more educational than selling tools.	
Payne (1985)	Marketing a practice can consist of very simple, common-sense tools. To increase/maintain patient volume, specific measures can be taken to let patients know that the provider is concerned about their welfare.	Exhibit good eye contact and adequate listening skills. Courtesy, availability, and avoidance of abrupt departure after examination. Send thank you notes to patients who send gifts. Display a sense of humor on appropriate occasions. Give drug samples to patients, especially if there are known financial problems. Take credit for and pride in work well done. Be a "good neighbor", for example, maintain battery cables to assist patients whose cars will not start.	Lets patients know that the provider is interested. Promotes the patient's peace of mind. Lets patients know that the thought was appreciated. Lessens patient anxiety. Patients understand that the provider is concerned about their financial constraints. Generally, this lets the patient know that the provider cares.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Peterson and Orlikoff (1985)	A higher level of patient satisfaction can be achieved by response to consumer needs and expectations. The attitudes and actions of physicians and staff has an impact on the patient. Insure that the patients have a positive impression by following some specific suggestions.	Understand and satisfy consumer expectations, for example, consider the patient's self-perception: The patients remembers how he/she is treated in human terms, not technical terms. The patient needs to have some control over their body, thus their input should be included when determining a treatment plan. The dignity of the patient need to be maintained, through promoting their retention of self-worth throughout the care experience. The provider should give feedback to the patient that reinforces the patient's individuality/identity. The provider should maintain the patient's privacy, using discretion in personal/confidential matters. Attention should be given to the projected image of the provider. The environment and staff can greatly contribute to marketing success.	The consumer's needs and expectations will be more likely to be met.
Shafer (1986)	Tardiness can cause problems in a medical practice, regardless of cause. The key to successful scheduling is to allot the appropriate amount of time to each visit, then stick to it.	Categorize types of visits and work out time allocations, based on the needs of individual practices. Give the staff orders to keep a number of slots open each day for patients that must be seen immediately (reserve more such slots during winter months). Build time "cushions" within the plan.	Avoidance of patient dissatisfaction from excessive waiting time.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Shafer (1986) (continued)		Ask new patients to arrive a few minutes early to secure the needed paper work. Have the receptionist inform patients that the time schedule is accurately kept. If an extended emergency occurs, give the patients the option to reschedule or wait. In other words, do not let the emergency spoil the patient's time/plans. Appologize to patients who are left waiting for any reason.	
Schutte (1985)	Carefully review marketing strategies prior to implementation. Generally, successful innovations outnumber failures, but the potential for negative effects is considerable.	Do not promote a service until it is actually ready to be implemented. Cull organizational mailing lists to avoid mailing newsletters to deceased patients. Reconsider discounting prices, because it can negatively affect insurance reimbursement. Do not add new services that are counter-productive to those services already offered. Carefully weigh plans for satellite clinics--often they do not succeed. 1. They may promote new competition. 2. Overhead may increase, without increases in productivity. 3. Only a tremendous increase in volume can support the addition of a satellite clinic.	Avoids alienation of patients. Avoids offending the patient's family. Avoidance of loss of income. Avoidance of a negative impact on existing services. Avoidance of unsuccessful establishment of a satellite clinic and subsequent loss of income.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Shea (1985)	Marketing can increase the viability of group practices within a competitive environment. Marketing tactics range from simple to complex. Options for marketing were listed.	Strategic planning for group practices. Public relations efforts. Referral base promotion Direct mail-outs. Other forms of advertising.	All the listed suggestions promote a more favorable market position.
Sweeney and Anders (1985)	Until very basic in-house marketing needs are met, more extensive marketing study should not be done. Basic considerations were listed. Positive word of mouth by patients to friends is a major source of referrals, and one of the best marketing tools.	Open phone lines to call the provider are essential. Eliminate excessive waiting time and convenient office hours. Office functions should run smoothly. Parking must be adequate, and staff should be cordial.	All the suggestions basically provide adequate accessibility to the provider and/or promote in-house marketing efforts.
Taylor (1985)	A look at the ways that competitors fail to meet the needs of consumers can provide ideas about organizational tactics that will meet those unmet needs. Successful strategies that have been used to promote marketing were listed.	Location: The facility should have adequate room, should be comfortable and designed to promote efficient traffic flow. An in-house laboratory and ample parking are priorities. Accessibility: Waiting time should not be extensive, especially for seriously ill patients. Inservice training should be developed to help staff members screen patients so that urgent problems are not neglected. Convenient payment schemes: The use of credit cards should be considered.	Promotes the use of the facility by patients. Levels of patient satisfaction will increase.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Taylor (1985) (continued)		Miscellaneous: Extended hours, continuity of care and assistance with insurance forms should be provided. A telephone call or other type of reminder of the physician's instructions, as well as a reminder of the return visit date conveys an on-going interest in the patient. Transportation services for the elderly and a comprehensive family-oriented model of care are also attractive marketing measures. Marketing: Do not haphazardly plan service offerings. Target services toward particular patients groups. Within the facility, staff can help market the services by remembering the patient's name, calling the patient by name, and being courteous or helpful to patients. Generally the major aim should be to identify patient's needs and satisfy them. Motivational strategies: Inservice education of employees, managerial consideration of new ideas, attention to quality of care, and the use of new managerial techniques such as quality circles, can help staff present a positive image to the population that is served.	Appropriate and effective services Adequate internal promotion of services.

TABLE 1 (Continued)

Author(s)*	Basic Concept	Specific Suggestions to Providers	Expected Results
Winter (1985)	Internal marketing helps personnel understand and recognize the value of promotion and their role in it. Recognize that the most valuable marketing asset is the organization's personnel. Full cycle marketing involves: 1. Research and planning 2. Internal marketing 3. Product development 4. Promotion 5. Service delivery	Instill a service orientation among staff and train them in its delivery. The active and visible leadership of the administrator is essential for success. Both senior management and middle management must be trained to carry the marketing message throughout the organization and exhibit consumer-oriented behaviors themselves. Line employees have the highest level of patient contact, so the service attitude should be evident in their interactions with patients. An internal marketing campaign could educate the employees and give them the skills needed to reflect the service orientation. Choose a committee from both formal and informal organizations that are representative of all layers of staff, to help define marketing efforts. Specific training efforts within the organization will be more successful if that committee supports those efforts.	Increased patient satisfaction and adequate/increased patient volume.

*Refer to the special concepts and suggestions bibliography which follows this table for specific citation sources.

opportunities. Examples of options persued by providers will follow and will be classified by product, place, promotion, price, or miscellaneous.

Innovations Relevant to Product

The need for measures to reduce costs and the decrease in patient usage of hospitals has spurred the introduction of out-patient surgery centers and out-patient diagnostic centers. These new services are more adequately reimbursed than in-patient care (by DRG guidelines) and are welcomed by consumers. Attention to staffing, internal environment, location, traffic patterns, and operational hours are promotional efforts that have aided their success (Sabin, 1985).

Providers have also developed products that are related to the wellness concept that is popular nationally. Wellness packages, including such elements as fitness programs, stress management, or weight loss have often been sold to businesses (for their employees) or to individual patients. Many of these programs are delivered at the work site, and are thus attractive to industry. Another attractive feature is that such programs have been shown to reduce absenteeism or positively influence employee health (Gillette, 1985; "Love-Life," 1982; "Out to Walk," 1984).

Other products have resulted from needs presented by patients with specific disease entities or special health

problems. Examples include a peer support group for women who have experienced a miscarriage (Friedman & Cohen, 1980), a sports injury clinic for school athletes ("Sports Injury Clinic," 1982), educational material for diabetic patients ("Diabetes Education," 1984; "Diabetes Manual," 1985), and a weight loss center for obese patients ("Gaining Market Share," 1984). Most of these products have proven profitable ventures for providers. For persons on special diets, a Tulsa, Oklahoma, provider compiled a leaflet which enabled consumers to choose appropriate foods when dining out. That brochure listed food values for each of the major restaurant's in that city. It was distributed to 330,000 people and attracted positive consumer attention ("Health Education," 1983).

A special product offering for adolescents was designed by a Minneapolis provider and distributed through schools and other youth advocates. Information about physical fitness, nutrition, mental health, and bodily awareness was packaged in a colorful, durable box and called The Body Shop. Generally, the information focused on those aspects of health that are especially interesting to adolescents. The boxes were promoted, sold, and shipped to interested groups that had purchased them, then were implemented. Grant money supported the cost incurred in the developmental phase of the product. The program both

increased revenue and upheld the provider's reputation of committment to community health/health education ("Body Shop," 1985).

A product designed specifically in response to identified consumer needs was prenatal counseling. When a group practice decided to assign this job to one of their nurses, it was so successful that she was assigned her own office and phone to facilitate the counseling. The economic impact of this arrangement became obvious almost immediately. A higher level of patient satisfaction was generated and it freed the physicians of tasks that could be done more effectively by the nurse (teaching breast self-examination, educating for prenatal nutrition, responding to questions of a non-acute nature). The cost was offset by the resultant high level of patient satisfaction and the growth of the practice (Hirsh, 1984).

Patient education in the form of a brochure to aid patients' understanding of insurance forms is another product that has been successfully used by providers (Shulman, 1982).

Products that target special consumers are often spin-offs of existing services. A program for fathers and their new babies was developed by a provider and proved to be extremely successful. Though not heavily promoted, word of mouth was positive and each class had maximum

enrollment. Apparently the public relations aspects and the positive emotions generated by the program have had a positive impact on other areas of the provider organization. The program had a very small initial cash outlay, but required a fifteen dollar fee for each participant, which proved cost effective ("For a Father," 1984). A class for siblings who are awaiting the birth of a baby was organized in a similar manner and was also very effective. It received national attention because of the program's effect on the bonding process of siblings. Again, the public response was beneficial, though the cost was small ("A Class For," 1982). Patient education and newsletters for expectant mothers have also been successful marketing tools ("OB Literature," 1984; Prenatal Newsletter, 1982).

Innovations Relevant to Place/Distribution

Other new care offerings have been developed by altering traditional practices relevant to the site of care or the distribution of care. Free-standing emergency centers are an example of a medical facility that offers a product (emergency care) at a non-traditional site (traditionally, emergency care was provided at hospital emergency rooms). It is estimated that by 1990, there will be thousands of these facilities in the United States. Their success has been attributed to the trend toward high

population mobility (which discourages permanent patient-physician relationships), very short waiting time (approximately fifteen minutes), extended hours of operation, and prices that are usually lower than other sources of emergency care (Stringer, 1982).

House calls by physicians is another mode of care which represents a different site of care than what has been the norm in recent years (Kopernick, 1986). Historically, house calls were common, but declined when other means of care became more attractive. This mode of care is expected to increase in response to increased competition (Associated Press, 1983).

One provider tried a drive-in approach to care by offering a drive-in blood pressure screening. It was conveniently set up in a parking lot and was promoted extensively. The population that was checked included 1,550 people, of whom 58 were hypertensive and were subsequently referred for treatment ("Blood Pressure," 1983).

Home health services have been developed to provide a more positive, convenient means of care for patients who are unable to travel easily. These services have received good responses by consumers. Providers are encouraged because most costs are reimbursed by third party payers ("Home Health," 1985).

Various community settings such as churches, schools, or municipal buildings have been used to target populations without a regular source of care. Simple screening tests were performed free, but proved to be economically advantageous to the provider because of referrals and positive public reaction that were the result of that effort ("Health Screenings," 1982).

Innovcations Relevant to Promotion

Promotion of existing or new health care products has also received the attention of care providers, who have responded with creative promotional efforts.

One physician, who agreed to participate in pharmaceutical drug trials because of the additional income that would be generated, found that patient interest was stimulated and resulted in a 15% increase in patient volume. It was advocated as a basically risk-free, no investment promotional tool, since the sponsoring pharmaceutical company assumes liability (Heller, 1985).

Promotions of new programs such as cardiovascular surgery or introductions of new equipment by celebration ceremonies has proven to be effective promotion. Open house, videotaping for later use, invitation mail-outs, and media coverage can help increase public awareness of service offerings ("Dedicating a New," 1985; "Introducing New," 1983).

Presentation of health booths/exhibits at community activities or fairs has also been successfully used to increase public awareness of providers ("The Heart," 1985; "Hospital Booth," 1983).

Aggressive advertising which has appeared in magazines, newspapers, and other publications, has been found to effectively attract patients ("Ad Gallery," 1985). Similarly, regular placement of physician profiles in a local newspaper was a marketing venture of one provider, who found that the profile promoted public awareness of medical specialties and increased public awareness of the educational background of the physician. The profiles, which gave a good deal of personal information, such as the various hobbies of physicians, were effective in promoting the human aspects of the physicians, as well as the technological aspects of their practices ("Advertise Your Physicians," 1985).

Organizational logos have been used effectively by many health care providers. Easily recognized symbols can be used on organizational stationary, T-shirts, cards, brochures, bumper-stickers, organizational vehicles, or other items, to keep the organizational name/symbol before the public ("The Hospital Logo," 1983).

Another effective promotional tool was the establishment of a speakers bureau to promote the use of

the organization's professionals as guest speakers by community clubs, associations, or businesses (Speakers Bureau, 1982).

Direct mail-out of preventive health or wellness literature has been found to improve the community's level of awareness of the provider's services. One such mail-out was packaged to resemble a black bag and was stuffed with health information ("Direct Mail," 1985). The effectiveness of written material as a promotional tool has been well documented ("Poison Plant Poster," 1982).

Bold signs to mark the building or special places within the building, bus cards (installed on local buses), newcomer cards (to be sent to all new residents of a community), patient newsletters, and newspaper advertisements are all examples of the utilization of written material for promotion (Moser & Alpern, 1985). Other written promotional tools include a calendar printed with fitness/health information ("Physical Fitness," 1983) and a cookbook, which was a collection of employee's recipes ("Employee Cookbook," 1983). The calendar was a free service, but the cookbook was sold to consumers. Both prominently displayed the name of the provider organization, thus serving as promotional aids.

Particular health problems can be identified and effective programs developed and promoted by the provider

as a community service. One such program was begun for adolescents in response to a very high teenage pregnancy rate in one community. The community was involved in the development of the program, thus local acceptance of the program was achieved. The provider's monetary input was minimal. National acclaim followed the local enthusiasm, therefore the program proved to be a very successful public experience ("Activities in Social," 1983).

Innovations Relevant to Pricing

Health care providers have successfully altered their pricing methods to acheive marketing objectives or to create new opportunities/demand for services. In Michigan, an area troubled by acute unemployment, free care was given to promote a "good-guy" image to the public. Physicians in three cities organized and volunteered their time to provide either free or very low cost care to needy patients. Screening processes assured that the program was not abused. Some of the unemployed patients were so impressed that they became regular users of their volunteer physician once they become employed again. The media responded with positive coverage and the project proved to be successful. Overhead for the project was funded by grant money, but it was found that the only major expense was the telephone and the salary of the person who answered it (Early, 1982).

Health maintenance organizations (HMO's) have taken advantage of the pricing element via prospective payment to establish one of the nation's leading health care industries. The growth of HMO's in the United States is supported by businesses who have found them to be a less costly means of insuring employee health care than traditional insurance plans (Holoweiko, 1985; Traska, 1985; Keefer, 1986).

Special reductions in health care costs for particular groups has been the focus on some health care providers. One provider targeted the elderly population by offering a membership that guaranteed that the person would not incur any out-of-pocket expenditure if utilizaiton of the provider occurred. In other words, the provider agreed to accept only what the insurance policy of the aged person would pay. Promotional efforts for the pricing scheme included hard identification cards imprinted with health data (via microfiche), a brochure announcing/explaining the program, public service announcements, and streamlined processing for members when they utilized the facility ("Golden Care Plus," 1985).

A preferred provider organization (PPO) in California has found that their costs to patients can be reduced through cost-conscious behavior and have been attracting consumers on the basis of their comparatively

low charges. Currently, 6,000 physicians participate in that program, known as CaPP CARE ("Physicians Cost Cuts," 1985).

These examples have shown that the pricing element, as well as other elements of the marketing mix have been successfully manipulated by health care providers to cope with the market environment. One last area that has been used to aid marketing efforts is that of the internal functioning of the organization.

Miscellaneous Innovations

A relatively new service to patients is that of the patient representative. In the emotionally-laden field of health care, many times patients experience difficulty resolving problems within the medical system. These advocates of patients have been successfully difusing conflict, thus promoting patient satisfaction (Mailick, 1984). Another method of conflict resolution that has been used by providers is a systematic method of dealing with hostile community factions. Twelve specific steps to neutralize hostility were identified, listed, and then were successfully employed to deal with difficult situations as they arose ("Confrontation Politics," 1983).

Lengthy patient waiting time has been shown to increase patient dissatisfaction with care. Otway (1982),

contended that excessive waiting time is basically just poor time management and has developed better methods of scheduling which correct the inefficient scheduling processes. The use of time management techniques by physicians was also recommended by Mangan (1985).

One physician, whose actions to improve waiting time were failures, decided to improve the quality of waiting time. His large waiting room was divided and made more comfortable to patients. In addition, large television screens with video cassette recorders were installed. Cassettes of popular movies were made available for patient viewing. Consumer response was positive, therefore the provider felt he had compensated for lengthy patient waiting time (Baum, 1984).

To enable the provider to identify measures within their organization that would help contain costs, a cash incentive was offered to employees for their ideas to save money within their work environment. Basically, the program both boosted morale and rewarded cost-cutting ideas. In addition, it contributed to the organization's financial well-being ("Ideabank for Cost," 1982).

A recognition of the importance of the provider's image in marketing has led some care providers to aim marketing efforts towards employees. Satisfaction of employees within the organization has been shown to affect

the level of satisfaction of the care consumers. When problems of morale/attitude are recognized, efforts to remedy the problem can be identified. One provider discovered that by resolving a problem with a gorup of line employees, a drastic reduction in turn-over for that position occurred and higher levels of patient satisfaction were produced ("Marketing from the Inside," 1984).

Inservice training to teach employees communication skills has been successfully implemented to provide the skills needed to deal effectively with patients. These employee skills communicate a positive image of the provider to the targeted consumers ("Teaching Communication Skills," 1983). Employee newsletters and the solicitation of active employee input for such newsletters have also served to increase levels of employee satisfaction and have been shown to increase employee awareness of the scope of organizational activities ("A Look at Newsletters," 1982; "Newsletter Input Form," 1982).

In-house market research has been proven to be especially useful for gathering data for use in developing marketing strategies. Since staff members have extensive involvement with patients, their suggestions can provide possible marketing opportunities that might otherwise be undiscovered. In-house surveys have been used for this purpose. An attempt was made to inform the employees of

the results of an in-house survey, and the attempt appeared to further awareness of the marketing orientation ("Internal Market Research," 1982).

Another data collection method that has been used to identify market opportunities and to pinpoint strengths/weaknesses of providers is an image survey. Scales have been developed that adequately gather data from patients and employees to fulfill the need for marketing information ("Image Study," 1982).

Based upon information relevant to the patient population and the provider's characteristics, the marketing mix can be arranged so that optimal positioning of the provider in the marketplace can be accomplished. Creative use of existing resources, development of new programs, appropriate pricing policies, and effective promotion of the provider can help the organization compete effectively. As mentioned previously, attention to the internal operations of the organization can also provide opportunities for improvements that will aid marketing efforts.

c. Methodological Recommendations for Health Care Marketing Research

Systemic, empirical study is necessary to transfer marketing concepts into non-traditional marketing

environments; however, few studies of that type are present within health care literature. Market research can be a valuable tool for health care providers. Simply stated, market research is: "A formalized means of obtaining information to be used in making marketing decisions" (Tull & Del, 1976, p. 3).

Two major types of information can be utilized in market research--primary data, which is generated to help solve a particular problem, and secondary data, which is already available (previously developed/used for some other purpose). Both primary and secondary data have been found to boost decision making ability in medical group practice management. Baseline studies can be provided via uncomplicated means for immediate decision making or comparison studies (Manning, 1977, chap. 4). Research can identify information to facilitate marketing more readily than a technique such as managerial opinion without research. A measure of patient satisfaction is also necessary for good managerial decision-making (Clarke & Shyavitz, 1982). Mason (1984) agreed that the organizational planning process should be guided by an adequate information base.

In health planning literature, such as Spiegel (1978), attention was given to the fact that perceived need for services stimulated demand for the provider. Analysts

who can best determine the nature of needs of a group can more effectively meet those needs. Various methodological tactics have been used to accomplish that end. Of particular interest is the RUT approach, based on the assumption that those utilizing the service are representative of others in the community who need the service, but have not sought it. This approach was widely used to determine demand/need for services (Spiegel, 1978).

Base data collected for the RUT approach consisted of sociodemographic measures of characteristics such as age, race, sex, and income. The type of service used, referral sources, length of time treated, and other measures were also seen as important to decision-making. Records of the provider can be utilized to provide data, if needed. Data summarized into tabular form with tests of significance or correlation, where applicable, can yield a basis to identify priority needs of a specific population, thus facilitating recommendations for services to be offered (Spiegel, 1978).

Census data can be used once a population is defined to gain more information relevant to that group. In catagorizing a population's geographic location, census tracts or blocks can be utilized, which facilitates later use of census data for inferences specific to that population (Spiegel, 1978). Analysis can be relatively

simple, via the use of maps, charts, or other illustrations; or more complex, using many variables (Spiegel, 1978). Advantages of this type of approach include ready access to existing data, flexibility in data use and ease of updating the information (Spiegel, 1978).

The process of marketing which is generally followed by consultants in the area of health services usually includes determination of the market, determination of the level of patient satisfaction, determination of trends of use, demand, identification of referral source, and formation of plans on the basis of information obtained (Clarke, 1978).

Bresnick (1983) suggested that market structure analysis precede any marketing decisions. Steps he outlined were:

1. Definition of the market to identify those with interest in the product or service.
2. Attempt to divide that group into homogenous parts on the basis of like characteristics (segmentation).
3. Choose a segment to focus on and design the market mix accordingly. (pp. 144-146)

He also stated that surveys to obtain the needed information have been used successfully and can aid decision making, as well as enlighten management relevant to the likely response to service offerings.

Clarke and Shyavitz (1982) observed that day to day information obtained internally is readily available and

should be researched thoroughly before resorting to external data use. If significant questions exist after use of internal data, then research attempts should be expanded. Berkowitz and Flexner (1978) also felt that internal research should be utilized first. Another suggestion made by Clarke et al. (1982) was that findings must be statistically significant to be of value.

Sapienza (1980) noted the importance of collecting both demographic and psychographic profiles to aid marketing research. Whittington and Dillon (1979) also made that recommendation. Sapienza recognized that averages of demographic data relevant to the patient population, as well as measures of patient satisfaction were crucial in determining the marketing mix to be offered. He recommended both collecting patient information by quesitonnaire, and taking the following steps.

1. Describe the patient population.
2. Look at the local and state census data for pertinent data relevant to that population.
3. Determine patient preferences.
4. Reduce tendencies toward bias in studies by using an outside person, rather than staff to accumulate/analyze data.
5. Conduct the study at the provider site.

Sapienza noted the necessity of identifying whether

current patients are satisfied with care received, and recommended external data collection by professional consultants if declines in levels of patient satisfaction were found (during periodic patient satisfaction determinations). Segmentation of the patient population based on the combination of demographic and psychographic information has been accomplished and specific needs for services revealed in that process. Noted also was the importance of determining referral source, usually found to be friends, family members, or acquaintances. Pauley and Langwell (1983) and Menken (1983) also recognized the need to explore referral source.

Existing data within the provider setting (internal data), along with external data, can identify marketing problems and determine appropriate strategic responses. Internal information likely to be of value includes: utilization data (both total and specific service or provider of care), patient age, financial information, referral source, and a measure of the level of patient satisfaction. External/environmental information of use includes: characteristics of the service area, demographic distribution of the population, level of education, religion, ethnic background, market size, growth rate, public health statistics (such as mortality and morbidity statistics), competitive profiles of the area, care

reimbursement trends/legislation, and medical practice trends such as the use of alternative modes of care. Frequent examination of data of this type can reveal trends in the practice. Once a baseline is established, updating can be accomplished more easily. Analysis can reveal problems within the orgnaization, pinpoint opportunities that are present, and imply possible strategies to address both problems and opportunities. As a result of this process, the provider should become more knowledgeable about the population that is served (Clarke & Shyavitz, 1981).

Carey and Posavac (1982) also believed that this type of analysis is necessary, and utilized the Ware Patient Satisfaction Questionnaire to obtain data relevant to the levels of patient satisfaction and to point out areas of patient satisfaction that needed organizational attention.

Relationships between selected variables of sociodemographic nature and patient satisfaction scores have been measured in studies to identify problems and also have been known to improve public relations by showing patients that their opinions are valued (Nelson-Wernick, Currey, Taylor, Woodbury, & Cantor, 1981).

Merkel (1984) utilized the short form of Ware Patient Satisfaction Questionnaire to assess levels of

satisfaction for a current patient population and utilized the same questionnaire in another way to assess providers relevant to their perceptions of patient satisfaction.

Mitry (1979) stated that evaluation of consumer satisfaction should be achieved within the provider setting. Uhlmann (1984) cited that the information should be elicited at the first of the clinical visit, before the encounter with the physician.

Sweeney and Anders (1985) realized that once the basic in-house setting has been proven to be conducive to marketing the organization (such as limited patient waiting time), further marketing research should be done. Segmentation of the patient population to identify target markets, a realistic appraisal of the strengths and weaknesses of the provider, and determination of whether patients are aware of the benefits of the practice's services must be accomplished to recognize both problems and opportunities to reveal opportunities for marketing, a market analysis was recommended and a process suggested:

1. Assess what the provider is currently doing.
2. Assess resources (what can be offered).
3. Assess competition and whether the practice can be compared to competition favorably.
4. Secondary sources should be consulted to obtain data relevant to the size of the total available patient population.

5. Assess the characteristics of the current patient population and their source of referral.

6. Design services to fit the needs of patients.

Midei and Sanchez (1984) also supported the idea that providers need to accomplish market research. They described a three-phased market research design:

> Phase One: All accessible secondary data sources were analyzed. Literature pertinent to the topic was included.
> Phase Two: Two marketing surveys were utilized--one targeted the current employees of the health care provider, and the other survey targeted former employees of that provider (the topic of the study was nurse recruitment).
> Phase Three: Results from the first two steps were used to design a plan via the problems and opportunities revealed by the surveys. Both a marketing perspective and a financial perspective were used to create a final marketing plan. (pp. 105-113)

The techniques used in that study were not particularly expensive or cumbersome; therefore, the authors concluded that the same basic methodology might be adapted to a variety of settings relevant to health care provision.

Muller (1984) noticed many limitations of consumer research and urged health care providers against overestimating its importance, even though he recognized the advantages of a market orientation. Muller felt that the most valuable consumer research was in the hotel (meeting basic needs)/public relations area of health care, but warned that many surveys yielded stereotypical or biased results. The inclusion of open-ended questions can

possibly produce more useful results and decrease the possibility of bias (Black & Champion, 1976).

Competitive analysis was viewed as a futile area of research among health care consumers since most patients are not aware of all of their options. Another problem facing researchers is the stigma attached to some touchy health-related topics, a factor that may increase biased responses. Attitudinal scales may not be valid indicators of actual consumer behavior, thus attitudinal information must be interpreted cautiously. Failure of demographic studies to produce distinct market segments is also a possible drawback of health care consumer research. Muller believed that a fruitful source of marketing information is physicians because most services/treatments are prescribed by them.

In spite of Muller's reservations about the usefulness of consumer research, he offered recommendations to health care providers:

1. Generalized responses are not always of use in pointing the need for new programs. Often, needed facts can be obtained through secondary sources.

2. Research should be aimed at providers as well as consumers, because they may be aware of specific opportunities or problems.

3. Consumer surveys are useful to assess such areas

as friendliness, cleanliness, convenience, or other "hotel" aspects of the organization, because patients are able to evaluate these aspects of care, whereas other aspects of care may not be amenable to consumer evaluation (such as the technical quality of care). A consumer survey may indicate areas within the organization that need improvement, thereby enabling administration to better position the organization in the market by making needed changes.

4. Consumer needs/preferences for specific program offerings can also be learned through survey methods of research.

5. It is desirable for research to be as specific as possible (Muller, 1984).

Summary of Health-Related Literature

The literature reviewed thus far revealed major concepts of importance to this study. Some of the implications were:

1. A marketing orientation within health care settings is desirable and important.
2. A marketing orientation can be achieved by following specific recommendations.
3. The concept of patient satisfaction is a major concern when determining the goal of a marketing orientation.

4. Patient satisfaction is measurable and identification of the level of patient satisfaction with services can reveal opportunities and problems within the organization.
5. Demographic variables within the population served can be utilized to discover opportunities, identify trends of service utilization, and increase provider knowledge of the population served.
6. Segmentation of the population may be possible based on information gathered from current patient populations.
7. Secondary external data sources can be useful when used in conjunction with the provider's internal primary data.
8. Competitive anlaysis or other external primary data are not as useful to health care marketing research in the initial stages of research by the provider, and should only be used if other research data fail to produce the needed information.
9. Opportunities to satisfy consumer needs and to gain better market position for the organization can be identified through market research.

10. Numerous providers have developed consumer-oriented services/options for care in response to identified opportunities within the populations they serve.

The literature in this section provided valuable insight relevant to conceptual information, the current health care marketplace, and methodology appropriate for health care market research.

C. LITERATURE FROM BUSINESS ADMINISTRATION DISCIPLINES

Marketing has been a vital part of business management for many years, unlike the role of marketing within the health care field, which is a relatively new phenomenon. Management and marketing disciplines offer extensive literature that could be considered relevant to this study. A sample of that literature follows.

1. Literature Related to Content

According to Robertson (1978) strategic marketing is the basic response of business to consumers. Specifically, the consumer's needs/interests should be actively identified and incorporated into organizational strategy. This response was said to promote commercial success as well as to decrease legislative or other measures of external regulation. From a business viewpoint, the

marketing concept focuses upon seeking out the wants, needs, and values of a particular market segment and planning to satisfy those identified needs more effectively and fully than competing organizations. To achieve that goal, the utilization of market research, the development of an organizational structure that is readily responsive to changes within the market, and a sensitivity to the needs of its particular market target are necessary. Products should be developed in such a manner that it becomes unnecessary to coerce the consumer. Consumer satisfaction was said to be the key factor to marketing success. Robertson provided a comparison of the marketing orientation to the product (selling) orientation that was very similar to the comparison of the marketing concept to the selling concept by Cooper that was examined earlier in this paper.

Leontiades (1984) and Lovelock (1984, chap. 7) stated that management has realized that the integration of market planning processes with corporate planning is important to overall organizational performance.

Broughton (1983) documented that it is within the scope of small businesses to conduct relevant market research. He noted that industrial marketing research usually involves professionals, but that relatively untrained personnel can conduct small business marketing

research that is within the limits of available resources. Obtaining information that reduces the risk of making poor marketing decisions was viewed as the basic task of market research.

Marketing questions that small businesses tend to address include who their customers are, what benefits are sought by those consumers, what is the nature of consumer expectations/needs, why consumers are utilizing that particular business instead of a competitor, and whether there are identifiable market segments within the population served. Also, the financial attractiveness of serving particular market segments is usually evaluated. Even though market research must be tailored to fit the particular organizational needs, research steps were suggested:

1. Establish the goals/objectives of the research.
2. Gather secondary data relevant to those objectives.
3. Obtain cost effective primary data.
4. Pilot test the study.
5. Try to simplify the study as much as possible.
6. Ongoing research should be done. In other words, follow-up studies are needed rather than one-time-only efforts (Broughton, 1983).

Bonoma (1984) noted that much literature is

available relevant to devising marketing strategy, but that there is deficit of information about successful application and implementation. Suggestions for successful implementation included:

1. A strong sense of direction in marketing policies is desirable.
2. Concern about the consumer and a continual appeal to the consumer must be a predominent theme of marketing implementation.
3. Where deficits in organizational structure constrain marketing goals, a willingness to change, or otherwise deal with those deficits is necessary.
4. Be extremely "picky" about which marketing strategies to implement (research them thoroughly), but once a decision is made, allocate resources sufficient to facilitate the success of that venture.
5. The concentration of organizational effort/expertise should be on a few quality market offerings in order to position them effectively in the marketplace.

Aaker (1984) felt that the ultimate strategic necessity is to develop/maintain competitive advantage in the market that is served. Each business should identify

their particular competencies or assets and exploit them in a manner that will provide a sustainable competitive advantage. Three generic strategies were thought to be the key to providing a sustainable competitive advantage: Low cost, differentiation of products, and a focus on particular market segments or a focus on particular products.

To understand constraints/threats (both present and potential), and to identify opportunities, external analysis is needed. Four distict sections of external analyses were defined:

1. Customer (segments, motivations, unmet needs)
2. Competition (identify competitors, their performance, their objectives, their strategies, their culture, their pricing mechanisms, their strengths and weaknesses)
3. Industry (attractiveness, key success factors, barriers to entry, pricing variables, trends within the industry, its growth rate, the industry's size and structure)
4. Environment (opportunities, strategic questions, threats)

Also a self analysis of performance, strategies, and problems was seen as useful. Internal assessment of people who are important to the organization, internal culture,

internal work tasks and internal systems as well as cost analyses involving product portfolios, strengths, weaknesses, constraints, questions, and problems were also listed as possible areas of study to obtain meaningful marketing information (Aaker, 1984).

The author is indebted to Michman for much of the work in this section. See: Michman, Marketing to Changing Consumer Markets: Environmental Scanning. New York: Praeger Publishers, 1983.

Michman explored a concept that seems to be of importance to all organizations who must respond to dynamic environments:

> Failure to anticipate environmental change is potentially dangerous for the business, yet few firms have integrated environmental scanning and monitoring into their planning. (Michman, 1983, p. vii)

The ability to perceive trends and alter organizational strategies to fit expected changes is necessary in competitive settings. Businesses generally make decisions with a degree of uncertainty; but a continual data supply relevant to current legislation, technology, demography, competition, and culture/society can reduce the possibility of poor administrative decisions. Environmental scanning is the term Michman used for this recommended ongoing process (Michman, 1983, preface).

Marketing environments are continuously changing with the introduction of both threats and opportunities. The use of recognized demographic changes has contributed to the success of major industries, such as the American Telephone and Telegraph system, which utilized demographic data as a major part of planning. Consideration of an array of environmental variables is necessary when designing marketing strategy. Also, steps to segment the market and an analysis to identify market opportunity are components necessary for market planning. According to Michman, marketing planning is a complicated process, but can be generalized as follows:

1. Assessment of environmental trends should take place in the early stages. This should include such factors as regulatory considerations, technological variables, general economic trends, and competitive analyses.
2. The strengths and weakness of the organization should be identified.
3. The goals of the organization should be identified or re-examined. If there are major discrepancies between the goals and the current status of the organization, precedents for planning efforts may be obvious (Michman, 1983, chap. 1).

Generally, the broad marketing environment can be catagorized into four major areas: economic-demographic, sociocultural, politico-legal, and technological. Scanning involves the assessment of trends in each area and studying the potential impact of those trends on the marketing actions of the organization. Michman recommended that the following questions be asked:

- What effect will forecasted trends in the size, age distribution, and regional distribution of the population have on the business?
- What changes are occurring in consumer life styles and values that have a bearing on the company's target markets and marketing methods?
- What is happening to market size, growth, geogrpahical distribution, and profits?
- What are the major market segments? What are their expected rates of growth? Which are high opportunity and low opportunity segments? (Michman, 1983, p. 6)

The marketing mix of the organization must be constantly re-evaluated and redesigned to respond to environmental changes. This can be accomplished by limitation of supply to access to particular market segments, modification of pricing that will complement economic trends, or more frequent changes of the marketing mix. Actual implementation of strategy could involve basically any aspect of the organization. Personnel selection, coordination of resources, motivational tactics, or promotinal efforts are all examples of variables that can be manipulated to facilitate marketing. Recent innovative responses within the health care system have

resulted from broad environmental change (Michman, 1983, chap. 1).

Complex forecasting techniques are available to administrators, but often are either too sophisticated or costly to be practical. Michman believed that environmental scanning and the application of relevant trends to the characteristics of the organization could contribute to the identification of market opportunities (Michman, 1983, chap. 2). Even though much of organizational planning is reliant upon intuition, adequate information relevant to the environment can facilitate decision-making (Michman, 1983, chap. 9).

Kotler, Gregor, and Rogers (Kerin, 1984) suggested marketing audits to help businesses identify measures that could increase organizational capacity to effectively compete. A definition was provided:

> A marketing audit is a comprehensive, systematic, independent, and periodic examination of a company's or a business unit's--marketing environment, objectives, strategies, and activities with a view of determining problem areas and opportunities and recommending a plan of action to improve the company's market performance. (Kotler, Gregor, & Rogers cited in Kerin, 1984, p. 29)

Basic characteristics were emphasized by Kotler et al. First, the scope of the marketing audit should be broad, rather than narrow. Preferably, it should be conducted by someone outside the business, or at least outside of that particular area of the business. It should

also be an ongoing process, rather than a one-time effort. Frequently, management does this type of assessment only if problems persist, but if done at untroubled times, it can serve as an indicator of potential areas of change that could enhance organizational functioning, rather than as a diagnostic or problem-solving tool. After determining the objectives of the audit, sources of data must be determined. Consumers were viewed as a key source of information, since companies do not always understand consumer needs or perceptions. Another major principle of the marketing audit is environmental assessment to determine possible marketing opportunities. An examination of organizational characteristic is also important.

Marketing audits were thought to be of use to service organizations as well as other businesses. The process of assimilating the data obtained through a marketing audit can reveal needed marketing action, and can be achieved by a staff who is basically inexperienced in marketing practices. In addition to the educational and diagnostic value of an audit, possible other outcomes include the discovery of inappropriate marketing goals, inappropriate marketing costs, inappropriate strategies, or needed organizational improvements.

Shapiro and Bonoma (1984) felt that a better understanding of the market could be achieved by

segmentation research. In addition, segmentation research can aid in deciding which segment to target (which population best fits the organization's capacities/resources). Finally, segmentation research can facilitate managerial development of plans and strategies to meet consumer needs, which produce competitive advantage. Problems that may be encountered in segmentation research are:

1. Segmentation of the population is not possible (or is too costly to be feasible).
2. After the fact segmentation can occur (markets that have been tapped by the organization are discovered later).
3. Superficial segmentation, rather than a true segmentation may result. This could lead to a false sense of security.
4. Disorganized segmentation could result in failure to identify needed strategies.

Generally, the authors proposed that the best approach was to use a simple segmentation criteria for initial research, then progress to very complex bases only if necessary. In order of suggested use, segmentation criteria characteristics were demographics (location of consumers, age, sex, and so forth), operating variables (consumer's preferences regarding the ways of doing business), purchasing approaches (the consumer's purchasing

behaviors), and personal characteristics (the very personal aspects of consumers such as personality or life style). Bonoma and Shapiro also noted that the levels of segmentation characteristics coincide with the degree of intimacy of the knowledge. The cost of segmentation research rises with the level of intimacy of consumer knowledge obtained.

Segmentation of the population served as a basic concept of marketing. Segmentation represents a means of operationalizing marketing concepts, provides guidelines for marketing decisions, and suggests possible resource allocations. A major rationale for market segmentation is the expected increased profitability. There have been many theoretical approaches to segmentation, but practical applied segmentation research typically is either a priori segmentation design (involves a management decision about which variables to utilize for segmentation attempts, then reports estimated size of the segment and characteristics of the segment) or a clustering-based segmentation design (attempts to segment a population based on a group of related variables, then also reports the estimated size and other characteristics of that segment) (Wind, cited in Kerin et al., 1980).

Most segmentation studies have been for consumer goods or industrial markets. Wind felt that more

research is needed to enhance practical application of segmentation research to these and other types of markets.

Questions relevant to organizational issues such as what price level is appropriate, which new products to offer to what population, and which advertising methods are most appropriate, can possibly be answered, in part, by segmentation research. At least segmentation research can give the organization's management personnel a better idea about how particular consumer groups are likely to respond to organizational strategies. It can also aid the identification of target markets for the organization.

Wind noted that both baseline (one-time effort) and ongoing segmentation studies can prove useful to organizational management. Variables used for segmenting a population should be defined on the basis of the specific needs of the organization and the current level of knowledge relevant to that particular field. Segmentation requires a basis for segmentation (a dependent variable) and descriptors (independent variables). Many variables have been used for segmentation studies, but for a basic understanding of the market served, brand loyalty, usage patterns, consumer needs, consumer benefits sought, or a combination of those was thought to be appropriate. Generally, variables are usually classified as general characteristics of the consumer or situation-specific characteristics of the consumer (Kerin et al., 1980).

Some markets are not amendable to segmentation--in other words, there may be no significant differences among the population served. Segmentation research is based on the thought that the particular market is heterogeneous. A two-way ANOVA was recommended for initial efforts regarding the segmentation of a market. Another consideration that was mentioned was the cost of the research. The major expense was cited to be data collection.

Both secondary and primary data have been used for segmentation studies. Secondary sources that Wind considered useful included aggregate data based on demographic measures such as census or zip code delineations. Primary data collection through interview, or questionnaire technique was also found to be useful. It was suggested that for some uses, the success of new ideas that are generated depends more upon the creative input than on the findings of segmentation research (Kerin et al., 1980).

Lovelock (1984, chap. 1) noted that in the United States, the service-oriented businesses are more than twice as numerous as manufacturing businesses. He felt that many aspects of marketing are similar for both types of businesses, but that service marketing is in some ways unique. Specific opportunities that are present within the service industry now were listed:

- Easier entry to specific product markets
- More freedom to compete on price

- Removal of many geographic restrictions on service delivery
- Incentives to differentiate services in meaningful ways
- The ability to use the mass media to promote professional services. (Lovelock, 1984, p. 2)

Also, specific restraints in the service industry were mentioned, as well as the effects of consumer loyalty and heightened competition. Another restraint was that service products are highly tailored to fit consumer need, many times through population segmentation. For these reasons, marketing skills for service marketing are becoming more important (Lovelock, 1984, chap. 1).

Berry noted major differences between marketing of services and marketing of consumer goods:

> Services are relatively intangible, produced, and consumed simultaneously, and often less standardized than goods. These unique characteristics of services present special challenges and strategic opportunities to the servcie marketer. (Lovelock, 1984, p. 29)

Berry also suggested that the internal marketing of organizations is extremely important in high-contact service businesses, such as health care. Conceptually, internal marketing implies that by maintaining a high level of satisfaction among internal consumers (personnel), an organization facilitates its ability to satisfy external consumers. In other words, an organization must first sell itself to the internal customers before it can sell itself to external customers.

According to Berry, other opportunities for service

organizations include customization of services (to fit particular market segments), and management of evidence (attention to tangible aspects of the services offered). Management of evidence includes the physical services environment, the actual appearance of providers, the pricing policy, and linking services to particular goods. Other measures to enhance the tangible aspects of services include synchronizing supply and demand or manipulating supply and demand (by alternating specific elements of the marketing mix) (Lovelock, 1984).

Rice, Slack, and Garside, as cited in Lovelock (1984), noticed that the hospital industry had characteristics that are common to the hotel industry, and that specific marketing questions relevant to hotel mrketing research were applicable to health care marketing research:

1. What are the characteristics of our consumers? Are we serving a particular market?
2. Are there specific reasons that our customers utilize this organization instead of a competitor?
3. What are these consumers seeking?
4. Are there changes this organization could make to better meet our current consumer's needs or better meet those needs of a consumer segment that we would like to serve?

5. What promotional design would best reach the target market?
6. What communication media would best deliver that promotional message to the desired market?

Market research within service organizations can be cost-effective, focusing on existing data and information relevant to customer satisfaction. That type of data can be useful to ongoing information systems involving the analysis of the characteristics of the market served, analysis of sales volume, promotional research, or motivational research.

Also noted by Rice et al., was the uniqueness of health care marketing. In particular, they noticed the fact that business marketing techniques are not always appropriate or useful to marketing health care services.

Several key suggestions were offered to guide marketing functions:

1. The central focus of the organization's goals and profitability is on the consumer.
2. Marketing is a process and an organizational orientation.
3. Marketing is behavioral in nature. Generally, to achieve marketing goals, behavioral change of both provider and consumer are necessary.
4. The marketing orientation (toward positive exchange relationships) must be adopted by each member of the organization. (Rice et al. cited in Lovelock, 1984, pp. 119-125)

In spite of literature that suggests many similarities between business marketing and services

marketing, Lovelock also noted the generic differences between goods and services:

1. The nature of the product is different, because a service is directed at either the consumer or the consumer's possessions.
2. Different production methods are used. Many times the consumer is actively or passively involved in the production of a service.
3. There is no inventory process in services. A flow of services is actually wasted unless the consumers are there to take advantage of them.
4. Lack of physical distribution channels is apparent for many services. Scheduling is more important than the location.
5. There are differences in determining costs for the purpose of pricing. It is sometimes difficult to determine fixed and operational costs of service production.

There are also contextual differences that are apparent when comparing goods and services:

1. Generally, a narrow definition of marketing is found within service industries. More hesitancy is present when including marketing tasks such as product development, site locations, and pricing. Many times, service organizations feel that marketing relates just to advertising or public relations.
2. In service organizations there is usually a lack of appreciation for marketing skills.

3. The organizational structures are different. Service organizational structure usually does not facilitate marketing efforts.
4. Service organizations usually lack data relevant to competitive performance.
5. The impact of government regulation or deregulation as well as professional ethics may impede marketing efforts by service organizations, but marketing has become more important to service organizations recently.
6. Constraints and opportunities of service organizations differ from those that exist for businesses. (Lovelock, 1984, pp. 479-488)

2. Literature Related in Methodology

Tull and Del (1976, chap. 1) described a marketing decision-making system composed of three major steps which were: problem identification, problem selection, and problem solution. The output, problem solution, consisted of two parts. The first portion, the development of alternatives to meet objectives, called for the creative input of the decision-maker, thus it was recognized that systems utilized for marketing management decisions are incomplete without the creative input of the person(s) using that decision-making system. The second portion of the final step of the decision-making system that was described was the evaluation of those options created by the input of both quantitative data and qualitative data.

Tull and Del supported the development of systems or models to aid managerial decision-making in the area of marketing:

> Research focuses attention on possible actions that probably would not have been recognized in the absence of research. . . . The very discipline of objective recording of data forces people to look at things they would never have looked at otherwise and to question assumptions that would not have otherwise have been challenged. (Roberts as cited by Tull & Del, 1976, p. 7)

Some advantages of carrying out research within the company, utilizing people that are familiar with the organization, were pointed out. Greater familiarity of the organizational operations, more contact and control during the research process, and retention of the experience within the firm after the research project--all are benefits of the use of internal mechanisms to accomplish marketing research. Advantages of using outside sources were the availability of specialists to do the research, the opportunity for greater objectivity by the researcher, and possibly substantial savings relevant to the cost of research (Tull & Del, 1976).

Tull et al. felt that the use of a model to aid decision-making relevant to marketing is a desirable way of relating a needed outcome to the different variables that affect the outcome. The use of secondary data for marketing research was promoted because it can be gathered easily and inexpensively, and because it can be used in conjunction with primary data. An example would be the use of primary data to identify a target market, then using

census data (secondary data) to learn more about that particular population. The only major problem that was mentioned relevant to the use of secondary data was the fact that since secondary data was developed for another purpose, it may not always be accurate or relevant to the problem at hand (Tull & Del, 1976, chaps. 2; 4).

Tull et al. cautioned marketers about the possible destructive nature of marketing research, because the process can induce change in the population that is studied, and that the change may not be predictable. Also, it was noted that market research should be done only if its value is greater than the cost of obtaining the needed information (1976, chaps. 3; 5). Tull et al. justified the use of attitudinal measures for marketing research (1976, chap. 10). Segmentation research was also discussed and many possible bases for segmentation of populations were given. Included were geographic, demographic, socioeconomic, psychographic, and product-related variables. A suggested research design for segmentation studies was a cross-sectional design, described as the most common form of segmentation research, which usually involves a one-time survey or single period observation. Time-series cross sectional combination, which utilizes information from successive observations or surveys, is another possible design for successive observations or

surveys. This design is much more complex and costly (1976, chap. 15).

Goretsky (1983) postulated that although information design systems must be specific to the needs of the user, it is feasible to formulate a generalized design that encourages marketers to develop their own particular models specific to their organizational situation. Four major generic concepts were explored from which a system could be developed.

The first major concern by Goretsky was an understanding of the current situation of the organization, including such aspects as reclarification of the nature of the business (what needs does the company fulfill, consumer identification, and consumer trends), whether profit is adequate, and whether consumers are satisfied. Decisions relevant to appropriate means of collecting this information must also be made.

The second major concern involved exploring corporate desires relevant to the future, such as organizational goals and target markets. The considerations of strengths, weaknesses, and needed resources is important. Constraints to meeting the organizational goals must also be considered.

A third concern involves competitive anlaysis (positioning with respect to competitors) and

identification of macro-trends, like government regulations, that could either stifle or support competition.

Once the three concerns have been addressed, the organization must consider how goals should be achieved. Identification of opportunities via an understanding of what is happening in the marketplace is necessary. This can be achieved by analysis of eocnomic, technical, social, and political variables/trends. A determination of which opportunities should be pursued involves evaluation of each, including measurement of costs and benefits. Information to facilitate the decisions must be gathered, therefore data relevant to consumers, competition, or government action should be reviewed. In summary, Goretsky set forth major generic concerns, but suggested that the organizational situation should dictate the development of systems specific to organizational needs (Goretsky, 1983).

Shultz and Zoltners (1981) believed that gaining a better understanding of marketing decision making is a desirable research goal. Most decision process research has actually impeded development of generalization relevant to marketing research. Most earlier methods have been specific to the level of an individual decision maker, but for the purpose of building models, this level of specificity is not possible. The authors felt that more of

a summary method is necessary for organizational decision processes and believed that marketing decision models could enhance manager's understanding of information use and decision making (Shultz & Zoltners, 1981, chap. 2).

Shultz et al. noted the relevance of subjective information to marketing problems:

> A decision-maker facing a marketing problem uses both specified and unspecified decision criteria. Market share, profits, and sales are examples of specified criteria. Generally, decision models are built upon specified criteria. However, decision makers usually incorporate unspecified criteria (for example, organizational, political, and interpersonal factors) into their decision making. Frequently, unspecified factors may even dominate specified factors. The integration of assessment and analytically assisted decision models would facilitate decision making by using both criteria. The analytically assisted model would be driven by the specified factors and the assessment model would be used to explore the consequences of decisions based on unspecified factors. (Shultz & Zoltners, 1981, p. 73)

The authors felt that model building should prioritize implementation, with preference given to methods that are practical or operational, rather than conceptually or theoretically appealing. When listing steps for strategic planning to be related to model building, the need of creative input was emphasized. The use of market research techniques to gather data relevant to consumer's perceptions/needs was suggested. Also the need for information about the environment and competitors was pointed out. The authors promoted a "user-oriented"

marketing information system to provide continuous data for management. Models to act as guides for obtaining the needed information should be developed specifically for the organization's unique needs (Shultz & Zoltners, 1981, chap. 2).

Fitzroy (1976) explored the marketing decision making process and decided that it has two major components which are interrelated: problem-finding and problem-solving. He found that analytical methods to aid diagnosis and generate solutions could support the decision making process, and suggested that marketing models be designed to enable managers to make decisions effectively.

Criteria for such models were given:

1. The model must be understood by the manager. It must be appropriate to his/her level of expertise, he should be able to communicate with the model in terms of its structure and changes that might be necessary. Also, the manager must have confidence in the potential output of the model.
2. The model must be perceived as useful and should be robust (likely to yield logical answers). Additionally, the model should incorporate the subjective input of the manager. Marketing problems may be difficult to quantify, so

subjective judgments are usually necessary, but the inclusion of quantative elements can produce better results than a primarily intuitive approach.

The modeling process includes three stages:

1. Conceptualization: The problem should be formulated on the basis of known concepts and interdependencies between them. The variables to be predicted should be specified.
2. Operationalize: The concepts and their relationships should be operationalized. This process tends to be a major problem in developing marketing models. The efficacy of a model, however, is limited by the process of measurement. A model that is efficacious could be proven useless due to poor data input.
3. Analysis and Testing of the Model: Many model builders ignore the problem of implementation, thus many models are not practical. Shultz and Zoltners (1981, chap. 2) also noted that models must be usable, that specificity to the particular organizational needs can contribute to the practicality of models.

Any time a marketing model is constructed, many simplifying assumptions are made, so that testing of the

model is difficult, but a simple test is its face validity. A stronger test of a model is its performance validity (Fitzroy, 19876, chap. 1).

When building marketing models, it must be considered that marketing is not a passive task, rather attempts to modify consumer behavior are made via manipulating controllable variables (Fitzroy, 1976, chap. 3). The fact that consumers are different complicates marketing attempts; therefore, the concept of segmentation must be considered (Fitzroy, 1976, chap. 4).

Basically, market segmentation is the process by which allocation of resources is based on identifying segments within a heterogeneous population. An attempt to define sub-markets within that population is based on identification of homogenous traits of consumers, identifying specific sub-markets (segments), then developing marketing strategies for each segment identified.

There are two interrelated components to this process: strategic segmentation and analytic segmentation. The strategic component involves the development of a marketing strategy for particular segment, or allocating specific organizational resources to different segments. The analytical component involves developing means of identifying those segments of sub-markets.

Two approaches to segmentation that complement each

other are consumer segmentation and product segmentation. Consumer segmentation attempts to group consumers according to their personal traits or selected characteristics. This type of segmentation is necessary to define target markets.

Product segmentation attempts to define groups or consumers according to product attribute or according to consumer's responses to particular products. Product segmentation can serve to define how different brands of products are perceived by consumers. Segmentation research may be used to:

1. Position an existing product more effectively.
2. More effectively position a product by targeting a more limited market.
3. Reduce cannibalism between two similar products, by separating them (reduce the tendency of a particular product to draw consumers away from a similar product of the same organization).
4. Identify gaps in the consumer market that may represent new marketing opportunities.
5. Identify new consumers.

In early stages of segmentation research, the basis of consumer segmentation can be very broad, such as age or sex. Later, research attempts might be more complex, involving more personal characteristics, such as consumer's personality traits. Demographic variables such as sex,

social class, educational level, and marital status or socioeconomic variables, such as income or occupation may be used for the purpose of segmentation. Those variables tend to be good bases for segmentation attempts because they are easy to use and because secondary sources of data relevant to those variables are usually available. Personality and lifestyle variables can also be used because they infer particular life patterns based on activities, interests, and opinions.

Specific segmentation methodology that can be used includes cross classification (independent variables versus dependent variables), multiple regression techniques (to search for descriptor variables) and various clustering techniques (Fitzroy, 1976, chap. 4).

Naert and Leeflang (1978) felt that a major benefit of building marketing models is that it leads to decisions that will more adequately fulfill organizational goals. Another benefit is that the models force managers to be more precise in their description of marketing functions. These more precise decisions (over a period of time) should lead to a better understanding of organizational problems. Marketing models may also serve as diagnostic instruments to reveal problems, because differences between organizational perception of the operating environment and the real environment may often be discovered via facts

brought forth by the model. The use of marketing models can improve decision making processes by helping to determine what information is needed and by revealing how data should be collected. They can also improve the process of dealing with existing information. Through the use of marketing models, managers can provide a framework to guide discussions or reports that become necessary for evaluation purposes. A more beneficial allotment of managerial time is another possible result of developing a practical marketing model.

New product ideas or market opportunities can be found through ideas presented by personnel within the organization, consumers themselves, or market research relevant to either consumers or products. Many complex screening processes have been utilized by business firms to screen new opportunities to reveal which are worthy of continued evaluation (market opportunity analysis). Generally, screening criteria are identified by the organization and are relevant to corporate goals and resource capabilities. Break-even analysis, discounted cash-flow models, and simulation models are some of the methods used within businesses to evaluate opportunities that have been identified (Cravens, Hills, & Woodruff, 1981, chap. 10).

Woodruff (1976) noted that many firms do not have a

systematic means of evaluating market opportunities or making decisions relevant to those opportunities. Market opportunity analysis should provide quantitative forecasts, which yield the sales potential of particular identified opportunities. In addition to quantitative forecasts, management also needs qualitative information such as demographic and psychographic profiles of the target market.

Woodruff (1976) described a systematic method of market opportunity analysis that involved several major steps. The first, determination of opportunity, was based on identifying the size of the market, the requirements for satisfying the needs of the market, and the extent and quality of service to that market by competitors. Demand analysis, another step of the process, evaluated the actual demand for the service/product. Market segmentation analysis was noted to be a key component of the market opportunity analysis. Industry analysis generally assessed the trends relevant to that particular industry, common practices of the industry, the growth rate of the industry, and so forth. Competitive analysis involved the assessment of competitors and was useful in the process of analyzing opportunities. Channel analysis, another relevant factor, involved the assessment of distribution channels for the service/product.

The market opportunity analysis process was described thoroughly by Cravens, Hills, and Woodruff (1981). It was pointed out that before a market opportunity analysis could be useful, new product ideas (opportunities) must be identified (chap. 5).

Summary of Business Administration Literature

Although it was made clear that not all of the business marketing concepts are applicable to health care marketing, it was also apparent that some of the concepts are of use to health care organizations. Some of the ideas mentioned in the review of health related literature were explored in more depth within the business literature. Since health care marekting is not a well developed area, it is clear that much is yet to be learned about the application of marketing concepts to health care delivery organizations. Because of the lack of studies relevant to health care marketing, the inclusion of business administration literture to this review aided the development of the study.

CHAPTER III

METHODOLOGY

A. OVERVIEW

The primary purpose of this study was to develop a model of an internal assessment system to identify market opportunities for medical group practices.

The study sought to address the following research questions:

1. What theoretical model contains the most valid components necessary for internal identification of market opportunities within medical group practices?
2. How can that theoretical model be applied in a medical group practice setting?
3. Can specific market opportunities be identified as a result of the application of the model in a medical group practice setting?
4. What revisions of the model were suggeted by the application of that model within a medical group practice setting?

The following sections describe the manner in which each of these questions was addressed. An outline of the methodological steps needed to apply the theoretical model

to a medical group practice setting will follow. Each methodological step will then be discussed.

B. SUMMARY OF METHODOLOGICAL STEPS

The following model summarizes the basic methodology utilized to address the research questions cited above.

C. DISCUSSION OF METHODOLOGY

The following discussion provides greater detail relevant to the methodology utilized to apply the theoretical model to a medical group practice setting. The sequence of the discussion follows the model presented in Figure 1.

1. Literature Review

Chapter II, a review of the related literature, explored literature from both health-related disciplines and business administration disciplines. Health-related literature provided insight relevant to conceptual information, the current health care marketplace, and some methodological ideas appropriate to health care market research. Literature from business administration disciplines provided a more in-depth exploration of some of the basic concepts of marketing that were found in the health-related literature. Because health care marketing

Theoretical Model	Methodological Model
1. Literature Review	Review of Related Literature (Represented by Chapter II)
2. Selection of Population	Identification of Clinic Desiring to Establish a Marketing Orientation
3. Identification of Needed Information/Data Collection	Literature Review (Represented by Chapter II)
A. External Secondary Data	Data Collection and Analysis
1. National Trends	Literature Review (Chapter II)
2. Local Trends	Local Statistics (Census Data and Other)
B. Internal Primary Data	Data Collection and Analysis
1. Patient Data a. Psychographic	Ware Patient Satisfaction Questionnaire
b. Demographic	Provider Demographic Profile
2. Provider Data a. Psychographic	Revised Image Study (Schoenfeldt) and Adapted Ware Questionnaire
b. Demographic	Provider Demographic Profile
4. Analysis of Data	Application of Statistical Tests: Analysis of Variance, Simple Enumeration, Chi-Square, Appropriate Descriptive Statistics, and Other
5. Identification of Market Opportunities	Results of Data Analysis plus Expert Opinion/Creative Input
6. Identification of Additional Research Needed	Additional Research Questions Relevant to the Study Made Apparent by Application of the Methodological Steps

Figure 1: Model to Identify Market Opportunities Within Medical Group Practices

is not a well developed area of study, the inclusion of business concepts expanded the theoretical and methodological base of the study. Market research priorities needed to apply the model to a medical group practice setting were revealed by the literature review.

2. Selection of Population

For the purposes of the study, a multi-specialty group practice in the southern portion of the United States was chosen. The population of the area surrounding the practice is generally a rural one. The city in which the provider is located has a population of approximately 70,000. At the time of the study, the group practice included 41 physicians, all housed in one building, with the exception of several small satellite clinics. Family practice, specialized, and subspecialized physicians as well as numerous support services are found in that clinic. X-Ray Services, Laboratory Services, Physical Therapy, Pharmaceutical Services, Audiology, Minor Surgery, Education, Respiratory Therapy, and other services are found in the main clinic. Ancillary personnel include administrative, housekeeping/maintenance, and business service personnel. The clinic was chosen because it was representative of a group practice that was interested in the development of a marketing orientation.

3. Identification of Needed Information/ Data Collection

A. External Secondary Information

The review of related literature, as previously mentioned, identified specific market research priorities. Categorically, both internal and external data were cited as useful in the determination of market opportunity. External secondary data, such as census data, State Board of Health Statistics, and other health-related data were needed to establish trends and factors relevant to the clinic's operation. Description of macro-environmental trends (those trends of national importance to health care providers) and micro-environmental trends, which relate to regional, state, or local variables was accomplished by collecting information available through public sources. Analysis of that information was achieved by discussion, listing, and where appropriate, tabular summary.

B. Internal Primary Data

Demographic and psychographic information from both the patients and provider were needed for the study. The Ware Patient Satisfaction Questionnaire was used to determine the level of patient satisfaction and The Patient Demographic Profile was used to obtain an analysis of

patient's demographic characteristics. The Health Care Provider Questionnaire was used to collect psychographic and demographic data relevant to the provider population.

The Ware Patient Satisfaction Questionnaire consisted of a 43-item questionnaire that can be answerd via a Likert scale, including repsonse categories: Strongly Agree, Agree, Not Sure, Disagree, and Strongly Disagree. The statements cited to evoke the responses fell into six subscales which have been found to define patient satisfaction, including Access, Availability of Resources, Continuity of Care, Finances, Doctor Conduct, and General Satisfaction. The scale was developed by Ware, Snyder, Wright, and Davies (1976) during a study funded by The National Center for Health Services Research and Development, and has undergone numerous revisions and field tests over a six-year time period. Pilot testing involved twelve studies over a four year period, and utilized sample sizes ranging from 363 to 640, with widely varied population sociodemographic characteristics. During pilot studies, the average response time for the instrument was 8 to 9 minutes, but tended to be longer for respondents that belonged to low income or low educational status groups (Ware, Snyder, Wright, & Davies, 1983). The content validity of the instrument was based on over 100 published studies defining the concept of patient satisfaction, as

well as the consultation of experts. Reliability by the Test-Retest Method was found to be .57-.62 for the subscale of Availability, .59-.62 for the subscale of Accessibility, .59-.64 for the subscale of Continuity of Care, .62-.69 for the subscale of Finances, .62-.70 for the subscale of Conduct of Doctor, and .64-.70 for the subscale of Overall Satisfaciton (Ware, Davies-Avery, & Stuart, 1978). A copy of the instrument may be found in Appendix A. Permission for use of the questionnaire was obtained from the authors, with copies of the relevant correspondence appearing in Appendix B.

To obtain the needed demograhic data from the patients, The Patient Demographic Profile was developed by the researcher to obtain characteristics of the patient population which are known to be of importance to health care market research: geographic location of patient's home, age, sex, spouse/dependent information, insurance coverage, referral source, and date of first utilization of the facility (Hill, 1983; MacStravic, 1977a). Other characteristics found to be important were race, educational level, and economic status (Michman, 1983, chap. 8; Stanton, 1982, chap. 4; Rosenberg, 1977, chap. 7). Multiple choice items were utilized to obtain appropriate responses. Further information relevant to the construction of the instrument may be found in Appendix C,

as well as a copy of the preliminary and final instrument. A pilot test of the preliminary instrument was accomplished utilizing ten patients representative of the population. The pilot test population was asked questions relevant to the comprehensibility of the instrument, ease of response, and readability of the instrument. The amount of time necessary for administration of the instrument was also assessed. An analysis of data collected in the pilot investigation was used to construct the final form of the instrument.

The Health Care Provider Questionnaire was formulated by the researcher to obtain information relevant to provider attitudes about the strengths and weaknesses of the medical group practice. The instrument was constructed through revision of an Image Study developed by Schoenfeldt and Seale (1982) for use by Lourdes Hospital, Paducah, Kentucky. Nine separate surveys, as well as exploratory interviews, yielded linked word pairs for use in a semantic differential questionnaire, designed to elicit information about specific elements of institutional operation. The instrument was designed to provide supportive data for other available data used to make strategic decisions relevant to marketing/planning. Several multiple choice items were included in the instrument to obtain demographic characteristics of the

providers, such as age, sex, length of employment, and professional position within the clinic. Several open-ended questions were also included to provide information relevant to the provider's feelings about their workplace ("Image Study," 1982).

Questions from each of the subscales represented in Ware's Patient Satisfaction Questionnaire were restated as a question to providers relevant to their impressions of patient satisfaction within the clinic. This was felt to be necessary to aid in the comparison of patient and provider data.

This questionnaire was submitted to health care providers similar to those utilized in the study, to elicit their assessment of the questions, the readability of the questionnaire, and other perceived problems related to the administration of the questionnaire. A sample size of 16 was used for that purpose, including providers of care (both physician and nurses), and ancillary personnel (such as receptionists, laboratory personnel and X-ray personnel, and administrative personnel). The assessment results were obtained, examined, and incorporated into the final revision of the instrument prior to its pilot test.

A pilot test of the instrument was accomplished using ten providers/ancillary personnel representative of the population to be used for the study. The population

used for the pilot test were those providers and ancillary personnel who are the staff of a satellite clinic of the main clinic used for the study. A copy of both preliminary and final instruments can be found in Appendix D. Permission to revise/use the Schoefeldt et al. instrument appears in Appendix E.

C. Data Collection

Current patients and providers at the clinic chosen for the study were utilized to obtain the data needed.

As previously mentioned, the typical patient volume of the clinic was found to be approximately 2,500 patients per week. Monthly, the volume reached approximately 10,000. Utilizing a simple one-tenth formula for determining sample size, slightly more than one-tenth of the average weekly patient volume (300) was used for the sample size. A random sample, drawn over a period of one month was needed to represent the patient load for each of the five working days of the week, Monday through Friday. Since the patient scheduling varies according to time of the day, and day of the week, it was necessary to obtain representative samples at specified times and on each day of the week.

The executive administrator was consulted to obtain permission for the study, as well as to choose dates and

times for data collection that would best represent a usual work week. A schedule of administration dates was created, assuring that an equal number of patients were sampled on each day of the week, at specified times, and at each area of reception, to avoid bias. A copy of that schedule appears in Appendix F. The patients to be sampled came from that group of patients scheduled for a return visit on the designated sampling dates.

The provider sample consisted of care providers (physicians, nurses, and other health care technicians) and ancillary personnel (typists, receptionists, housekeepers, and maintenance workers) within the clinic. All clinic employees were used for the survey.

For the purposes of instrument pilot testing, a sample of both providers and patients was obtained from a satellite clinic, within ten miles of the main clinic.

To insure confidentiality, and facilitate response, the following steps were taken:

1. The respondents' names did not appear on any of the questionnaires that were used.
2. All demogrpahic data were categorized, thus assuring anonymity.
3. At no point in the study was an attempt made to identify participants of the study.
4. Privacy was insured at each of the reception areas to enhance compliance for administration

of the questionnaires. A box for the collection of completed questionnaires was present at each booth.

Each reception area of the clinic was designated as a distribution point for The Patient Satisfaction Questionnaire, since patient arrival/check-in and scheduling occur at the reception areas. Upon arrival for their appointments, patients were asked by the researcher or an agent of the researcher to complete the questionnnaire and deposit it in the box provided for that purpose. Appropriate writing instruments were provided for the participants. If the physical condition of the patient was a limitation for response, either the researcher, an agent of the researcher, or an agent of the patient (person accompanying patient) aided completion of the questionnaire. The Patient Demographic Questionnaire was attached to The Patient Satisfaction Questionnaire.

To obtain data from both the providers of care and the ancillary personnel of the clinic, administrative assistants were requested to carry out collection procedures for those clinic employees in their area of administrative duty. The administrative assistants hand delivered the questionnaires to providers with instructions, and provided a box in which to place the completed questionnaires. The administrative assistants

were given a deadline by the researcher by which the questionnaires were to be completed. This date was before the administration date for The Patient Satisfaction Questionnaire.

Boxes containing the completed questionnaires were collected by the researcher and prepared for analysis when instrument administration had been completed.

Adequate ease of administration within the clinic system was facilitated by the following steps:

1. The executive administrator issued a memo to care providers of the clinic to inform them of the researchers presence, the researchers task, and to request their cooperation with the process.
2. The process of questionnaire administration was explained to the administrative assistants and a typed outline of the process to be followed was given to them.
3. Providers of care and ancillary personnel of the clinic were promised a summary of the results of the research, to be made available through the administrative assistants in their area of work, upon completion of the study.
4. Pencils bearing the name of the clinic were given to the participants by the researcher as an incentive to complete the instrument.

Copies of all pertinent written correspondence used to facilitate questionnaire administration can be found in the appendix.

D. Tabulation of Data

One-way analysis of variance was used to assess significant differences between the independent variables of demographic characteristics and dependent variables of levels of patient satisfaction to determine whether levels of patient satisfaction differed significantly according to particular demographic characteristics.

Differences between the demographic characteristics and diagnostic classification were analyzed via Chi square to determine whether demographic characteristics differed significantly according to diagnostic classification.

The provider questionnaire was analyzed via sample enumeration and appropriate descriptive statistics. The items that were restated (using the Ware Questionnaire) were compared with those same items of the Ware Patient Satisfaction Questionnaire that was administered to patients to determine whether significant differences were present. Two-way analysis of variance was used for that comparison.

Demographic data for both the provider and patient were also described by appropriate descriptive statistics:

percentages, means, where applicable, and simple enumeration. Segmentation on the basis of demographic data was attempted also, by comprehensive review of the findings.

4. Identification of Market Opportunities

Significant findings from the analysis of the questionnaires were listed. Those findings were then compared to the factors that were found to affect care delivery (external environmental factors). The external factors, as detailed previously, were identified through the literature review and by collection of publically available secondary data and were then discussed, listed, and/or presented in tabular form.

The current literature is replete with examples of provider offerings that have been created at the recognition of specific opportunities (as determined by marketing research or expressed needs of consumers). The literature review provided examples of what other providers had recognized as market opportunities. This input was achieved by the researcher through the literature review in Chapter II, whereas, if the model were followed by a health care provider, the review of literature involving opportunities discovered by other health care providers would be done as a part of the application of the model in their particular setting.

The researcher was responsible for the expert opinion/value judgment portion of the model. Also included in this segment of the model is creative input, which was also provided by the researhcer for this study. This portion of the model requires a qualitative input that might be accomplished by a manager of a group practice, a group of employees, or other type of group. For this study, a comprehensive analysis of all of the significant data that resulted from data analysis was done by the researcher, and market opportunities that were apparent were listed. Based on the judgment of the researcher, the need for further research to identify market opportunities for the group practice was also assessed. At this point, the need or lack of need to revise the theoretical or methodological steps was evaluated on the basis of whether or not market opportunities were apparent as a result of the application of the model.

CHAPTER IV

ANALYSIS OF DATA

A. INTRODUCTION

Chapter IV is an analysis of the data obtained from application of the methodological model of Chapter III. Some of the methodological steps were accomplished by the extensive literature review in Chapter II, specifically, the literature review, selection of the study population, identification of needed information, and analysis of national trends.

Those steps of the model not addressed in Chapter II are included in Chapter IV as outlined below. Because of the extensive nature of the data, the final methodological step (identification of market opportunities) will be discussed in Chapter V.

1. External Secondary Data
    a. Macroenvironmental Trends (National)
    b. Microenvironmental Trends
        (1) State
        (2) District
        (3) Local
2. Internal Primary Data
    a. The Pilot Test

(1) The Health Care Provider Questionnaire

(2) The Patient Questionnaire

b. Provider Data

(1) Demographic Data

(2) Psychographic Data

c. Patient Data

(1) Demograhic

(2) Psychographic

d. Statistical Analysis of Data

1. External Secondary Data

The following information, originally obtained for purposes other than the study, was available through secondary sources. Macroenvironmental factors, involving broad trends affecting health care delivery, as well as microenvironmental factors, that are more localized to the study population, will be included in this section.

a. Macroenvironmental Factors (National)

A thorough discussion of national trends can be found in Chapter II.

b. Microenvironmental Factors (State, District, City)

Local data for the state, district, and city of the provider were available through secondary sources. It is

beyond the scope of this study to discuss every factor that might affect health care delivery by the provider sample, so the factors found to be most relevant to the study were reviewed. Those were determined by comprehensive assessment of all available secondary data.

(1) State Level Data

The provider sample is located in the southeastern portion of the United States, bordering on the Gulf of New Mexico.

Health data for the state were obtained from the state health department. The 10 leading causes of death for the state (in order of their significance) were found to be*:

1. Heart Disease
2. Malignant Neoplasms
3. Cerebrovascular Accidents
4. Accidents
5. Emphysema and Other Chronic Pulmonary Diseases
6. Pneumonia and Influenza
7. Diabetes Mellitis
8. Nephritis, Nephrotic Syndrome, and Nephrosis
9. Homocide and Legal Intervention
10. Certain Conditions Originating in the Perinatal Period

*To maintain confidentiality of the provider population,

some reference sources have been deleted, but those references can be obtained (at the provider's discretion) by contacting the researcher (see Bibliography: Unlisted References).

The incidence of reportable diseases for the health district of the provider were available and showed that the most common communicable (reportable) diseases are those that are transmitted sexually, specifically, syphilis and gonorrhea (Unlisted Reference). Morbidity rates for non-communicable illnesses were not available.

Statewide, infant mortality rates are higher than national averages. Fifty-five percent of all women who bear children in the state are considered mothers at risk (those who are thought to be too young, undereducated, or those who lack prenatal care). This factor contributes to the high infant mortality/birth defect rates for the state. The state also has one of the highest teenage pregnancy rates in the nation--21.2% of all births. Many of the mothers are under age 17 (Unlisted Reference).

Other acute problems related to the health status of state residents have been identified and include:

1. Extreme budget cutbacks/constraints of federal support for state-supported health services.
2. A large number of residents have incomes which are below the poverty level.

3. A trend toward overall diminishing federal aid to states.
4. Lack of adequate funding for statewide educational efforts relevant to health resources.
5. Fragmentation of health resources.
6. Lack of and fragmentation of services for the elderly.
7. Hospitals in the state are reportedly having financial difficulties due to fewer patients, unpaid bills, or facilities that are inappropriate for the current market (Unlisted Reference).

The 1986 State Health Care Plan recognized and reported the full scope of the state's health care needs, but emphasized priority needs in the implementation chapter:

1. The development of an integrated system to deal with the health needs of the elderly.
2. Development of an effective and coordinated system of care for mothers and babies before, during, and after pregnancy.
3. Provision of adequate support for prevention services.
4. The development of an integrated system for mental health care (includes care for the mentally ill, mentally retarded, developmentally disabled, and substance abusers).
5. Manpower--attention to the need for additional medical personnel, especially nurses and physicians in non-urban areas. (Unlisted Reference)

In addition to the identification of priorities, specific actions were suggested in the State Health Care Plan:

- Encourage Department of Health and Human Services approval of the Medicaid waiver to permit the funding of Home and Community Services Projects as an alternative to nursing home placement.
- During 1986, begin intensive efforts to promote the establishment of alternatives to nursing home care, i.e., supervised apartments, day care/treatment programs, personal care homes, respite care services, and residential retirement complexes.
- By 1989, study the results of the Home and Community Services Projects and produce a plan to implement the program statewide.
- By 1989, reduce the standard of need for nursing home beds from 49.37 beds per 1,000 persons 65 and over to 37 beds per 1,000 persons 65 and over.
- The established program should be continued and/or expanded to provide care for expectant mothers, mothers and children who would not otherwise be able to obtain pre-natal, neonatal, or post-partum care.
- State hospitals providing obstetrical services should be identified and licensed according to the levels of care provided.
- By June, 1988, the State Department of Mental Health would contract with appropriate community-based providers for the provision of residential services.
- Work with the University Medical Center, the State Legislature, and the National Service Corporation in developing and implementing a program to assist the underserved population with their physician needs, especially the black and rural population.
- Assist and advise the State Department of Health's Planning Division and the Special Study Committee on Indigent Care in developing recommendatinos to be presented to the State Legislature. (Unlisted Reference)

(2) District Level Data

The area's Planning and Development District compiles data for a 15-county area around the provider

site. Based on data collected by the national census and other sources, specific health-related goals/objectives for the district have been defined:

> Goal: The district's primary goal is to improve the quality of the region's care delivery system in such a manner that those most in need of services have their health care needs met while avoiding duplication of services.
> Objectives:
> - Increase the physician/patient population ratio in the rural areas of the region.
> - Increase the number of other health care providers (i.e., dentists, R.N.'s, E.M.T.'s, nurse practitioners) in those areas in need of increased primary health care services.
> - Avoid duplication and overlapping of services through a well-planned system of health care delivery.
> - Improve the quality of the region's health care facilities to meet the needs of our citizenry. (Unlisted Reference)

Goals were also listed relevant to the elderly population:

> Goal: The overall goal of the state Planning and Development District Area Agency on Aging is to coordinate and develop a comprehensive system of services necessary to allow the population sixty years of age or older to remain viable, active members of society, living in the environments of their choice.
> Objectives:
> - To obtain this goal, the Area Agency on Aging is focusing on several short and long term objectives, including:
> - To provide an adequate number of congregate and home-delivered meals that serve that portion of the over age 60 population having nutritional difficulties.
> - To develop "one stop" senior citizen centers throughout the district through which all available resources can be focused for the elderly.
> - To develop systems of in-home services to serve the home bound elderly.
> - To positively impact on the economic difficulties faced by most older people and the negative image of growing older held by society through an active advocacy effort. (Unlisted Reference)

Both the state's Health Systems Agency and the Department of Health and Human Services have targeted 5 rural counties surrounding the provider site for assistance in attracting health care personnel (Unlisted Reference). Selected characteristics of the district's population are as follows:

1. Unemployment rates of 12.2% are higher than the state average, but the county in which the provider is located had a rate lower than the state average of 8.7% (Unlisted Reference).
2. The major areas of employment include governmental (22.1%); trade (20.4%); and manufacturing (19.9%). Within the immediate area of the provider, the community has evolved into a major commuting stream--since it is one of the primary employment centers of the district. The town in which the provider is located is known as a medical and educational center (Unlisted Reference).
3. For the district, the ratio of white to non-white population is 78% to 22%. The male to female ratio is 49% to 51%; however, the county of the provider has the highest female population of the districts' counties at 53.1%. The population of persons over age 65 is 9.1%.

Also, the population within the county of the provider is expected to increase by 14% between 1980 and 1990. In contrast, many of the surrounding counties will incur a decrease in population.

4. The average per capita income for the district is $7,481, with a range of $4,815 to $7,566 within the 15 counties. A total of 15.1% of the families within the district fell below the poverty level; but in the county of the provider the income level is higher than the district mean (Unlisted Reference).
5. The city in which the provider is located is not a standard metropolitan statistical area, but according to 1982 census data, the county had a population of over 50,000, with over 50% of the residents residing in urban areas. Five of the district's counties, however, have 100% rural populations. Other counties in the district ranged from 61.7% to 82.4% rural (Unlisted Reference).
6. District data showed that 12.3% of the population had not completed high school and 4.9% of the population had completed less than 4 years of formal education. Educational

attainment trends in the district have shown significant increases over previous census figures, however (Unlisted Reference). The level of education in the city of the provider is higher than state averages. Also, the city of the provider is the site of two senior colleges, with several junior colleges within a hundred mile radius (Unlisted Reference).

(3) Local Data

Within the community of the provider, health care providers have only recently experienced heightened competition. Health care advertisements for local hospitals were non-existent 3 to 4 years ago, but are now commonplace. Local hospitals are involved in wellness promotion, increased ambulatory health care services, and educational/preventive services.

A formal market study was conducted to assess the feasibility of developing alternative forms of health care delivery systems such as preferred provider arrangements, independent physicians' associations, or health maintenance organizations. The study was accomplished by a private firm under contract by a group of local providers. Primary and secondary service areas were defined by the study. The primary service area was found to include the area within a

35-mile radius of the provider site. The secondary service area was primarily rural and included areas outside of the 35-mile radius. According to the study, 75% of the patients admitted to local hospitals originated from the primary service area. Hospital utilization data revealed that local utilization exceeds national averages (both in hospital admissions per 1,000 persons and average length of stay). Recommendations to local health care providers were generally:

1. To reduce hospital admissions and length of stay, because of current cost/reimbursement trends.
2. Continue development of an independent physicians association to facilitate possible affiliations with insurers, preferred provider organizations, or health maintenance organizations.
3. Explore opportunities to affiliate with larger health care networks.

In general, the study suggested that due to the area's population characteristics, provider characteristics, and the state's legal environment, alternative delivery systems were of questionable value. The study showed that there are 6 employers with 1,000 or more employees and 4 employers with 500 to 999 employees

in the primary service area. Insurance coverage for the employees of those employers is provided by an array of insurance companies. None of the employers were found to offer alternative forms of health insurance coverage, such as health maintenance organizations. Most of the decisions regarding health insurance coverage for employees of those companies was said to be made at a corporate/national level (outside of the state). The study revealed that among the surveyed companies, managers generally had a very low level of knowledge relevant to alternative forms of health care delivery or alternative forms of health insurance coverage for their employees (Unlisted Reference).

No prospective pay systems of health care delivery have previously existed in the state where the provider is located, since supportive legislation has not been in place. A bill to regulate health maintenance organizations within the state has been drafted and is expected to be introduced, passed, and put into effect early in 1987. Applications are on file for potential health maintenance organizations within the state and will be processed as soon as regulatory mechanisms are in place. Of the applications on file, none have applied to operate within the primary or immediate secondary service area of the provider.

The local Chamber of Commerce provided a summary of

general community data for the population and area industry. Population characteristics by zip code areas and by county/district were available through secondary sources and will be shown in the zip code analysis section of patient survey results.

2. Internal Primary Data

Internal demographic and psychograhic data were obtained from both patients and providers of care. Prior to actual collection of that data, a pilot test was completed.

a. Administration and Analysis of the Pilot Test

A pilot test of both the Patient Questionnaire and The Health Care Provider Questionnaire was accomplished at a satellite of the main clinic.

(1) The Health Care Provider Questionnaire: Pilot Test

The questionnaire was distributed to all providers of care at the satellite clinic by the receptionist. A box was provided as a receptacle for the completed questionnaires. Three nurses, 3 physicians, 1 X-ray technician, 1 laboratory technician, and 2 receptionists were included. Four questionnaires were returned after a 24-hour period of time. Because of the

poor response, a longer period of time between distribution and collection of the completed questionnaires was deemed necessary.

No problems of comprehensibility or readability of the questionnaire were noted. The health care providers responded to all items, with the exception of five open-ended questions.

(2) The Patient Questionnaire: Pilot Test

The questionnaire was distributed to return patients at the satellite clinic during both morning and afternoon hours of operaiton.

When the researcher handed the questionnaire to the patients, they tended to be wary of accepting the questionnaire--presumably due to lack of familiarity with the researcher. The patients responded more favorably when the receptionist (with whom the patients were familiar) requested completion of the questionnaire. This factor could significantly alter the quantity and/or quality of responses; therefore, the methodology for the study was altered to exclude the researcher from the actual distribution of the patient questionnaires.

Some patients were called into the patient examination room within 2 to 3 minutes after receiving the questionnaire, therefore, they did not have the time needed

to complete the questionnaire. This factor was not deemed likely to occur in the main clinic because waiting time is reputedly much longer there.

Of the 19 patient respondents who completed the questionnaire, 2 could not read. In both cases, they were accompanied by a family member who assisted them in the completion of the questionnaire.

No other problems of comprehensibility or readability were found during the pilot administration of the patient questionnaire.

The amount of time needed to complete the questionnaire was found to be between 8 and 25 minutes. The mean time was 12 minutes.

b. Provider Data

The study population included both providers of care and patients. The provider population included all physicians, nurses, and ancillary personnel of the main clinic. Of the 250 questionnaires distributed, 183 or 73% were completed and returned. Ancillary personnel represented 67% of those providers who responded to the questionnaire, nurses represented 22%, and physicians represented 10% of the provider sample.

Provider data were collected in the manner described in Chapter III. Relevant preparatory memoranda that were

distributed to the provider population prior to the distribution of questionnaires can be found in the appendix. Questionnaire collection boxes were left in place for a period of 7 days, to assure maximum return.

The Health Care Provider Questionnaire included 5 demographic items, 32 items relevant to provider's perceived clinic image, 3 multiple choice items relevant to the provider's opinion of the need for offering additional services/their perceived role in clinic decision-making processes, 17 items related to their perceptions of levels of patient satisfaction, and 5 open-ended questions. The following section describes the results by descriptive statistics/simple enumeration.

(1) Demographic Data

Demographic data were obtained by 5 multiple choice items requesting information relevant to the provider's position, department, length of affiliation with the clinic, age, and sex. Tables 2 through 6 present provider responses of those items.

Table 2 shows the number (and percentage) of providers by their position and department within the clinic.

Table 3 shows the number and percentage of provider responses to each category describing length of affiliation with the clinic.

TABLE 2

PROVIDER RESPONSES BY PRIMARY DEPARTMENT AND POSITION

Primary Department	Ancillary		Nurse		Physician	
	Responses	Percent	Responses	Percent	Responses	Percent
Orthopedics/Rheumatology/Neurology/ Family Practice	7	5.69	9	21.95	4	21.05
Obsterics/Gynecology	9	7.32	6	14.63	3	15.79
Surgery/Nephrology	5	4.07	6	14.63	3	15.79
Internal Medicine/Pulmonary/Cardiology	6	4.88	11	28.83	6	31.58
Administration/Business Office/Related Services	58	47.15	-	-	-	-
Housekeeping/Maintenance	5	4.07	-	-	-	-
Physical Therapy Laboratory/Audiology	15	12.20	-	-	-	-
Dialysis	12	9.76	6	14.63	-	-
Urology	4	3.25	3	7.32	2	10.53
Ear, Nose, Throat	1	.81	-	-	1	5.26
Missing	1	.81	-	-	-	-
Total	123	100.00	41	100.00	19	100.00

TABLE 3

PROVIDER RESPONSES BY LENGTH OF AFFILIATION AND POSITION

Length of Affiliation	Ancillary		Nurse		Physician	
	Responses	Percent	Responses	Percent	Responses	Percent
Less than 1 year	29	23.58	6	14.63	2	10.5
At least 1 year, but less than 5 years	54	43.90	15	36.59	7	36.8
Over 5 years, but less than 10 years	25	20.33	11	26.83	4	21.0
Over 10 years, but less than 15 years	7	5.69	4	9.76	3	15.7
15 years or more	8	6.50	5	12.20	3	15.7
Total	123	100.00	41	100.00	19	100.00

Table 4 presents the provider sample by age (age categories). The widest range of ages was within the sample of nurse providers. The group with the lowest mean age category was ancillary providers. The group with the highest mean age category was physicians.

TABLE 4

PROVIDER RESPONSES BY AGE AND POSITION

	Ancillary		Nurse		Physician	
Age	Responses	Percent	Responses	Percent	Responses	Percent
Under 25 years	46	37.40	5	12.20	-	-
25 to 35 years	38	30.89	22	53.66	5	26.32
36 to 45 years	21	17.07	4	9.76	8	42.11
46 to 64 years	18	14.63	8	19.51	5	26.32
65 years or older	-	-	1	2.44	1	5.26
Missing	-	-	1	2.44	-	-
Total	123	100.00	41	100.00	19	100.00

Table 5 presents the distribution of the provider sample by sex. Males represented 9.76% of the ancillary provider sample compared to 100% of the physician provider sample. There were no male nurses. Females represented 86.99% of the ancillary provider sample and 97.56% of the nurse provider sample. There were no female physicians.

TABLE 5

PROVIDER RESPONSES BY SEX AND POSITION

	Ancillary		Nurse		Physician	
Sex	Responses	Percent	Responses	Percent	Resposnes	Percent
Male	12	9.76	-	-	19	100.00
Female	107	86.99	40	97.56	-	-
Missing	4	3.25	1	2.44	-	-
Total	123	100.00	41	100.00	19	100.00

Table 6 presents the provider sample by race. The white racial category included 91.87% of the ancillary provider sample. Only 7.32% of ancillary providers were black. Of the nurse sample, 97.56% were white and 2.44% were black. The physician sample was 100% white.

TABLE 6

PROVIDER RESPONSES BY RACE AND POSITION

	Ancillary		Nurse		Physician	
Race	Responses	Percent	Responses	Percent	Responses	Percent
White	113	91.87	40	97.56	19	100.00
Black	9	7.32	1	2.44	-	-
Hispanic	-	-	-	-	-	-
Oriental/ Asian	-	-	-	-	-	-
Other	-	-	-	-	-	-
Missing	1	.81	-	-	-	-
Total	123	100.00	41	100.00	19	100.00

(2) Psychographic Data

The following section summarizes provider responses to psychographic items of the Health Care Provider Questionnaire.

Health Care Provider's Perceived Clinic Image. Tables 7 through 12 present provider responses to items related to their impression of clinic image. A Likert rating scale was used to obtain data relevant to particular areas/services of the clinic. Those items are presented in Tables 7 through 9. A semantic differential scale was used to obtain provider ratings of particular clinic characteristics. Those responses are presented in Tables 10 through 12.

Table 7 presents the ancillary provider sample ratings of particular areas/services of the clinic. The sample ratings by the nurse provider of clinic areas/services are presented in Table 8. Physician sample ratings of clinic areas/services are shown in Table 9.

Tables 10, 11, and 12 present the provider sample ratings of selected clinic characteristics (that are related to providers perceived organization image). Providers were asked to rate the clinic on each set of descriptors on a scale of 1 to 6. The lower number represented a very poor rating and the higher number an excellent rating.

TABLE 7

ANCILLARY PROVIDER RATINGS OF CLINIC AREAS/SERVICES

Area/Service of Clinic	Categories of Ancillary Provider Responses											
	Category of Response											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Business Office	11	8.94	36	29.29	69	56.10	2	1.63	-	-	9	4.07
Administration	15	12.20	49	39.84	46	37.40	2	1.63	6	4.88	5	4.07
Parking	4	3.25	16	13.01	46	37.40	24	19.51	31	25.20	2	1.62
Building Maintenance	8	6.50	26	21.14	70	56.91	16	13.01	2	1.63	1	.81
Housekeeping	15	12.20	35	28.46	56	45.53	13	10.57	3	2.44	1	.81
Availability of Equipment and Supplies	18	14.63	38	30.89	51	41.46	10	8.13	2	1.63	4	3.25
Laboratory Services	15	12.20	35	28.46	62	50.41	6	4.88	2	1.63	3	2.44
X-Ray Services	16	13.01	35	28.46	60	48.78	4	3.25	1	.81	7	5.69
Medical Records Service	14	11.38	42	34.15	53	43.09	6	4.88	3	2.44	5	4.07
Physical Therapy Service	23	18.70	50	40.65	42	34.15	1	.81	-	-	9	5.69
Patient Information/Patient Education	17	13.81	30	24.39	65	52.85	10	8.13	-	-	1	.81
Health/Wellness Promotion	10	8.13	27	21.95	58	47.15	16	13.01	4	3.25	8	6.50
Promotion of the Clinic to the Public	10	8.13	27	21.95	56	45.53	19	15.45	6	4.88	5	4.07
Community Services	15	12.20	25	20.33	60	48.78	13	10.57	2	1.63	8	6.50
Nursing Competence	17	13.82	35	28.46	61	49.59	3	2.44	-	-	7	5.69

TABLE 7 (Continued)

Area/Service of Clinic	Categories of Ancillary Provider Responses											
	Category of Responses											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Nursing Attitude Toward Patients	15	12.20	39	31.71	59	47.97	5	4.07	1	.81	4	3.25
Nursing Attitude Toward Clinic Personnel	9	7.32	22	17.89	66	53.66	20	16.26	3	2.44	3	2.44
Doctor's Competence	31	25.20	43	34.96	43	34.96	2	1.63	-	-	4	3.25
Doctor's Attitude Toward Clinic Personnel	10	8.13	21	17.07	61	49.59	23	18.70	7	5.69	1	.81
Doctor's Attitude Toward Patients	14	11.38	34	27.64	68	55.29	1	.81	1	.81	5	4.07
Telephone Communication/Etiquette	12	9.76	33	26.83	64	52.03	11	8.94	2	1.63	1	.81
Interpersonal Communication Between Personnel	12	9.76	29	23.58	57	46.34	18	14.63	6	4.88	1	.81
Interpersonal Communication Between Personnel and Patients	10	8.13	32	16.02	72	58.54	6	4.88	1	.81	2	1.63
Financial Compensation	7	5.69	7	5.69	43	34.96	34	27.64	34	27.64	5	4.07
Fringe Benefits (Vacation, Retirement Benefits, Time Off, Group Insurance, or Others)	39	31.71	43	34.96	32	26.02	6	4.88	2	1.63	1	.81
Overall	7	5.69	36	29.27	66	53.66	1	.81	1	.81	12	9.76

TABLE 8

NURSE PROVIDER RATINGS OF CLINIC AREAS/SERVICES

Area/Service of Clinic	Categories of Nurse Provider Responses											
	Category of Response											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Business Office	2	4.88	7	17.07	26	63.42	3	7.32	1	2.44	2	4.88
Administration	4	9.76	12	29.27	22	53.66	1	2.44	-	-	2	4.88
Parking	4	9.76	4	9.76	12	29.27	11	26.83	8	19.51	2	4.88
Building Maintenance	4	9.76	5	12.20	20	48.78	9	21.95	3	7.32	-	-
Housekeeping	1	2.44	9	21.95	17	41.46	7	17.07	5	12.20	2	4.88
Availability of Equipment and Supplies	5	12.20	18	43.99	12	29.27	6	14.63	-	-	-	-
Laboratory Services	4	9.76	12	29.27	19	46.34	2	4.88	-	-	-	-
X-Ray Services	7	17.07	13	31.71	21	51.22	-	-	-	-	-	-
Medical Records Service	3	7.32	12	29.27	21	51.22	3	7.32	1	2.44	1	2.44
Physical Therapy Service	7	17.07	16	39.02	17	41.46	-	-	-	-	1	2.44
Patient Information/Patient Education	3	7.32	12	29.27	21	51.22	3	7.32	1	2.44	1	2.44
Health/Wellness Promotion	13	31.71	16	39.02	7	17.07	3	7.32	2	4.88	-	-
Promotion of the Clinic to the Public	5	12.20	14	34.15	14	34.15	7	17.07	1	2.44	-	-
Community Services	5	12.20	9	21.95	20	48.78	4	9.76	2	4.88	1	2.44
Nursing Competence	1	2.44	22	53.66	17	41.46	-	-	-	-	1	2.44

TABLE 8 (Continued)

Area/Service of Clinic	Categories of Nurse Provider Responses											
	Category of Responses											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Nursing Attitude Toward Patients	4	9.76	17	41.46	17	41.46	3	7.32	-	-	-	-
Nursing Attitude Toward Clinic Personnel	3	7.32	13	31.71	23	56.20	2	4.88	-	-	-	-
Doctor's Competence	11	26.83	14	34.15	15	36.59	-	-	-	-	1	2.44
Doctor's Attitude Toward Clinic Personnel	2	4.88	11	26.83	22	53.66	4	9.76	1	2.44	1	2.44
Doctor's Attitude Toward Patients	9	21.95	12	31.71	17	41.46	1	2.44	-	-	1	2.44
Telephone Communication/Etiquette	3	7.32	14	34.15	20	48.78	4	9.76	-	-	-	-
Interpersonal Communication Between Personnel	2	4.88	12	29.27	21	51.22	5	12.20	1	2.44	-	-
Interpersonal Communication Between Personnel and Patients	1	2.44	18	43.90	19	46.34	2	4.88	-	-	1	2.44
Financial Compensation	1	2.44	1	2.44	20	48.78	13	31.71	5	12.20	1	2.44
Fringe Benefits (Vacation, Retirement Benefits, Time Off, Group Insurance, or Others)	6	14.63	13	31.71	18	43.90	4	9.76	-	-	-	-
Overall	-	-	13	31.71	24	58.54	2	4.88	-	-	2	4.88

TABLE 9

PHYSICIAN PROVIDER RATINGS OF CLINIC AREAS/SERVICES

Area/Service of Clinic	Categories of Physician Provider Responses											
	Category of Response											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Business Office	2	10.53	7	36.84	7	36.84	1	5.26	-	-	2	10.53
Administration	10	52.63	8	42.11	-	-	-	-	-	-	1	5.26
Parking	2	10.53	4	21.03	7	36.84	4	21.05	-	-	1	5.26
Building Maintenance	1	5.26	6	31.58	8	42.11	3	15.79	-	-	1	5.26
Housekeeping	1	5.26	8	42.11	9	47.37	-	-	-	-	1	5.26
Availability of Equipment and Supplies	1	5.26	10	52.63	5	26.32	1	5.26	-	-	2	10.53
Laboratory Services	3	15.79	8	42.11	5	26.32	1	5.26	-	-	2	10.53
X-Ray Services	2	10.52	4	21.05	5	26.32	5	26.32	1	5.26	2	10.53
Medical Records Service	-	-	4	21.05	8	42.11	5	26.32	-	-	2	10.53
Physical Therapy Service	3	15.79	9	47.37	3	15.79	1	5.26	-	-	3	15.79
Patient Information/Patient Education	-	-	5	26.32	9	47.37	1	5.26	2	10.53	2	10.53
Health/Wellness Promotion	-	-	1	5.26	5	26.32	5	26.32	5	26.32	3	15.79
Promotion of the Clinic to the Public	-	-	2	10.53	8	42.11	3	15.79	5	26.32	1	5.26
Community Services	-	-	2	31.58	7	36.84	-	-	4	21.05	2	10.53
Nursing Competence	1	5.26	10	52.63	6	31.58	-	-	-	-	2	10.53

TABLE 9 (Continued)

Area/Service of Clinic	Categories of Physician Provider Responses											
	Category of Responses											
	Excellent		Above Average		Average		Below Average		Poor		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Nursing Attitude Toward Patients	1	5.26	9	47.37	6	31.58	2	10.53	-	-	1	5.26
Nursing Attitude Toward Clinic Personnel	-	-	9	47.37	7	36.84	1	5.26	-	-	2	10.53
Doctor's Competence	5	26.32	12	63.16	-	-	1	5.26	-	-	1	5.26
Doctor's Attitude Toward Clinic Personnel	2	10.53	4	21.05	10	52.63	1	5.26	-	-	2	10.53
Doctor's Attitude Toward Patients	-	-	5	26.32	11	57.90	1	5.26	-	-	2	10.53
Telephone Communication/Etiquette	-	-	2	10.53	9	47.37	6	31.58	-	-	2	10.53
Interpersonal Communication Between Personnel	-	-	4	21.05	10	52.63	2	10.53	1	5.26	2	10.53
Interpersonal Communication Between Personnel and Patients	-	-	3	15.79	11	57.90	1	5.26	2	10.53	2	10.53
Financial Compensation	1	5.26	7	36.84	7	36.84	1	5.26	1	5.26	2	10.53
Fringe Benefits (Vacation, Retirement Benefits, Time Off, Group Insurance, or Others)	1	5.26	11	57.90	5	26.60	-	-	-	-	-	10.53
Overall	1	5.26	12	63.16	3	15.79	-	-	-	-	3	15.79

TABLE 10

ANCILLARY PROVIDER RATINGS OF SELECTED CLINIC CHARACTERISTICS

Clinic Characteristics (Positive vs Negative)	Numbers and Percentages of Responses in Each Category													
	Categories of Response													
	1		2		3		4		5		6		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Friendly vs Unfriendly	22	17.89	42	34.15	37	30.08	17	30.08	17	13.82	3	2.44	1	.81
Attractive vs Unattractive	20	16.26	34	27.64	41	33.33	21	17.07	4	3.25	1	.81	2	1.63
Professional vs Unprofessional	27	21.95	47	38.21	30	24.39	18	14.63	1	.81	-	-	-	-
Quiet vs Noisy	14	11.38	20	16.26	42	34.15	27	21.95	16	13.01	4	3.25	-	-
Clean vs Dirty	26	21.14	45	36.59	32	26.02	15	12.20	4	3.25	-	-	-	-
Caring vs Indifferent	15	12.20	42	34.15	33	36.83	19	15.45	10	8.13	4	3.25	-	-
Comfortable vs Uncomfortable	16	13.01	33	26.83	46	37.40	22	17.89	6	4.88	-	-	-	-
Organized vs Unorganized	12	19.76	18	14.63	40	32.52	32	26.02	15	12.20	5	4.07	1	.81
Charitable vs Uncharitable	15	12.20	37	30.08	41	33.33	17	13.82	9	7.32	3	2.44	1	.81
Democratic vs Authoritarian	8	6.50	22	17.89	35	28.46	26	21.14	17	13.82	8	6.50	7	5.69
Efficient vs Inefficient	14	31.38	30	24.39	39	31.71	26	21.14	13	10.51	-	-	1	.81
Ethical vs Unethical	28	22.76	43	34.96	30	34.39	14	11.38	4	3.25	2	1.63	2	1.63
Biased vs Unbiased	10	8.13	16	13.01	24	19.51	30	24.39	18	14.63	14	11.38	11	8.94
Flexible vs Inflexible	14	11.38	24	19.51	46	37.40	22	17.89	9	7.32	4	3.25	4	3.25
Disciplined vs Undisciplined	17	13.82	32	26.02	41	33.33	20	16.26	10	8.13	-	-	3	2.44
Structured vs Unstructured	17	13.82	34	27.64	41	33.33	18	14.63	9	7.32	2	1.63	2	1.63

TABLE 11

NURSE PROVIDER RATINGS OF SELECTED CLINIC CHARACTERISTICS

Clinic Characteristics (Positive vs Negative)	Numbers and Percentages of Responses in Each Category													
	Categories of Response													
	1		2		3		4		5		6		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Friendly vs Unfriendly	8	19.51	8	19.51	17	41.46	6	14.63	2	4.88	-	-	-	-
Attractive vs Unattractive	9	21.95	11	26.83	12	29.27	5	12.20	4	9.76	-	-	-	-
Professional vs Unprofessional	8	19.51	19	46.34	8	19.51	2	4.88	3	7.32	-	-	1	2.44
Quiet vs Noisy	9	21.95	7	17.07	7	17.07	8	19.51	5	12.20	5	12.20	-	-
Clean vs Dirty	10	24.39	9	21.95	8	19.51	6	14.63	6	14.63	2	4.88	-	-
Caring vs Indifferent	10	24.39	11	26.83	12	29.27	3	7.31	2	4.88	1	2.44	2	4.88
Comfortable vs Uncomfortable	7	17.07	14	34.15	8	19.51	8	19.51	1	2.44	2	4.88	1	2.44
Organized vs Unorganized	7	17.07	7	17.07	9	21.95	12	29.27	4	9.76	2	4.88	-	-
Charitable vs Uncharitable	4	9.76	8	19.51	18	43.90	4	9.76	5	12.20	1	2.44	1	2.44
Democratic vs Authoritarian	7	17.07	5	12.20	8	19.51	12	29.27	6	14.63	1	2.44	2	4.88
Efficient vs Inefficient	8	19.51	13	31.71	7	17.07	8	19.51	3	7.32	-	-	2	4.88
Ethical vs Unethical	13	31.71	12	29.27	6	14.63	7	17.07	2	4.88	-	-	1	2.44
Biased vs Unbiased	3	7.32	5	12.20	10	24.39	12	29.27	3	7.32	7	17.07	2	4.88
Flexible vs Inflexible	7	17.07	5	12.20	13	31.71	8	19.51	3	7.32	3	7.32	2	4.88
Disciplined vs Undisciplined	4	9.76	13	31.71	13	31.71	7	17.07	-	-	4	9.76	-	-
Structured vs Unstructured	9	21.95	12	29.27	8	19.51	11	26.83	-	-	-	-	1	2.44

TABLE 12

PHYSICIAN PROVIDER RATINGS OF SELECTED CLINIC CHARACTERISTICS

Clinic Characteristics (Positive vs Negative)	Numbers and Percentages of Responses in Each Category													
	Categories of Response													
	1		2		3		4		5		6		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Friendly vs Unfriendly	1	5.26	6	31.58	8	42.11	15	15.79	-	-	-	-	1	5.26
Attractive vs Unattractive	1	5.26	3	15.79	8	42.11	4	21.05	2	10.53	-	-	1	5.26
Professional vs Unprofessional	3	15.79	9	47.37	5	26.32	1	5.26	-	-	-	-	1	5.26
Quiet vs Noisy	1	5.26	2	10.53	4	21.05	8	42.11	1	5.26	2	10.53	1	5.26
Clean vs Dirty	1	5.26	5	26.32	7	36.84	3	15.79	1	5.26	-	-	2	10.53
Caring vs Indifferent	2	10.53	4	21.05	6	31.58	4	21.05	2	10.53	-	-	1	5.26
Comfortable vs Uncomfortable	-	-	3	15.79	7	36.84	4	21.05	4	21.05	-	-	1	5.26
Organized vs Unorganized	1	5.26	4	21.05	8	42.11	4	21.05	1	5.26	-	-	1	5.26
Charitable vs Uncharitable	2	10.53	5	26.32	5	26.32	2	10.53	3	15.79	-	-	2	10.53
Democratic vs Authoritarian	-	-	2	10.53	6	31.58	3	15.79	1	5.26	-	-	4	21.05
Efficient vs Inefficient	-	-	3	15.79	9	47.37	3	15.79	1	5.26	1	5.26	2	10.53
Ethical vs Unethical	7	36.84	7	36.84	3	15.79	-	-	-	-	-	-	2	10.53
Biased vs Unbiased	-	-	2	10.53	2	10.53	3	15.79	6	31.58	3	15.78	3	15.79
Flexible vs Inflexible	2	10.53	6	31.58	3	15.79	2	10.53	4	21.05	-	-	2	10.53
Disciplined vs Undisciplined	1	5.26	3	15.79	8	42.11	3	15.79	2	10.53	-	-	2	10.53
Structured vs Unstructured	1	5.26	6	31.58	5	26.32	5	26.32	-	-	-	-	2	10.53

Health Care Provider Perceptions of Patient Satisfaction. Provider's perceptions of the level of patient satisfaction with care were assessed via 17 items that represented particular aspects of patient satisfaction. Tables 13 through 15 summarize those item responses.

Items of the Ware Patient Satisfaction Questionnaire representative of subscales measuring various aspects of patient satisfaction were chosen and revised to elicit provider perceptions of levels of patient satisfaction within the clinic.

Table 13 presents ancillary provider responses to items relevant to patient satisfaction. Table 14 reflects the responses by nurses to items relevant to patient satisfaction, while Table 15 presents the responses from physicians concerning patient satisfaction.

Provider Responses to Multiple Choice Items. Three multiple choice items provided data relevant to provider opinions about needed services/perceived roles in clinic decision-making. Further explanation was requested of respondents who replied "yes" to the question that asked whether additional services are needed at the clinic. Their written explanations were categorized and will be included in this section.

TABLE 13

ANCILLARY PROVIDER RESPONSES TO ITEMS RELEVANT TO PATIENT SATISFACTION

Aspects of Patient Satisfaction	Numbers and Percentages of Ancillary Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
If our patients have a medical question, someone can be reached without any problem.	16	13.03	67	54.57	23	18.70	15	12.20	2	1.63	-	-
There are enough family physicians in this clinic.	18	14.63	62	50.41	18	14.63	21	17.07	3	2.44	1	.81
Patients in this clinic hardly ever see the same physician when they come for medical care.	3	2.44	7	5.69	30	24.39	60	48.78	21	17.07	2	1.63
The fees that our physicians charge are too high.	7	5.69	36	29.27	40	32.52	31	25.20	6	4.88	3	2.44
Our physicians always do their best to keep the patients from worrying.	9	7.32	51	41.46	45	36.59	13	10.57	2	1.63	3	2.44
Our physicians always to their best to avoid unnecessary expenses.	2	1.63	31	25.20	54	43.90	28	22.76	5	4.07	3	2.44
Physicians hardly ever explain medical problems to the patient.	1	.81	17	13.82	36	29.27	54	43.90	10	8.13	5	4.07
Our physicians don't advise patients about ways to avoid illness and injury.	1	.81	17	13.82	38	30.89	57	46.34	8	6.50	2	1.63
Patients can get medical care easily even if they don't have money with them.	8	6.50	49	39.84	33	26.83	25	20.33	6	4.88	2	1.63
Our patients are very satisfied with the medical care they receive.	2	1.63	58	47.15	44	35.77	16	13.01	-	-	3	2.44

TABLE 13 (Continued)

Aspects of Patient Satisfaction	Numbers and Percentages of Ancillary Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
There are things about the medical care our patients receive that could be better.	12	9.76	72	58.54	31	25.20	5	4.07	-	-	3	2.44
There are enough specialists in this clinic.	14	11.38	42	34.15	29	23.58	31	25.20	5	4.07	2	1.63
It is hard for our patients to get an appointment for medical care right away.	12	9.76	41	33.33	25	20.33	38	30.89	4	3.25	3	2.44
The location of the clinic is convenient to the patients.	32	26.02	74	60.16	7	5.69	7	5.69	-	-	3	2.44
The office hours of the clinic are good for most patients.	31	25.20	85	69.11	2	1.63	2	1.63	-	-	3	2.44
It takes a long time for most of our patients to get to the clinic.	2	1.63	22	17.89	59	47.97	35	28.46	1	.81	4	3.25
Patients are usually kept waiting a long time at this clinic.	44	35.77	54	43.90	15	12.20	7	5.69	-	-	3	2.44

TABLE 14

NURSE PROVIDER RESPONSES TO ITEMS RELEVANT TO PATIENT SATISFACTION

Aspects of Patient Satisfaction	Numbers and Percentages of Nurse Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
If our patients have a medical question, someone can be reached without any problem.	9	21.95	22	53.66	3	7.32	7	17.07	-	-	-	-
There are enough family physicians in this clinic.	7	17.07	19	46.34	8	19.51	7	17.07	-	-	-	-
Patients in this clinic hardly ever see the same physician when they come for medical care.	-	-	4	9.76	8	19.51	15	36.59	13	31.71	1	2.44
The fees that our physicians charge are too high.	3	7.32	7	17.07	15	36.59	12	29.27	4	9.76	-	-
Our physicians always do their best to keep the patients from worrying.	6	14.63	14	34.15	12	29.27	7	17.07	-	-	2	4.88
Our physicians always do their best to avoid unnecessary expenses.	4	9.76	13	31.71	11	26.83	12	29.27	1	2.44	-	-
Physicians hardly ever explain medical problems to the patient.	1	2.44	9	21.95	4	9.76	20	48.78	7	17.07	-	-
Our physicians don't advise patients about ways to avoid illness and injury.	1	2.44	6	14.63	8	19.51	19	46.34	7	17.07	-	-
Patients can get medical care easily even if they don't have money with them.	1	2.44	21	51.22	14	34.15	4	9.76	1	2.44	-	-
Our patients are very satisfied with the medical care they receive.	1	2.44	22	53.66	14	34.15	4	9.76	-	-	-	-

TABLE 14 (Continued)

Aspects of Patient Satisfaction	Numbers and Percentages of Nurse Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
There are things about the medical care our patients receive that could be better.	2	4.88	27	65.85	6	14.63	4	9.76	2	4.88	-	-
There are enough specialists in this clinic.	4	9.76	18	43.90	6	14.63	11	26.83	2	4.88	-	-
It is hard for our patients to get an appointment for medical care right away.	4	9.76	15	36.59	8	19.51	12	29.27	2	4.88	-	-
The location of the clinic is convenient to the patients.	9	21.95	29	70.73	3	7.32	-	-	-	-	-	-
The office hours of the clinic are good for most patients.	10	24.39	30	73.17	1	2.44	-	-	-	-	-	-
It takes a long time for most of our patients to get to the clinic.	1	2.44	14	34.15	18	43.90	7	17.07	1	2.44	-	-
Patients are usually kept waiting a long time at this clinic.	8	19.51	21	51.22	6	14.63	6	14.63	-	-	-	-

TABLE 15

PHYSICIAN PROVIDER RESPONSES TO ITEMS RELEVANT TO PATIENT SATISFACTION

Aspects of Patient Satisfaction	Numbers and Percentages of Physician Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
If our patients have a medical question, someone can be reached without any problem.	5	26.32	11	57.90	1	5.26	1	5.26	-	-	1	5.26
There are enough family physicians in this clinic.	4	21.05	6	31.58	6	31.58	2	10.53	-	-	1	5.26
Patients in this clinic hardly ever see the same physician when they come for medical care.	1	5.26	-	-	-	-	8	42.11	9	47.37	1	5.26
The fees that our physicians charge are too high.	1	5.26	-	-	2	10.53	10	52.63	5	26.32	1	5.26
Our physicians always do their best to keep the patients from worrying.	1	5.26	5	26.32	6	31.58	4	21.05	2	10.53	1	5.26
Our physicians always do their best to avoid unnecessary expenses.	1	5.26	-	-	1	5.26	15	78.95	1	5.26	1	5.26
Physicians hardly ever explain medical problems to the patient.	1	5.26	-	-	1	5.26	15	78.95	1	5.26	1	5.26
Our physicians don't advise patients about ways to avoid illness and injury.	1	5.26	2	10.53	5	26.32	10	52.63	-	-	1	5.26
Patients can get medical care easily even if they don't have money with them.	2	10.53	9	47.37	2	10.53	5	26.32	-	-	1	5.26
Our patients are very satisfied with the medical care they receive.	2	10.53	12	63.16	4	21.05	-	-	-	-	1	5.26

TABLE 15 (Continued)

Aspects of Patient Satisfaction	Numbers and Percentages of Physician Provider Responses in Each Category											
	Categories of Response											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
There are things about the medical care our patients receive that could be better.	7	36.84	10	52.63	1	5.26	-	-	-	-	1	5.26
There are enough specialists in this clinic.	1	5.26	8	42.11	2	10.53	4	21.05	5	15.79	9	5.26
It is hard for our patients to get an appointment for medical care right away.	1	5.26	10	52.63	4	21.05	3	15.79	-	-	1	5.26
The location of the clinic is convenient to the patients.	5	26.32	10	52.63	1	5.26	1	5.26	1	5.26	1	5.26
The office hours of the clinic are good for most patients.	4	21.05	12	63.16	1	5.26	1	5.26	-	-	1	5.26
It takes a long time for most of our patients to get to the clinic.	1	5.26	2	10.53	10	52.63	5	26.32	-	-	1	5.26
Patients are usually kept waiting a long time at this clinic.	1	10.53	2	42.11	3	36.84	-	-	-	-	9	10.53

Table 16 presents provider responses concerning the need for additional clinic services.

TABLE 16

PROVIDER RESPONSES: BASED ON YOUR EXPERIENCE HERE WITH PATIENTS AND EMPLOYEES, ARE THERE ANY ADDITIONAL SERVICES/PROCEDURES THAT ARE NOT OFFERED NOW, BUT SHOULD BE CONSIDERED? IF YES, PLEASE EXPLAIN

	Responses							
	Yes		No		Missing		Total	
Responses	No.	%	No.	%	No.	%	No.	%
Ancillary	46	37.40	51	41.45	26	21.24	123	100.00
Nurse	16	39.02	16	39.02	9	21.96	41	100.00
Physician	13	68.42	2	10.53	4	21.05	19	100.00

Description of Written Resonses to Question 8. Of the 70 health care providers who responded "yes" to question 8, 70 wrote their ideas of additional services/procedures that should be offered by the clinic. A total of 102 specific comments were written. Comments varied greatly, but were categorized for ease of interpretation. The following list represents the categories of response and the number of comments written by each type of provider (ancillary, nurse, or physician).

1. Additional services are needed, including wellness/preventive medicine programs (3, ancillary; 10, nurse; and 19, physician).
2. Additional medical specialists are needed (7, ancillary; 10, nurse; and 5, physician).
3. Communication neeeds improvement (6, ancillary; and 2, nurse).
4. Specific improvements are needed relevant to patient comfort or the physical plant relative to patient comfort (10, ancillary; and 2, nurse).
5. Employee education or inservice is inadequate (5, ancillary; and 4, nurse).
6. Specific improvements are needed relative to employee benefits or the physical plant relative to employee comfort (4, ancillary; and 4, nurse).
7. Personnel policies, staffing, administrative procedures need improvement (3, ancillary; 3, nurse; and 1, physician).
8. Promotional efforts need to be increased/improved (4, ancillary).
9. Additional equipment is needed (1, ancillary; and 2, physician).

Table 17 presents provider repsonses relevant to their perceived level of input in clinic decisions. Only .81% of ancillary personnel and 10.53% of physicians felt

that they have a very great extent of input. In comparison. 38.21% of ancillary providers and 36.59% of nurses felt that they have no input in clinic decisions.

TABLE 17

PROVIDER RESPONSES: TO WHAT EXTENT DO YOU HAVE INPUT IN CLINIC DECISIONS?

	Providers					
	Ancillary		Nurse		Physician	
Responses	No.	%	No.	%	No.	%
To a very great extent	1	.81	-	-	2	10.53
To a great extent	3	2.44	1	2.44	3	15.79
To some extent	22	17.89	10	24.39	9	47.36
To a little extent	50	40.65	14	34.15	3	15.79
To no extent	47	38.21	15	36.59	-	-
Missing	-	-	1	2.43	2	10.53
Total	123	100.00	41	100.00	19	100.00

Table 18 presents provider responses relevant to whether or not they desire additional input into clinic decisions.

TABLE 18

PROVIDER RESPONSES: DO YOU FEEL YOU SHOULD HAVE MORE INPUT INTO CLINIC DECISIONS?

	Providers					
	Ancillary		Nurse		Physician	
Responses	No.	%	No.	%	No.	%
Yes	69	56.10	24	58.54	9	47.37
No	13	10.57	7	17.07	7	36.84
Undecided	35	28.45	9	21.95	2	10.53
Missing	6	4.88	1	2.44	1	5.26
Total	123	100.00	41	100.00	19	100.00

Provider Responses to Open-ended Questions. In addition to the open-ended portion of Question 8, four additional open-ended questions were included in the Health Care Provider Questionnaire to elicit providers' ideas about the clinic. A summary of those responses follows. To facilitate summary, the question will be stated, then categories of provider responses to that question will be

listed. Categories will be followed by information in parentheses that represents the number of responses falling in that category, and the type of provider who gave the response(s) (ancillary, nurse, or physician).

Responses to Question 11 (The greatest strengths of the clinic are-). Eighty-four providers responded to this question. A total of 192 specific "strengths" were mentioned in the following categories:

1. The doctors, specifically, the number of specialists available in the facility (19, ancillary; 12, nurse; and 5, physician).
2. The quality/competence of the physicians or quality of care (9, ancillary; 15, nurse; and 9, physician).
3. The staff--other than physicians (14, ancillary; 10, nurse; and 6, physician).
4. Attitudinal factors (6, ancillary; 16, nurse; and 6, physician).
5. Employee benefits (5, ancillary; 11, nurse; and 2, physician).
6. The clinic offers many services. The number of ancillary services available in the facility (8, ancillary; and 5, nurse).

7. The physicians--miscellaneous factors related to the physicians (4, ancillary; 6, nurse; and 2, physician).
8. Miscellaneous (4, ancillary; 4, nurse; and 3, physician).
9. The clinic's large size (5, ancillary; and 1, physician).
10. The clinic's location (3, ancillary; and 1, physician).

Responses to Question 12 (The greatest weaknesses of the clinic are-). A total of 120 providers responded to this question by written comments. One hundred fifty-four specific "weaknesses" were stated in the following categories:

1. Specific personnel policies, including inadequate inservice and inadequate salary (24, ancillary; and 10, nurse).
2. Attitudinal (9, ancillary; 11, nurse; and 8, physician).
3. Physical plant/equipment (11, ancillary; 6, nurse; and 8, physician).
4. Lack of communication (9, ancillary; 10, nurse; and 3, physician).
5. Specific administrative problems (5, ancillary; 4, nurse; and 8, physician).

6. Patient waiting time is too lengthy (10, ancillary; 5, nuse; and 1, physician).
7. The scheduling system is poor (5, ancillary).
8. Size (too big) is a weakness (3, nurse; and 2, physician).
9. Miscellaneous weaknesses (2, ancillary).

Responses to Question 13 (What do you feel should be done differently at this clinic?).

Seventy providers wrote responses to this question. One hundred twenty specific suggestions were written, in the following categories:

1. Specific personnel policies, administrative policies, or general services should be different (30, ancillary; 21, nurse; and 14, physician).
2. Communication needs improvement (12, ancillary; 6, nurse; and 1, physician).
3. Specific improvements in the physical or equipment are needed (8, ancillary; 4, nurse; and 3, physician).
4. Attitudinal changes are needed (4, ancillary; 2, nurse; and 3, physician).
5. Patient waiting time needs improvement (3, ancillary; 3, nurse; and 1, physician).
6. Patient scheduling should be improved (5, ancillary).

Responses to Question 16 (What do you think might increase the level of patient satisfaction at this clinic?). Eighty-seven providers responded to this question with 159 specific suggestions in the following categories:

1. Patient waiting time should be decreased (16, ancillary; 17, nurse, and 6, physician).
2. Attitudinal changes need to be made within the clinic (10, ancillary; 8, nurse; and 9, physician).
3. Changes in the physical plant/equipment would improve patient satisfaction (10, ancillary; 8, nurse; and 7, physician).
4. Additional services or changes in existing services are needed (12, ancillary; 7, nurse; and 4, physician).
5. Scheduling improvements are needed (10, ancillary; and 6, nurse).
6. Improved patient education or patient information are needed (3, ancillary; 4, nurse; and 4, physician).
7. Personnel policy changes are needed (7, ancillary; and 1, nurse).
8. Administrative/managerial changes are needed (2, ancillary; and 4, nurse).

9. Improved communication is needed (3, nurse; and 1, physician).

c. Patient Data

Patient data were collected in the manner described in Chapter III. Relevant memoranda that were used to train staff prior to administration of the survey may be found in Appendix H.

The patient questionnaire consisted of a 43-item patient satisfaction survey, and a 16-item demograhpic profile.

The following section will review the results of the patient survey by descriptive statistics and simple enumeration.

(1) Demographic Data

Thirteen multiple choice items were used to obtain demographic data. Some of the items requested that the patient write in an explanation, if they chose particular responses. In addition to the multiple choice items, three open-ended questions were included to obtain additional patient data.

Patient Responses to Multiple Choice Items. Tables 19 through 31 represent patient responses to questions 1 through 13 of the patient demographic profile.

Table 19 presents the patient sample distribution by age category.

TABLE 19

PATIENT POPULATION BY AGE

Age	Responses	
	No.	%
Under 25 years	36	11.43
25 to 35 years	61	19.37
36 to 45 years	55	17.46
46 to 64 years	80	25.40
65 years or over	74	23.49
Missing	9	2.88
Total	315	100.00

Table 20 presents the patient sample distribution by sex.

TABLE 20

PATIENT POPULATION BY SEX

Sex	Responses	
	No.	%
Male	93	29.53
Female	214	67.94
Missing	8	2.54
Total	315	100.00

Table 21 presents the patient sample distribution by racial category.

TABLE 21

PATIENT POPULATION BY RACE

Race	Responses	
	No.	%
White	263	83.49
Black	43	13.65
Hispanic	1	.32
Oriental	1	.32
Other	7	2.22
Total	315	100.00

Table 22 presents the patient sample distribution by employment status.

TABLE 22

PATIENT POPULATION BY EMPLOYMENT STATUS

Employment Status	Responses	
	No.	%
Employed	124	39.37
Unemployed	175	55.56
Missing	16	5.07
Total	315	100.00

Description of Written Responses to Question 4 (employment status). Even though Question 4 had no open-ended portion, many patients who responded "unemployed" further clarified by writing either "housewife" or "retired" in the margin of the questionnaire.

Table 23 presents the patient sample distribution by annual income amount.

TABLE 23

PATIENT POPULATION BY ANNUAL HOUSEHOLD INCOME

Annual Household Income	Responses	
	No.	%
Below $10,000 a year	102	32.38
$10,000 to $20,000 a year	79	25.08
$21,000 to $35,000 a year	63	20.00
$36,000 to $50,000 a year	25	7.93
Over $50,000 a year	10	3.18
Missing	36	11.43
Total	315	100.00

Table 24 presents the patient sample distribution by marital status.

TABLE 24

PATIENT POPULATION BY MARITAL STATUS

Marital Status	Responses	
	No.	%
Single (never married)	34	10.79
Married	207	65.71
Divorced	22	6.99
Widowed	44	13.97
Other	1	.32
Missing	7	2.22
Total	315	100.00

Table 25 presents the patient sample distribution by number of people presently living in home.

TABLE 25

PATIENT POPULATION BY NUMBER OF PEOPLE PRESENTLY LIVING IN HOME

Number of Peole Presently Living in Home	Responses	
	No.	%
1	32	10.16
2	115	36.51
3	64	20.32
4	51	16.19
5 or more	42	13.33
Missing	11	3.49
Total	315	100.00

Table 26 presents the patient sample distribution by number of persons in home over the age of 18 years.

TABLE 26

PATIENT POPULATION BY NUMBER OF PERSONS IN HOME OVER THE AGE OF 18 YEARS

Number of Persons in Home Over Age of 18 years	Responses	
	No.	%
0	15	4.76
1	40	12.70
2	174	55.24
3	60	19.05
4 or more	12	3.81
Missing	14	4.44
Total	315	100.00

Table 27 presents the patient sample distribution by number of persons in home under the age of 18 years.

TABLE 27

PATIENT POPULATION BY NUMBER OF PERSONS IN HOME UNDER AGE 18 YEARS

Number of Persons in Home Under Age 18 Years	Responses	
	No.	%
0	156	49.32
1	54	17.14
2	44	13.97
3	16	5.08
4 or more	13	4.13
Missing	32	10.16
Total	315	100.00

Table 28 presents the patient sample distribution by number of persons in home over the age of 65 years.

TABLE 28

PATIENT POPULATION BY NUMBER OF PERSONS IN HOME OVER AGE 65 YEARS

Number of Persons in Home Over Age 65 Years	Responses	
	No.	%
0	201	63.81
1	46	14.60
2	42	13.33
3	1	.32
4 or more	1	.32
Missing	24	7.62
Total	315	100.00

Table 29 presents the patient sample distribution by duration of clinic utilization.

TABLE 29

PATIENT POPULATION BY DURATION OF CLINIC UTILIZATION

Length of Utilization	Responses	
	No.	%
Less than 1 year	66	20.95
1 to 5 years	88	27.94
6 to 10 years	55	17.46
Over 10 years	92	29.21
Missing	14	4.44
Total	315	100.00

Descripton of Written Responses to Question 12.

Thirty-eight written responses were given by patients. Comments were diverse, so categorization was difficult. Categories of response, with the number of responses in that category (in parentheses) were: location of the clinic

(12); through treatment of an emergency nature (5); the clinic has the only physician of that specialty in this area--no other choice available (4); coutesy and/or quality of care (2); dissatisfaction with another provider (2); and miscellaneous factors (9).

TABLE 30

PATIENT RESPONSES: WHAT HELPED YOU FIRST DECIDE TO USE THE SERVICES OF THE CLINIC? IF OTHER, PLEASE EXPLAIN

Reason for Use	Responses	
	No.	%
My doctor's referral	122	38.73
Advice of a family member	64	20.32
Advice of a friend	66	20.95
Printed information about clinic	4	1.27
Other	22	6.98
Missing	37	11.75
Total	315	100.00

Description of Written Responses to Question 13.

Twelve patients named particular insurance carriers: John Hancock (1 response); Blue Cross (3 responses); CHAMPUS (4 responses); Bankers Life and Casualty (1 response); Bankers-Delta Kappa Gamma (1 response); Student Insurance (1 repsonse); and TROA Supplement (1 response).

TABLE 31

PATIENT RESPONSE: WHAT TYPE OF MEDICAL INSURANCE DO YOU HAVE? IF OTHER, PLEASE EXPLAIN

	Responses	
Type of Insurance Coverage	No.	%
None	16	5.08
Group Insurance Through Employer	143	45.40
Medicaid	14	4.44
Medicare	19	6.03
Private Policy	9	2.86
Other	6	1.90
Missing	108	34.29
Total	315	100.00

Patient Responses to Open-ended Questions. In addition to the open-ended portions of questions 12 and 13, three additional open-ended questions were included in the

Patient Demographic Profile to elicit information from the patient population. Table 32 represents responses to question 14, then a summary of resonses to questions number 15 and 16 follows.

TABLE 32

PATIENT RESPONSES: WHAT TYPE OF ILLNESS/HEALTH PROBLEM ARE YOU HAVING THAT MADE THIS TRIP TO THE CLINIC NECESSARY?

	Responses	
Diagnostic Category	No.	%
Check-up	33	10.57
Obstetric/Gynecology	41	13.02
Internal Medicine	54	17.86
Diabetes	10	3.18
Ears, Nose, and Throat	13	4.76
Oncology	26	8.25
Gastroenterology	9	2.86
Orthopedics	43	13.65
Surgery	9	2.86
Accident	7	2.22
Dialysis	24	7.62
Urology	6	1.91
Neurology	9	2.86
Missing	30	9.52
Total	315	100.00

Description of Patient Responses. Patient responses to the question were written on the survey instrument. Their perceived illness/health problems were categorized for the purpose of summary. Twenty-seven categories of response were collapsed to 13 categories to facilitate analysis.

Patient Responses to Open-ended Question Number 15 (What services/procedures do you feel the clinic needs to offer that are not now offered?) Fifty-two patients responded to this question by written responses in the following categories. The number in parentheses represents the number of patient responses in that category.

1. Time factors: Better appointment scheduling/less patient waiting time is needed. (16)
2. Attitudinal and/or Behavioral Factors: Improvements in the courtesy of staff or quality of patient-staff interactions are needed. (8)
3. Patient Education: More and/or improved patient education needed. (6)
4. Services: Additional specific general services are needed. (6)
5. Additional Specialties: Additional medical specialists are needed. (4)
6. Financial: Financial arranagements and/or financial policies within the clinic need amending. (4)

7. Patient Comfort: Specific changes that would improve patient comfort are needed. (3)
8. Parking: Parking problems need correction. (3)
9. Equipment: Additional specific equipment is needed. (2)
10. Miscellaneous Comments: Patients wrote numerous comments in the margins of the questionnaire. Comments were both negative and positive, often mentioning specific health care providers by name.

Patient Responses to Open-ended Question 16 (Please list the zip code of your home. If you can not remember the zip code, please list the town nearest you. Of the 315 patient respondents, 298 answered Question 16 of the Patient Questionnaire by listing the zip code of their residence. An analysis of the resulting data, by simple listing, yielded the geographic distribution of the patient sample. To facilitate coordination of that data with existing information relevant to specific population characteristics, the geogrpahic distribution of the patient population was analyzed first by zip code areas (National Postal Service Areas), then by county within the provider's planning and development district.

The Patient Sample by Zip Code Area. The geographic distribution of patients' homes was found to be within 5

major zip code areas surrounding the site of the health care provider. Of the 315 patient respondents, only 2 respondents were outside of these zip code areas and those patients were outside of the state of the health care provider. Patients residing in Zip Code Area One represented 1.68% of the patient sample. Zip Code Area Two had 1.34% of the patient sample residing within that area. Zip Code Area Three had the largest portion of the patient sample, 88.92%. Zip Code Area Four had 4.70% of the patient sample and Zip Code Area Five had 2.68% of the patient sample residing within that area.

Characteristics of the Patient Sample by Zip Code Areas. Population characteristics, based on census data, were found for the area of the health care provider through an existing secondary source (Claritas, 1985). The following table describes selected population characteristics of the patient sample, based on secondary data obtained through Claritas.

The Patient Sample by County. The geogrpahic distribution of patients' residences was found to be primarily within the 15 counties of the health care provider's planning and development district. Of the 298 patients who responded to the question, 16 (5.37%) had residences outside the planning and development district, 2 of which were outside the state. Forty-six and three tenths

TABLE 33

SELECTED POPULATION CHARACTERISTICS BY ZIP CODE AREAS

Selected Characteristics	Zip Code Areas				
	Area 1	Area 2	Area 3*	Area 4	Area 5
Number of patients residing in area	5	4	256	14	8
% of patient sample residing in area	1.68	1.34	88.56	4.70	2.68
Total number of people in area (1985)	249,580	200,863	302,657	343,554	124,695
Projected % of annual population growth (1985-1990)	.70	-.05	1.14	1.17	.27
Median household income	$15,088	$14,440	$15,833	$19,788	$13,924
Income distribution (by % of total population):					
Over $75,000	1.5	1.2	1.2	1.4	.9
$50,000-$74,999	4.3	3.1	3.7	5.2	2.9
$30,000-$49,999	16.3	12.9	15.9	21.1	13.8
$20,000-$29,999	17.5	18.7	19.5	21.8	17.8
$15,000-$19,999	10.6	12.3	12.0	13.0	11.5
$10,000-$14,999	14.0	14.8	14.8	13.2	14.5
Under $10,000	35.8	37.0	32.9	24.3	38.6

TABLE 33 (Continued)

Selected Characteristics	Zip Code Areas				
	Area 1	Area 2	Area 3*	Area 4	Area 5
Household size (by % of total population):					
1 person	20.2	19.9	20.0	18.8	21.3
2 persons	28.5	28.9	29.8	28.4	29.0
3 to 4 persons	33.6	36.2	34.6	36.5	32.5
Over 5 persons	17.7	15.0	15.6	16.3	17.2
Marital status (age 16 and over):					
Never married	25.6	23.3	23.2	23.4	23.0
Married	57.2	60.0	61.1	63.3	59.2
Widowed	9.6	10.4	9.0	6.4	10.7
Divorced	5.1	5.0	4.9	6.8	4.5
Separated	2.5	2.3	1.8	2.1	2.6
Age distribution (% of total population):					
Under 18 years	32.6	30.0	31.0	32.3	32.4
18-24 years	12.2	11.3	13.7	14.0	11.3
24-34 years	14.5	18.5	14.9	16.6	13.4
35-44 years	10.1	9.4	10.5	11.5	9.6
45-54 years	9.2	9.1	9.5	9.6	9.3
55-64 years	9.1	8.8	9.0	8.0	9.5
65 and over	12.3	12.9	11.4	8.0	14.5

TABLE 33 (Continued)

Selected Characteristics	Zip Code Areas				
	Area 1	Area 2	Area 3*	Area 4	Area 5
Ratio of males per 100 females	91	92	94	100	92
Educational status:					
Less than high school	47.7	57.1	43.5	33.1	49.2
Completed high school	27.4	30.8	31.9	37.3	29.2
College 1-3 years	12.8	13.0	13.3	17.0	12.1
College 4+ years	12.1	9.1	11.3	12.6	9.5
Race:					
% Black	42.9	32.0	23.0	17.5	40.5
% White	56.0	65.7	75.9	79.7	58.6
Labor force (age 16 and up):					
% Armed Forces	0	1.9	0	5.8	0
% Unemployed	6.7	7.5	6.3	8.2	7.2
% Female	46.2	43.2	40.7	41.5	42.3
% Families with 2+ workers	50.2	47.4	48.2	51.4	45.7
% Households without vehicles	14.8	13.9	11.0	8.2	12.8
% Households without telephones	16.5	22.1	16.1	14.0	18.2

*Area 3 represents the area in which the health care provider is located.

TABLE 34

UNEMPLOYMENT TRENDS BY COUNTY, PLANNING DISTRICT, STATE, AND UNITED STATES RELEVANT TO THE PATIENT SAMPLE*

Area	Percent Patient Sample	Percent of Unemployment by Year			
		Dec. 1982	Dec. 1983	Dec. 1984	Sept. 1985
County 1	4.70	16.3	14.9	14.1	12.2
County 2	4.70	12.7	13.5	12.6	10.6
County 3	6.38	8.7	10.4	9.2	8.9
County 4	.03	15.1	14.1	11.7	9.9
County 5	7.71	12.6	15.7	17.5	12.9
County 6	5.70	8.5	9.3	8.3	7.7
County 7**	46.30	8.5	9.8	8.4	8.1
County 8	5.37	16.4	11.8	12.5	12.8
County 9	1.60	17.5	18.4	18.4	21.7
County 10	5.70	12.8	14.4	11.4	12.2
County 11	4.70	16.0	20.9	12.6	13.4
County 12	1.34	13.7	22.2	21.5	19.2
Total SMPDD		12.5	14.6	12.1	10.2
State		11.2	11.9	10.6	10.4
United States		9.7	9.6	7.5	7.3

**County 7 is the county in which the provider is located.

*Source of Data: Unlisted Reference.

TABLE 35

POPULATION PROJECTIONS FOR COUNTIES WITHIN THE PROVIDER/PATIENT SAMPLE'S PLANNING AND DEVELOPMENT DISTRICT*

County	% Patient Sample	1985	1990	1995	2000
1	4.70	14,137	14,504	14,871	15,238
2	4.70	16,099	16,654	17,208	17,763
3	6.38	64,565	67,343	70,120	72,898
4	.03	19,424	20,141	20,858	21,575
5	7.71	27,080	28,499	29,917	31,336
6	5.70	24,314	26,725	29,136	31,547
**7	46.30	68,001	71,178	74,356	77,533
8	5.37	10,231	10,547	10,863	11,180
9	1.60	10.011	10.384	10,757	11,130
10	5.70	36,370	39,186	42,002	44,818
11	4.70	10,076	10,709	11,343	11,976
12	1.34	16,041	17,089	18,137	19,184
SMPDD		644,626	690,193	736,003	782,180

**County 7 is the county in which the provider is located.

*Source of Data: Unlisted Reference.

TABLE 36

POPULATION AGE 65 AND ABOVE (1980), AND PERCENTAGE OF CHANGE (1970 TO 1980) FOR THE COUNTIES IN THE PLANNING AND DEVELOPMENT DISTRICT OF THE PROVIDER/PATIENT SAMPLE*

County	% of Patient Sample	Population Aged 65 and Above (1980)	Percentage Change (1970-1980)
1	4.70	1,791	32.0
2	4.70	2,118	36.3
3	6.38	7,977	32.4
4	.03	2,086	22.2
5	7.71	3,324	34.2
6	5.70	2,050	36.5
**7	46.34	7,273	34.5
8	5.37	1,071	16.2
9	1.60	1,157	23.3
10	5.70	3,375	42.8
11	4.70	1,053	30.6
12	1.34	1,598	50.2
Entire State	-	289,357	30.2

**County 7 is the county in which the provider is located.

*Source of Data: Unlisted Reference.

percent of the patient sample was found to reside within the county of the health care provider, with 160 (54%) residing outside of that county.

Patient Population Characteristics by County. Population characteristics, based on national census data, were found for the counties within the provider's planning and development district. The following tables describe that data found through secondary sources, which was found to be relevant to this study.

(2) Psychographic Data

The following section summarizes patient responses to psychograhic items of the Patient Questionnaire. Psychographic data were obtained by means of a 43-item patient satisfaction questionnaire. Item responses are summarized in Table 37.

Patient satisfaction was measured by 6 separate indexes: Access, Availability, Continuity of Care, Finance, Doctor Conduct, and Overall Satisfaction. A score was calculated for each index according to the method suggested by Ware et al. (1976).

Patients, as a group, were found to be most satisified with continuity of care and least satisfied with doctor conduct. Scores for the indexes measuring patient

TABLE 37

PATIENT RESPONSES TO ITEMS ON THE WARE PATIENT SATISFACTION QUESTIONNAIRE

Item	Patient Responses											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. I'm very satisfied with the medical care I receive.	106	33.65	170	53.97	22	6.98	6	1.91	-	-	11	3.49
2. Parking is a problem when you have to get medical care.	28	8.89	58	18.41	24	7.62	134	42.54	56	17.78	15	4.76
3. Doctors aren't as thorough as they should be.	23	7.30	54	17.14	38	12.06	123	39.05	62	19.68	15	4.76
4. If I have a medical question, I can reach someone for help without any problem.	72	22.86	153	48.57	46	14.60	32	10.16	3	.95	9	2.89
5. The fees doctors charge are too high.	75	23.81	97	30.79	69	21.91	48	15.24	14	4.44	12	3.81
6. Without proof that you can pay, it's almost impossible to get admitted to the hospital.	72	22.86	74	23.49	100	31.75	29	9.21	23	7.30	17	5.40
7. Doctors always do their best to keep patients from worrying.	55	17.46	182	57.78	32	10.16	29	9.21	4	1.27	13	4.13
8. In an emergency, it's very hard to get medical care quickly.	25	7.94	54	17.14	57	18.09	117	37.14	49	15.56	13	4.13
9. Most people are encouraged to get a yearly exam when they go for medical care.	45	14.29	157	49.84	57	18.10	41	13.02	5	1.59	10	3.18
10. More hospitals are needed in this area.	19	6.03	35	11.11	96	30.48	119	37.78	36	11.43	10	3.18
11. The care I have received from doctors in the last few years is just about perfect.	47	14.92	152	48.25	43	13.65	53	16.83	10	3.18	10	3.18

TABLE 37 (Continued)

Item	Patient Responses											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
12. Sometimes doctors take unnecessary risks in treating their patients.	8	2.54	55	17.46	100	31.75	113	35.87	28	8.89	11	3.49
13. The amount charged for medical care services is reasonable.	14	4.44	85	26.98	63	20.00	107	33.97	35	11.11	11	3.49
14. Doctors are very careful to check everything when examining their patients.	31	9.84	143	45.40	48	15.24	73	23.18	9	2.86	11	3.49
15. Doctors always treat their patients with respect.	63	20.00	199	63.18	11	3.49	30	9.52	4	1.27	8	2.54
16. There are enough family doctors around here.	29	9.21	103	32.70	120	38.10	40	12.70	16	5.08	7	2.22
17. I think my doctor's office has everything needed to provide complete medical care.	57	18.10	199	63.18	36	11.43	16	5.08	-	-	7	2.22
18. It's hard to get an appointment for medical care right away.	28	8.89	81	25.71	27	8.57	132	41.91	36	11.43	11	3.49
19. Medical insurance coverage should pay for more expenses than it does.	107	33.97	137	43.49	31	9.84	25	7.94	8	2.54	7	2.22
20. It takes me a long time to get to the place where I receive medical care.	26	8.25	80	25.40	16	5.08	151	47.94	28	8.89	14	4.44
21. I hardly ever see the same doctor when I go for medical care.	9	2.86	20	6.35	11	3.49	189	60.00	76	24.13	10	3.18
22. Sometimes doctors make the patient feel foolish.	14	4.44	61	19.37	27	8.57	148	46.98	57	18.10	8	2.54

TABLE 37 (Continued)

Item	Patient Responses											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
23. Doctors always avoid unnecessary patient expenses.	15	4.76	71	22.54	98	31.11	95	30.16	23	7.30	13	4.13
24. Places where you can get medical care are conveniently located.	30	9.52	205	65.08	22	6.98	38	12.06	5	1.59	15	4.76
25. Doctors casue peole to worry a lot because they don't explain medical problems to patients.	24	7.62	87	27.62	37	11.75	125	39.68	27	8.57	15	4.76
26. Most people receive medical care that could be better.	15	4.76	84	26.67	98	31.11	86	27.30	14	4.44	18	5.71
27. Doctors ask what foods patients eat and explain why certain foods are best.	19	6.03	120	38.10	61	19.37	84	26.67	14	4.44	17	5.40
28. My doctor's office lacks some things needed to provide complete medical care.	5	1.59	28	8.89	73	23.18	158	50.16	34	11.11	16	5.08
29. The medical problems I've had in the past are ignored when I seek care for new medical problems.	9	2.86	35	11.11	31	9.84	183	58.10	43	13.65	14	4.44
30. Doctors respect their patients feelings.	59	18.73	205	65.08	21	6.67	16	5.08	4	1.27	10	3.18
31. If more than one family member needs medical care, we have to go to different doctors.	22	6.98	128	40.64	44	13.97	86	27.30	18	5.71	17	5.40
32. Office hours when you can get medical care are good for most people.	33	10.48	215	68.25	23	7.30	27	8.57	5	1.59	12	3.81
33. There are enough doctors in the area who specialize.	35	11.11	164	52.06	73	23.18	25	7.94	8	2.54	10	3.18

TABLE 37 (Continued)

Item	Patient Responses											
	Strongly Agree		Agree		Not Sure		Disagree		Strongly Disagree		Missing	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
34. I think you can get medical care easily even if you8 don't have money with you.	21	6.67	87	27.62	98	31.11	68	21.59	31	9.84	10	3.18
35. Doctors never recommend surgery (an operation) unless there is no other way to solve the problem.	35	11.11	128	40.64	88	27.94	46	14.60	4	1.27	14	4.44
36. Doctors don't advise patients about ways to avoid illness or injury.	14	4.44	74	23.49	59	18.73	132	41.91	21	6.67	15	4.76
37. There are things about the medical care I receive that could be better.	18	5.71	95	30.16	72	22.86	92	29.26	18	5.71	20	6.35
38. There are enough hospitals in the area.	28	8.89	173	54.92	70	22.22	24	7.62	7	2.22	13	4.13
39. Doctors hardly ever explain the patient's medical problems to him.	12	3.81	47	14.92	21	6.67	190	60.32	30	9.52	15	4.76
40. I am happy with the coverage provided by medical insurance plans.	19	6.03	100	31.75	34	10.79	101	32.06	43	13.65	18	5.71
41. People are usually kept waiting a long time when they are at the doctor's office.	67	21.27	122	38.73	31	9.84	66	20.95	13	4.13	16	5.08
42. There is a big shortage of family doctors around here.	13	4.13	56	17.78	114	36.19	93	29.53	21	6.67	18	5.17
43. I see the same doctor just about every time I go for medical care.	54	17.14	200	63.49	8	2.54	35	11.11	2	.64	16	5.08

satisfaction, ordered from highest degree of satisfaction to lowest degree of satisfaction were as follows:

Continuity of Care

Overall Satisfaction

Availability

Finance

Access

Doctor Conduct

d. Statistical Analysis of Data

Several statistical procedures were used to further analyze the data resulting from the administration of the provider and patient questionnaires. This section will discuss those findings.

(1) Assessment for Significant Differences Between Demographic Characteristics and the Levels of Patient Satisfaction

One-way analysis of variance was used to determine whether patient satisfaction indexes differed significantly according to demographic classifications. Table 38 presents those findings.

Comparisons that did reveal a significant difference at the .05 level of confidence were further assessed to determine where the differences were. Duncan's multiple range test and Scheffe's test were used to further assess the variables. Findings were as follows:

TABLE 38

ASSESSMENT FOR SIGNIFICANT DIFFERENCES IN THE LEVEL OF PATIENT SATISFACTION ACCORDING TO DEMOGRAPHIC CATEGORIES**

Demographic Variables	Patient Satisfaction Indexes					
	Access	Availability	Continuity of Care	Finance	Doctor	Over-all Satisfaction
	F Value	F Value	F Value	F Value	F Value	F Value
Age	1.23	2.10	.18	.74	1.77	1.87
Sex	.08	2.63	1.11	4.15*	.04	.27
Race	1.27	3.76*	.43	2.86*	.57	1.72
Employment	.26	.26	5.65*	1.26	1.35	2.85
Income Levels	2.24	1.61	1.61	2.38	.39	.14
Marital Status	2.11	1.13	.77	.57	1.11	1.00
Number of Persons in Home	3.02*	2.73*	.44	1.57	1.64	2.24
Number of Persons in Home Over 18	5.96*	1.24	1.43	1.61	2.62*	1.35
Number of Persons in Home Under 18	.69	.13	.50	1.35	1.80	1.33

TABLE 38 (Continued)

Demographic Variables	Patient Satisfaction Indexes					
	Access	Availability	Continuity of Care	Finance	Doctor	Over-all Satisfaction
	F Value	F Value	F Value	F Value	F Value	F Value
Number of Persons in Home Over 65	.98	2.44	.72	.81	.25	1.05
Years of Clinic Utilization	.95	1.34	.08	2.23	.01	.56
Decision to Use Clinic	1.63	2.94*	1.25	.46	1.02	1.03
Insurance Coverage	1.11	.63	.75	.83	.13	.55

Note: Correlations are expressed in F values. The F values were compared with critical F values, according to standard F tables found in Champion (1981).

**One-way analysis of variance was used to determine whether patient satisfaction indexes differed significantly according to demographic classifications.

*Significant differences at the .05 level of probability.

Finance: The level of patient satisfaction relevant to financial aspects of care was found to differ significantly according to racial classification and sex.

- Satisfaction relevant to index of finance was found to differ according to the patient's racial classification. Ordered from the most satisfied to the least satisfied were those patients in the following categories: "other", "black", "white", and "hispanic".
- Satisfaction relevant to the index of finance was found to differ according to sex of the patients. Females were found to be less satisfied with financial aspects of care than were males.

Availability: There were significant differences in the levels of patient satisfaction for the index of provider availability according to demographic classifications of race, number of persons currently living in the patient's home, and reason for first using the clinic:

- There was a significant difference in the level of patient satisfaction for the index of provider availability according to

racial classification. The most satisfied were those patients who were classified as "hispanic", followed by "white" and "black". The least satisfied patients were those classified as "other".

- Patient satisfaction for the index of provider availability was found to differ significantly according to the number of persons currently living in the patient's home. Ordered from those with the highest degree of satisfaction to those with the lowest degree of satisfaction were those patients with: 2 persons currently living in the home, 4 persons in the home, 1 person in the home, 5 persons in the home, and 3 persons in the home.
- Level of patient satisfaction for the index of provider availability was found to differ significantly according to the patients' reasons for first utilizing clinic services. The most highly satisfied patients were those whose reason for first using clinic services was based on printed information about the clinic, followed by: advice of a family member, advice of a

friend, and other. Those who were least satisfied were those whose first clinic use was because of physician referral.

Access to Care: Level of patient satisfaction for the index of access to care was found to differ significantly according to the number of persons living in the patient's home over the age of 18 years. Ordered from those patients with the highest level of satisfaction to those with the lowest level of satisfaction were those patients with: 3 persons in the home over age 18, 1 person in the home over age 18, 2 persons in the home over age 18, 4 persons in the home over age 18, and 5 persons in the home over age 18.

Continuity of Care: Levels of patient satisfaction for the index relevant to continuity of care were found to differ significantly according to both employment status and number of persons living in the home.

- Employed patients were found to have a higher level of satisfaction than unemployed patients for the index of continuity of care.
- Levels of patient satisfaction for the index of continuity of care differed

according to the number of persons living in the patient's home. Ordered from those patients having the highest level of satisfaction to those with the least level of satisfaction were those patients with: 2 persons in the home, 4 persons in the home, 1 person in the home, 5 persons in the home, and 3 persons in the home.

(2) Assessment for Differences Between Diagnostic Classification and Levels of Patient Satisfaction

Diagnostic categories were derived from the patient's responses to Item 14 of the Patient Demographic Profile (What type of illness/health problem are you having that made this trip to the clinic necessary?). Twenty-seven distinct categories of patients' perceived illnesses were recognized. To facilitate statistical analysis, the categories were reduced to produce a total of 13 categories. One-way analysis of variance was used to determine whether levels of patient satisfaction differed significantly according to diagnostic classification. The findings were as follows:

Continuity of Care: The level of patient satisfaction relevant to continuity of care was found to differ significantly according to diagnostic category. Ordered from those patients with the

highest level of satisfaction to those with the least level of satisfaction were those patients with the following diagnostic classifications: neurology; diabetes; ears, nose, and throat; check-up; surgery; orthopedics; oncology; internal medicine; accident; obstetric/gynecology; gastroenterology; urology; and dialysis.

Finance: The level of patient satisfaction with care related to financial factors was found to differ significantly according to diagnostic category. Ordered from those patients with the highest level of satisfaction to those with the lowest level were those patients in the following categories: diabetes; ears, nose, and throat; neurology; orthopedics; surgery; check-up; oncology; dialysis; obstetric/gynecology; accident; gastroenterology; and urology.

Doctor Conduct: The level of patient satisfaction relevant to doctor conduct was found to vary significantly according to the patient's perceived diagnostic classification. Ordered from those patients with the highest level of satisfaction to those with the lowest level of satisfaction were those patients with the following diagnostic classifications: diabetes; ears, nose, and throat;

neurology; orthopedics; oncology; check-up; obstetric/gynecology; internal medicine; accident; dialysis; urology; and gastroenterology.

(3) Assessment for Significant Differences Between Demograhpic Characteristics and Diagnostic Classification

As mentioned previously, diagnostic categories were derived from the patients' perceived illnesses. Thirteen categories of diagnoses were produced by collapsing 27 categories of patient responses.

To specify whether there were significant differences between diagnostic categories according to demographic classifications, Chi square was used. The .05 level of confidence was chosen for statistical significance.

Over 20% of the cells in the Chi square tables had counts less than 5, rendering Chi square invalid. The data are presented in Tables 39 through 51.

Table 39 presents the patient sample diagnostic category distribution by age. Visual inspection of the table revealed that the distribution was diffuse, with no cell having over 6.42% of the sample.

Table 40 presents the patient sample sex distribution by diagnostic category. The female segment of the sample represented the highest percentage of patients in all diagnostic categories except accident.

TABLE 39

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY AGE

Diagnostic Category	Patient Age											
	Under 25 Years		25 to 35 Years		36 to 45 Years		46 to 64 Years		65 years or Over		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	4	1.35	6	2.03	7	2.36	10	3.38	9	3.04	36	12.16
OB/GYN	12	4.05	19	6.42	4	1.35	4	1.35	1	.34	40	13.51
Internal Medicine	2	.68	10	3.38	6	2.03	12	5.74	19	6.42	54	18.24
Diabetes	-	-	2	.68	1	.34	6	2.03	1	.34	10	3.38
Ears/Nose/Throat	1	.34	3	1.01	5	1.69	2	.68	4	1.35	15	5.07
Oncology	3	1.01	3	1.01	5	1.69	7	2.36	8	2.70	26	8.78
Gastroenterology	-	-	4	1.35	2	.68	1	.34	2	.68	9	3.04
Orthopedics	5	1.69	6	2.03	6	2.03	13	4.39	13	4.39	43	14.53
Surgery	1	.34	1	.34	3	1.01	2	.68	2	.68	9	3.04
Neurology	1	.34	1	.34	2	.68	2	.68	3	1.01	9	3.04
Accident	-	-	1	.34	2	.68	3	1.01	1	.34	7	2.36
Dialysis	6	2.03	3	1.01	8	2.70	7	2.36	3	1.01	27	9.12
Urology	2	.68	-	-	1	.34	4	1.35	4	1.35	11	3.72
Total	37	12.50	59	19.93	52	17.57	78	26.35	70	23.65	296	100.00

TABLE 40

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY SEX

Diagnostic Category	Sex					
	Male		Female		Total	
	No.	%	No.	%	No.	%
Check-up	8	2.70	28	9.46	36	12.16
Obstetric/ Gynecology	-	-	41	13.85	41	13.85
Internal Medicine	26	8.78	27	9.12	53	17.91
Diabetes	4	1.35	6	2.03	10	3.38
Ears, Nose, & Throat	5	1.69	10	3.38	15	5.07
Oncology	5	1.69	21	7.09	26	8.78
Gastroenterology	2	.68	7	2.36	9	3.04
Orthopedics	17	5.74	26	8.78	42	14.53
Surgery	3	1.01	6	2.03	9	3.04
Neurology	4	1.35	5	1.69	9	3.04
Accident	4	1.35	3	1.01	7	2.36
Dialysis	10	3.38	17	5.74	27	9.12
Urology	8	2.70	3	1.01	11	3.72
Total	96	32.43	200	67.57	296	100.00

Table 41 presents the patient sample race distribution by diagnostic category. Patients of the white race represented the highest percentage of patients in all diagnostic categories.

Table 42 presents the patient sample employment status distribution by diagnostic category.

Table 43 presents the patient sample income level distribution by diagnostic category. The highest percentage of patients having incomes over $50,000 per year were in the diagnostic category "check-up". The highest percentage of patients who had incomes of below $10,000 per year were in the diagnostic category "internal medicine".

Table 44 presents the patient sample marital status distribution by diagnostic category. The highest percentage of single patients was found in the diagnostic category "dialysis". The highest percentage of married patients was found in the diagnostic category "internal medicine". The highest percentage of divorced patients were those in the "dialysis" category and the highest percentage of widowed patients were those in the "internal medicine" category.

Table 45 presents the patient sample diagnostic category distribution by the number of people presently living in the home. The sample was very diffuse, having no higher than 7.85% in any cell. The cell with 7.85% was

TABLE 41

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY RACE

Diagnostic Category	Race											
	White		Black		Hispanic		Oriental		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	32	10.77	4	1.35	-	-	-	-	-	-	36	12.12
OB/GYN	32	10.77	8	2.69	1	.34	-	-	-	-	41	13.80
Internal Medicine	43	14.48	11	3.70	-	-	-	-	-	-	54	18.18
Diabetes	10	3.37	-	-	-	-	-	-	-	-	10	3.37
Ears/Nose/Throat	14	4.71	-	-	-	-	-	-	1	.34	15	5.05
Oncology	26	8.75	-	-	-	-	-	-	-	-	26	8.75
Gastroenterology	8	2.69	1	.34	-	-	-	-	-	-	9	3.03
Orthopedics	34	11.45	9	3.03	-	-	-	-	-	-	43	14.48
Surgery	9	3.03	-	-	-	-	-	-	-	-	9	3.03
Neurology	8	2.69	1	.34	-	-	-	-	-	-	9	3.03
Accident	7	2.36	-	-	-	-	-	-	-	-	7	2.36
Dialysis	20	6.73	7	2.36	-	-	-	-	-	-	27	9.09
Urology	11	3.70	-	-	-	-	-	-	-	-	11	3.70
Total	254	85.52	41	13.80	1	.34	-	-	1	.34	297	100.00

TABLE 42

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY EMPLOYMENT STATUS

Diagnostic Category	Employment Status					
	Employed		Unemployed		Total	
	No.	%	No.	%	No.	%
Check-up	18	6.21	18	6.21	36	12.41
Obstetric/ Gynecology	17	5.86	24	8.28	41	14.14
Internal Medicine	18	6.21	35	12.07	53	18.28
Diabetes	4	1.38	5	1.72	9	3.10
Ears, Nose, and Throat	11	3.79	4	1.38	15	5.17
Oncology	10	3.45	15	5.17	25	8.62
Gastroenterology	3	1.03	4	1.38	7	2.41
Orthopedics	19	6.55	22	7.59	41	14.14
Surgery	6	2.07	3	1.03	9	3.10
Neurology	4	1.38	5	1.72	9	3.10
Accident	4	1.38	3	1.03	7	2.41
Dialysis	2	.69	25	8.62	27	9.31
Urology	5	1.72	6	2.07	11	3.79
Total	121	41.72	169	58.28	290	100.00

TABLE 43

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY INCOME LEVEL

Diagnostic Category	Annual Household Income											
	Below $10,000		$10,000 to $20,000		$21,000 to $35,000		$36,000 to $50,000		Over $50,000		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	6	2.22	12	4.44	6	2.22	6	2.22	4	1.48	34	12.59
Obstetric/Gynecology	8	2.96	16	5.93	9	3.33	3	1.11	2	.74	38	14.07
Internal Medicine	22	8.15	15	5.56	9	3.33	3	1.11	-	-	49	18.15
Diabetes	4	1.48	2	.74	2	.74	1	.37	-	-	9	3.33
Ears/Nose/Throat	5	1.85	3	1.11	6	2.22	1	.37	-	-	15	5.56
Oncology	11	4.07	4	1.48	6	2.22	4	1.48	1	.37	26	9.63
Gastroenterology	1	.37	3	1.11	3	1.11	-	-	-	-	7	2.59
Orthopedics	15	5.56	10	3.70	11	4.02	2	.74	1	.37	39	14.44
Surgery	1	.37	3	1.11	1	.37	1	.37	1	.37	7	2.59
Neurology	2	.74	3	1.11	2	.74	1	.37	-	-	8	2.96
Accident	2	.74	1	.37	2	.74	1	.37	-	-	6	2.22
Dialysis	18	6.67	6	2.22	-	-	-	-	-	-	24	8.89
Urology	2	.74	1	.37	4	1.48	1	.37	-	-	8	2.96
Total	97	35.93	79	29.26	61	22.59	24	8.89	9	3.33	270	100.00

TABLE 44

PATIENT SAMPLE--DIAGNSOTIC CATEGORY BY MARITAL STATUS

Diagnostic Category	Marital Status											
	Single		Married		Divorced		Widowed		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	3	1.01	26	8.75	1	.34	5	1.68	1	.34	36	12.12
Obstetric/Gynecology	5	1.68	35	11.78	-	-	1	.34	-	-	41	13.80
Internal Medicine	4	1.35	39	13.13	4	1.35	7	2.36	-	-	54	18.18
Diabetes	-	-	9	3.03	-	-	1	.34	-	-	10	3.37
Ears/Nose/Throat	2	.67	9	3.03	3	1.01	1	.34	-	-	15	5.05
Oncology	5	1.68	15	5.05	-	-	6	2.02	-	-	26	8.75
Gastroenterology	1	.34	7	2.36	-	-	1	.34	-	-	9	3.03
Orthopedics	3	1.01	30	10.10	4	1.35	6	2.02	-	-	43	14.48
Surgery	-	-	8	2.69	-	-	1	.34	-	-	9	3.03
Neurology	-	-	6	2.02	1	.34	2	.67	-	-	9	3.03
Accident	-	-	5	1.68	1	.34	1	.34	-	-	7	2.36
Dialysis	8	2.69	6	2.02	8	2.69	5	1.68	-	-	7	9.09
Urology	-	-	8	2.69	1	.34	2	.67	-	-	11	3.70
Total	31	10.44	203	68.35	23	7.74	39	13.14	1	.34	297	100.00

TABLE 45

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY NUMBER OF PEOPLE PRESENTLY LIVING IN HOME (INCLUDING SELF)

Diagnostic Category	Number of People Presently Living in Home										Total	
	1		2		3		4		5			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	1	.34	18	6.14	9	3.07	3	3.02	5	1.71	36	12.29
Obstetric/Gynecology	1	.34	17	5.80	6	2.05	9	3.07	7	2.39	40	13.65
Internal Medicine	5	1.71	23	7.85	12	4.10	8	2.73	6	2.05	54	18.43
Diabetes	1	.34	4	1.37	3	1.02	-	-	2	.68	10	3.41
Ears/Nose/Throat	3	1.02	7	2.39	2	.68	2	.68	1	.34	15	5.12
Oncology	5	1.71	7	2.39	5	1.71	6	2.05	2	.68	25	8.53
Gastroenterology	1	.34	1	.34	5	1.71	2	.68	-	-	9	3.01
Orthopedics	3	1.02	17	5.80	6	2.05	6	2.05	9	3.07	41	13.99
Surgery	1	.34	4	1.37	1	.34	3	1.02	-	-	9	3.07
Neurology	2	.68	2	.68	1	.34	2	.68	2	.68	9	3.07
Accident	1	.34	1	.34	3	1.02	2	.68	-	-	7	2.39
Dialysis	3	1.02	12	4.10	6	2.05	-	-	6	2.05	-	-
Urology	3	1.02	3	1.02	3	1.02	1	.34	1	.34	11	3.75
Total	30	10.24	116	39.59	62	21.16	44	15.02	41	13.99	293	100.00

those patients who are in the "internal medicine" diagnostic category and have 2 persons living in the home.

Table 46 presents the patient sample diagnostic category distribution by the number of persons living in the home over the age of 18 years. Again, the sample was diffuse, but the highest percentage in any one cell was the category of patients who were in the "internal medicine" diagnostic category and had 2 persons living in the home who were over age 18.

Table 47 presents the patient sample diagnostic category distribution by the number of persons in the home under the age of 18 years. The sample was diffuse, but the cell with the highest percentage of patients was the diagnostic category "internal medicine" by "0" number of persons in the home under age 18.

Table 48 presents the patient sample distribution by diagnostic category and the number of persons in the home over age 65. The highest percentage of responses fell in the category "internal medicine", with "0" number of persons in the home over age 65.

Table 49 presents the patient sample diagnostic category distribution by the length of time clinic services have been used. The sample was very diffuse, having no higher than 5.48% of responses in any cell. Patients in the diagnostic category "internal medicine" who have used clinic

TABLE 46

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY NUMBER OF PERSONS IN HOME OVER THE AGE OF 18 YEARS (INCLUDING SELF)

Diagnostic Category	Number of Persons in Home Over the Age of 18 Years											
	1		2		3		4		5		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	-	-	3	1.02	21	7.14	11	3.74	1	.34	36	12.24
Obstetric/Gynecology	2	.68	6	2.04	29	9.86	4	1.36	-	-	41	13.95
Internal Medicine	1	.34	9	3.06	31	10.54	10	3.40	3	1.02	54	18.37
Diabetes	-	-	1	.34	6	2.04	3	1.02	-	-	10	3.40
Ears/Nose/Throat	-	-	3	1.02	11	3.74	1	.34	-	-	15	5.10
Oncology	4	1.36	3	1.02	11	3.74	7	2.38	-	-	25	8.50
Gastroenterology	-	-	1	.34	5	1.70	3	1.02	-	-	9	3.06
Orthopedics	5	1.70	3	1.02	26	8.84	5	1.70	2	.68	41	13.95
Surgery	-	-	1	.34	8	2.72	-	-	-	-	9	3.06
Neurology	-	-	3	1.02	5	1.70	1	.34	-	-	9	3.06
Accident	-	-	1	.34	3	1.02	3	1.02	-	-	7	2.38
Dialysis	2	.68	2	.68	12	4.08	8	2.72	3	1.02	27	9.18
Urology	-	-	3	1.02	5	1.70	1	.34	2	.68	11	3.74
Total	14	4.76	39	13.27	173	58.84	57	19.39	11	3.74	294	100.00

TABLE 47

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY NUMBER OF PERSONS IN THE HOME UNDER THE AGE OF 18 YEARS (INCLUDING SELF)

Diagnostic Category	Number of Persons in Home Under the Age of 18 Years											
	0		1		2		3		4 or More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	20	7.25	7	2.54	3	1.09	1	.36	1	.36	36	11.59
Obstetric/Gynecology	17	6.16	7	2.54	8	2.90	7	2.54	1	.36	40	14.49
Internal Medicine	30	10.87	7	2.54	9	3.26	2	.72	2	.72	50	18.12
Diabetes	5	1.81	2	.72	1	.36	-	-	1	.36	9	13.26
Ears/Nose/Throat	9	3.26	4	1.45	1	.36	1	.36	-	-	15	5.43
Oncology	14	5.07	2	.72	7	2.54	1	.36	-	-	24	8.70
Gastroenterology	4	1.45	2	.72	2	.72	-	-	-	-	8	2.90
Orthopedics	18	6.52	12	4.35	3	1.09	3	1.09	3	1.09	39	14.13
Surgery	4	1.45	1	.36	3	1.09	-	-	-	-	8	2.90
Neurology	5	1.81	-	-	1	.72	1	.36	-	-	8	2.90
Accident	3	1.09	2	.72	1	.36	-	-	-	-	6	2.17
Dialysis	20	7.25	-	-	2	.72	-	-	4	1.45	26	9.42
Urology	20	7.25	-	-	2	.72	-	-	-	-	11	3.99
Total	156	56.52	50	18.12	42	15.22	16	5.80	12	4.35	276	100.00

TABLE 48

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY NUMBER OF PERSONS IN THE HOME OVER THE AGE OF 65 YEARS (INCLUDING SELF)

	Number of Persons in Home Over the Age of 65 Years											
	0		1		2		3		4 or More		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	23	8.13	3	1.06	8	2.83	-	-	1	.35	35	12.37
Obstetric/Gynecology	40	14.13	-	-	1	.35	-	-	1	.35	41	14.49
Internal Medicine	31	10.95	7	2.47	13	4.59	-	-	-	-	51	18.02
Diabetes	7	2.47	1	.35	1	.35	-	-	-	-	9	3.18
Ears/Nose/Throat	10	3.53	3	1.06	2	.71	-	-	-	-	9	3.18
Oncology	18	6.36	5	1.77	-	-	1	.35	-	-	24	8.48
Gastroenterology	6	2.12	2	.71	1	.35	-	-	-	-	9	3.18
Orthopedics	5	8.83	7	2.47	6	2.12	-	-	-	-	38	13.43
Surgery	6	2.12	1	.35	2	.71	-	-	-	-	9	3.18
Neurology	6	2.12	1	.35	2	.71	-	-	-	-	9	3.18
Accident	5	1.22	2	.71	-	-	-	-	-	-	7	2.47
Dialysis	16	5.65	6	2.12	4	1.41	-	-	-	-	26	9.19
Urology	6	2.12	1	.35	3	1.06	-	-	-	-	10	3.53
Total	199	70.32	39	13.78	43	15.19	1	.35	1	.35	283	100.00

TABLE 49

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY THE LENGTH OF TIME THAT CLINIC SERVICES HAVE BEEN USED

	Length of Time That Clinic Services Have Been Used (Years)									
	Less Than One Year		1 to 5 Years		6 to 10 Years		Over 10 Years		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	4	1.37	10	3.42	10	3.42	11	3.77	35	11.99
Obstetric/Gynecology	11	3.77	14	4.79	10	3.42	6	2.05	41	14.04
Internal Medicine	10	3.42	16	5.48	12	4.11	16	5.48	54	18.49
Diabetes	4	1.37	1	.34	2	.68	3	1.03	10	3.42
Ears, Nose, and Throat	4	1.37	6	2.05	1	.34	4	1.37	15	5.14
Oncology	6	2.05	3	1.03	5	1.17	11	3.77	25	8.56
Gastroenterology	1	.34	3	1.03	-	-	5	1.71	9	3.08
Orthopedics	9	3.08	15	5.14	5	1.71	12	4.11	41	14.04
Surgery	2	.68	1	.34	3	1.03	3	1.03	9	3.08
Neurology	4	1.37	-	-	2	.68	3	1.03	9	3.08
Accident	1	.34	3	1.03	1	.34	2	.68	7	2.40
Dialysis	8	2.74	10	3.42	2	.68	7	2.40	27	9.25
Urology	3	1.03	4	1.37	-	-	3	1.03	10	3.42
Total	67	22.95	86	29.45	53	18.15	86	29.45	292	100.00

services for more than 10 years represented the highest percentage of responses in any one cell (5.48%).

Table 50 presents the patient sample diagnostic category distribution by reason to first decide to use clinic services. The highest percentage of patients who were physician referred were in the diagnostic category "internal medicine". The highest percentage whose decision was based on advice of a family member or friend were those patients in the "OB/GYN" category. Very few patients (1.34%) based their decision on printed information.

Table 51 presents the patient sample diagnostic category distribution by type of insurance coverage. The diagnostic category with the highest percentage of responses in the "none" category of insurance coverage were those patients classified as "OB/GYN". "OB/GYN" patients also had the highest percentage of responses in the category of insurance coverage "group insurance through an employer". The highest percentage of medicaid patients were "internal medicine", "OB/GYN", and "orthopedics". Categories relevant to private coverage and other forms of coverage had few responses.

(4) Assessment for Significant Differences Between Levels of Patient Satisfaction and Provider's Perceived Levels of Patient Satisfaction

Of the 43 items of the Ware Patient Satisfaction Questionnaire, 17 items representative of the 5 subscales of

TABLE 50

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY REASON FOR FIRST DECIDING TO USE THE SERVICES OF THE CLINIC

Diagnostic Category	Reason for First Deciding to Use Clinic Services											
	Doctor Referral		Advice of a Family Member		Advice of a Friend		Printed Information		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	12	4.41.	9	3.31	13	4.78	-	-	1	.37	35	12.87
Obstetric/Gynecology	5	1.84	16	5.88	15	5.51	1	.37	2	.74	39	14.34
Internal Medicine	24	8.82	13	4.78	8	2.94	2	.74	3	1.10	50	18.38
Diabetes	8	2.94	1	.37	-	-	-	-	-	-	9	3.31
Ears/Nose/Throat	5	1.84	6	2.21	3	1.10	-	-	-	-	14	5.15
Oncology	13	4.78	2	.74	5	1.84	1	.37	3	1.10	24	8.82
Gastroenterology	5	1.84	1	.37	2	.74	-	-	1	.37	9	3.31
Orthopedics	19	6.99	5	1.84	8	2.94	-	-	5	1.84	37	13.60
Surgery	1	.37	2	.74	3	1.10	-	-	-	-	6	2.21
Neurology	5	1.84	1	.37	-	-	-	-	3	1.10	9	3.31
Accident	3	1.10	1	.37	1	.37	-	-	1	.37	6	2.21
Dialysis	15	5.51	3	1.10	1	.37	-	-	5	1.84	24	8.82
Urology	6	2.21	1	.37	2	.74	-	-	1	.37	10	3.68
Total	121	44.49	61	22.43	61	22.43	4	1.47	25	9.19	272	100.00

TABLE 51

PATIENT SAMPLE--DIAGNOSTIC CATEGORY BY TYPE OF MEDICAL INSURANCE COVERAGE

	Type of Medical Insurance Coverage													
	None		Group Insurance Through Employer		Medicaid		Medicare		Private Policy		Other		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Check-up	-	-	17	8.46	1	.50	2	1.00	-	-	1	.50	21	10.45
Obstetric/Gynecology	6	2.99	28	13.93	3	1.49	-	-	-	-	1	.50	38	18.91
Internal Medicine	3	1.49	23	11.44	3	1.49	5	2.49	-	-	1	.50	35	17.41
Diabetes	-	-	6	2.99	-	-	1	.50	-	-	-	-	7	3.48
Ears, Nose, and Throat	2	1.00	8	3.98	-	-	-	-	-	-	-	-	10	4.98
Oncology	1	.50	13	6.47	1	.50	1	.50	2	1.00	-	-	18	8.96
Gastroenterology	2	1.00	4	1.99	-	-	-	-	-	-	-	-	6	2.99
Orthopedics	1	.50	18	8.96	3	1.49	1	.50	2	1.00	2	1.00	27	13.43
Surgery	-	-	6	2.99	-	-	-	-	-	-	-	-	6	2.99
Neurology	-	-	4	1.99	-	-	1	.50	-	-	-	-	5	2.49
Accident	-	-	5	2.49	-	-	1	.50	-	-	1	.50	7	3.48
Dialysis	-	-	3	1.00	2	1.00	7	3.48	1	.50	-	-	12	5.97
Urology	-	-	5	2.49	-	-	1	.50	3	.49	-	-	9	4.48
Total	15	7.46	139	69.15	13	6.47	20	9.95	8	3.98	6	2.99	201	100.00

patient satisfaction were chosen for comparison of patients' levels of satisfaction with care to providers' perceptions of levels of patient satisfaction. Patient satisfaction scores for each of the 17 items were compared to providers scores for those same items.

Two-way analysis of variance was used to assess for significant differences between levels of patient satisfaction and provider's perceptions of patient satisfaction. The .05 level of confidence was chosen for statistical significance.

Initially, the entire group of providers (ancillary personnel, nurses, and physicians) were compared to patients. Significant differences in the perceptions of satisfaction were found on 7 of the 17 items (41%). When ancillary providers were compared to patients, significant differences were found for 10 of 17 items (59%). A comparison of nurses to patients showed significant differences for 12 of 17 items (71%). Physicians' responses, when compared to patients' responses revealed differences for 4 of 17 items (24%). Table 52 summarizes those findings by item.

Summary

The steps of the methodological model not accomplished by Chapter II (Review of the Literature) were included in Chapter IV.

TABLE 52

PATIENT SATISFACTION BY PROVIDER PERCEPTION OF PATIENT SATISFACTION
SUMMARY OF ANALYSIS FOR SIGNIFICANT DIFFERENCES

Question Number	Patient Satisfaction Index Measured	Patient Scores by Provider Scores			
		All Provider Groups vs Patients	Ancillary Personnel vs Patients	Nurses vs Patients	Physicians vs Patients
1	Access	-1.92	-2.06*	- .31	- .27
2	Availability	.52	2.02*	2.11*	.07
3	Continuity of Care	- .09	1.13	- .40	-1.84
4	Finances	-6.82*	-4.82*	-4.18*	-4.38*
5	Doctor Conduct	-5.63*	-4.33*	-2.44*	- .03
6	Finances	.09	.16	1.85	- .42
7	Doctor Conduct	- .02	-4.76*	.11	- .58
8	Doctor Conduct	-22.08*	-2.61*	-2.18*	-1.07
9	Finances	.88	1.07	2.99*	.29
10	General Satisfaction	-9.39*	-8.66*	6.38*	-1.82

TABLE 52 (Continued)

Question Number	Patient Satisfaction Index Measured	Patient Scores by Provider Scores			
		All Provider Groups vs Patients	Ancillary Personnel vs Patients	Nurses vs Patients	Physicians vs Patients
11	General Satisfaction	5.07*	4.56*	3.53*	2.28*
12	Access	-4.63*	-3.74*	-1.98*	-2.21*
13	Access	2.20*	1.71	2.18	1.00
14	Access	1.12	1.48	4.38*	- .34
15	Access	1.62	1.82	4.68*	- .32
16	Access	.43	- .07	3.01*	- .05
17	Access	1.16	2.91*	1.35	-2.08*

Note: When the observed T value falls outside of the range between -1.96 and 1.96, there is a significant difference at the .05 level.

*Represents those comparisons that revealed significant differences at the .05 level.

TABLE 52 (Continued)

Question #	Question Description
1.	If our patients have a medical question, someone can be reached for help without any problem.
2.	There are enough family physicians in this clinic.
3.	Patients at this clinic hardly ever see the same doctor when they come for medical care.
4.	The fees that that our physicians charge are too high.
5.	Our physicians always do their best to keep the patients from worrying.
6.	Our physicians always avoid unnecessary expenses.
7.	Physicians hardly ever explain medical problems to the patient.
8.	Our physicians don't advise patients about ways to avoid illness or injury.
9.	Patients can get medical care easily even if they don't have money with them.
10.	Our patients are very satisfied with the medical care they receive.
11.	There are things about the medical care that our patients receive that could be better.
12.	There are enough specialists in this clinic.
13.	It is hard for our patients to get an appointment for medical care right away.
14.	The location of this clinic is convenient to the patients.
15.	The office hours of this clinic are good for most patients.
16.	It takes a long time for most of our patients to get to the clinic.
17.	Patients are usually kept waiting a long time at this clinic.

External data was presented by discussion/listing. Internal data that resulted from administration of both the patient and provider survey instruments was presented by discussion, listing, and in tabular form. Simple enumeration and statistical analysis of patient and provider data was also reported.

The final steps of the methodological model (identification of market opportunities and identification of additional research needed) will be accomplished in Chapter V, as will the need or lack of need to revise the model.

CHAPTER V

MARKET OPPORTUNITIES AND THE NEED FOR ADDITIONAL RESEARCH

Chapter V addresses steps of the methodological model that do not appear in previous sections. Identification of market opportunities and identification of additional research needed will be included.

A. IDENTIFICATION OF MARKET OPPORTUNITIES

For this study, a comprehensive analysis of data was completed by the researcher. Significant findings resulting from the analysis of data, review of all internal primary data and external secondary data, and the comprehensive literature review of Chapter Two provided both quantitative and qualitative information to identify market opportunities. Creative input (or value judgment) was provided by the researcher.

An extensive information base resulted from completion of the various steps of the model, so that many market opportunities were readily identified. In addition, some of the accumulated information suggested possible opportunities, yet additional exploration would be necessary for further clarification. A listing of apparent market opportunities follows. Where applicable, the need for further research was stated.

1. Apparent Market Opportunities Revealed by the Application of the Model

a. Reduction of Patient Waiting Time/ Improved Time Management

Analysis of the accumulated data revealed that reduction of patient waiting time/improved time management within the clinic represents major market opportunities. The following findings are supportive of that conclusion:

1. Assessment of the results of the provider questionnaire indicated that the clinic personnel feel that the length of waiting time is a major weakness of the clinic.
2. Open-ended questions of the provider questionnaire asked what should be done differently at the clinic and asked what would increase the level of patient satisfaction within the clinic. Decreased patient waiting time was listed as a priority by personnel.
3. Physician providers (who are generally responsible for extended waiting time) agreed that patients are waiting too long. About 53% of physicians felt that patients wait too long to see their physician. Thirty-four percent of physician providers were not sure whether or not patients were kept waiting too long.

4. The patient questionnaire revealed that better scheduling procedures and/or decreased patient waiting time is a major concern relevant to their use of the clinic. Sixty percent of patients either agreed or strongly agreed that they are kept waiting a long time at the clinic.
5. The literature suggests that better time management within health care settings can reduce patient waiting time.
6. Since waiting time may be highly dependent on the behavior of the physician and/or the nature of the specialty area (such as surgical versus family practice), additional research within the clinic might identify those physicians who are consistently behind scheduled appointment times. Identification of those areas in which an opportunity for reduction of waiting does exist, would serve to more closely target corrective efforts relevant to extended patient waiting time.

b. Provider Education

Education of providers was found to be a major market opportunity based on the following findings of this investigation:

1. Analysis of the accumulated data revealed the

need for provider education relevant to the reduction of patient waiting time. Specifically, since there are identified means to manage time more effectively in health care settings (according to current literature), education could be given to providers relevant to reduction of patient waiting time in their area of practice, hopefully encouraging the needed changes. Quality assurance measures might be instituted to facilitate needed changes.

2. The extreme increase in litigation relevant to malpractice suggests the need to educate providers regarding means of reducing their risks of malpractice lawsuits. Many variables have been identified as contributory to lawsuits. In addition to quality control measures within medical practices, a major component of a patient's decision to sue their care provider is their level of satisfaction with care. Satisfaction with care is dependent upon many factors, of which many providers are unaware. Physicians, as well as nurses and ancillary personnel, may not understand the importance of those factors relevent to their risk of lawsuits.
3. Analysis of the patient questionnaire revealed

that patients had lower levels of satisfaction relevant to the "doctor conduct" aspects of care than with any other aspect of care measured. This represents an opportunity to educate/inform physicians about those factors that are important to patients, hopefully resulting in changes that will lead to higher levels of patient satisfaction with care.

4. A comparison of provider and patient data revealed that there were significant differences between patient satisfaction scores and provider's perceived levels of patient satisfaction. There were significant differences found between patients and all three provider groups. This fact suggested that there is an opportunity to educate providers relevant to the nature patient satisfaction, so that they are at least more aware of the factors involved in patient satisfaction, and so that providers might attempt to increase levels of patient satisfaction by appropriate actions.
5. The provider questionnaire indicated that providers desire better/more inservice education. Further research within the clinic relevant to the type of education needed might define specific educational opportunities.

6. Problems relevant to provider's attitudes/ behaviors were revealed by both the patient and provider questionnaire, which again suggested the need to educate providers about various aspects of patient satisfaction. Education about specific diseases could help patient-staff interactions in those areas that have a high volume of patients who have a common diagnosis, such as oncology or obstetrics.

c. The Physical Plant and/or Equipment

The following findings revealed opportunities relevant to the physical plant or equipment:

1. Patient satisfaction increases when the clinical environment is comfortable and aesthetically pleasing to the patient. Also, patient satisfaction is said to be higher if the patient feels that equipment used by the provider is modern/technologically advanced.
2. Comfort variables relevant to the clinical setting have become more important since competitive trends have developed.
3. Employee satisfaction (that leads to improved performance and perhaps increased levels of patient satisfaction) is elevated if comfort needs are met. Availability of needed equipment

also increases employee satisfaction.

4. Both the patient and provider questionnaire revealed specific complaints/suggestions for improvements relevant to the physical plant and equipment. Those specific comments represent potential opportunities for improvements to the care environment. For example, parking access was found to be a weakness of the clinic. Forty-five percent of ancillary providers felt that parking is below average or poor, 46% of nurses found parking to be below average or poor, and 21% of physicians found parking to be below average or poor. Within the clinic, parking for providers does vary according to position. Sixty-five percent of patients felt that parking is not a problem. Improvement of parking designation for employees probably represents an opportunity to increase employee satisfaction. Similarly, many other aspects of the clinic (relevant to physical plant or equipment) were thought to be in need of improvement/change, according to both patients and providers. Further research within the clinic might help define priorities within those needs that were found as a result of the study.
5. The provider questionnaire revealed that the

physical plant/equipment needs are major weaknesses of the clinic. When asked what should be done differently at the clinic (via provider questionnaire), providers listed physical aspects and equipment needs as a priority. The need for a more attractive clinic environment was also listed as a major need by both patients and providers.

6. Access to the care facility is a major component of patient satisfaction, thus location is important. Results of the provider questionnaire indicated that the location is convenient to patients, but 53% of physicians, 44% of nurses, and 48% of ancillary employees did not know how long it takes patients to get to the facility. Fifty-seven percent of patients either disagreed or strongly disagreed that it takes a long time to get to the clinic. The literature suggests that the more highly specialized the service, the less important the location (in the eyes of the consumer). That factor might be deemed important in planning for satellites of the clinic. In other words, primary care might be the most appropriate service to offer in a satellite of the clinic, whereas highly specialized services perhaps should be

kept within the main clinic or at least close to the main clinic. Data collected relevant to the demographics of the provider's area did reveal information that would seem to be of use in determining future sites of satellites. For instance, some counties are not expected to increase in population size over the next five years, whereas some counties are predicted to incur increases. Though the demographic data is not conclusive relevant to opportunities for satellite location, some information collected may help in determining future research efforts relevant to location aspects of clinic services. In addition, provider data revealed that the clinic location is a major "strength." For that reason, improvements relevant to access of the main clinic might be viewed as a major opportunity.

d. Improvement of Communication

Improvement of communication within the clinic was found to be a major opportunity based on the following findings of the investigation:

1. The literature suggests that personnel input (or a participative form of management) is valuable in identifying needs, potential products and

solutions to problems within organizations. The provider questionnaire provided an opportunity for personnel to express their ideas and complaints relevant to the clinic. An abundance of ideas were expressed by the employees, which apparently means that personnel do have ideas about clinic operations that are not routinely heard by managers. This represents an opportunity to develop an ongoing means of communication within the clinic. Further research using focus groups might help define the needed type of communication. Also, further research might help determine the need to add an additional tier of management or alter management style (using a product management format, for example), to achieve more adequate communication within the organization.

2. Analysis of both the patient and provider questionnaires revealed a perceived lack of communication at all levels of the clinic organization.
3. A better mode of communication within the clinic could possibly help resolve the attitudinal problems that were documented by patient and provider questionnaire.
4. The needs relevant to the physical plant,

equipment, staffing, or other aspects of the clinic might be handled more efficiently if they were brought to the attention of management via more effective communication channels.

5. Over 50% of the provider samples (physician, ancillary and nurse samples) responded that they felt they should have more input in clinic decisions. Ninety percent of ancillary employees felt that they have little or no input in clinic decision-making processes. Seventy percent of nurses felt they have little or no input, and 63% of physicians felt they have some or little input. Only 26% of physicians felt that they have great or very great input in clinic decisions.
6. The literature suggests that patients seldom criticize health care providers outright, but the anonymous questionnaire did evoke many concerns of patients. The development of a continued and ongoing means of gathering patient complaints and/or suggestions represents a major clinic opportunity. A continuing method of collecting patient data should be advantageous to clinic efforts to maintain or improve levels of patient satisfaction. Patients' complaints or suggestions might be more effectively

addressed, also, if there was better communication clinic-wide.

e. Addition of Specific Specialists and Services

Opportunities relevent to the addition of specific specialists and services within the clinic were suggested by the findings related to this area:

1. Analysis of both the patient and provider questionnaire revealed a number of suggestions for specific specialists or services that were felt to be needed within the clinic.
2. Review of the literature yielded information relevant to potential opportunities with respect to the interplay between external and internal factors. For example, the county of the provider had a higher population of females than some surrounding counties in the district. Also, approximately 68% of the clinic's patients were female. Development of new services (or the addition of specialists particularly oriented toward women's health) is an apparent market opportunity. Attempts to improve the physical environment of the clinic might also target the female population (especially in some areas of the clinic - such as OB/GYN). Another example of opportunities made apparent by

examining the interplay of external and internal data is the apparent need to develop services relevant to the aging population. Predictions of an enormous elderly population, coupled with the need for adequate health services for them (as noted in the State Health Plan), seem to represent an opportunity for the clinic. Forty-nine percent of the clinic patients were over age 46 and 23% were over age 65.

3. Alternative financial arrangements seemed to be a need of the clinic's patients and may represent an opportunity to provide a needed service.

f. Opportunities Relevant to Personnel Management

Apparent opportunities relevant to personnel management were revealed through analysis of the accumulated information, and include the following:

1. A comparison of patient and provider demographic information revealed discrepancies that might contribute to poor communication and/or patient dissatisfaction. There is an apparent opportunity to alter personnel hiring policies regarding hiring practices so that patient and provider demographics are more closely matched. Factors that contributed to the identification of that opportunity are:

a. The age of the providers was found to be much younger than the age of the patients (generally). Forty-nine percent of the patient population was over age 46. Only 14% of ancillary providers, 19% of nurses, and 26% of physicians were over age 46.

b. Black patients represented about 14% of the patient population, yet only 8% of ancillary personnel and 2% of nurses were black. There were no black physicians.

c. Over two-thirds of the patient population were of female gender, yet 100% of the physician providers are male. A disproportionate number of females was found among ancillary and nurse providers: male patients accounted for about 30% of the patient population, yet there were no male nurses and only 9.76% of ancillary personnel were male.

d. Generally, E.E.O.C. guidelines suggest that the demographic description of the organization should closely approximate the population served.

e. Since 91.24% of ancillary employees were female and 100% of nurses were female, there may be a need to add female representation

(or advocacy) to the personnel management function if the personnel officer is male. This addition might improve communication as well as help define and resolve problems.

2. State health care goals included an aim for provision of health care personnel to rural areas. There may be an opportunity to work with (or at least gain support from) the state government in supplying the needed personnel. The literature suggests the need to solidify referral bases (because of increased competition) therefore staffing and/or recruitment (and perhaps physical expansion or satellite development) targeting rural areas might be an opportunity to maintain/increase referrals from those areas. Several of the counties surrounding the provider site are considered 100% rurally populated. Further research might help define the most fruitful areas for clinic development.
3. Review of the provider questionnaires revealed an array of complaints relevent to personnel policies. Additional research might prove beneficial to delineate priorities relevant to opportunities for personnel management. Since there were numerous complaints, there may be an

underlying need for a more formalized grievance policy for personnel, or a system to recognize and resolve problems related to personnel management.

4. The patient questionnaire evoked patient complaints relevant to problematic attitudes of employees. This may represent an opportunity to improve the attitude of staff towards patients through better communication and/or appropriate training for providers. Perhaps a more formalized method of channeling patient input to management personnel would help identify and resolve problems. The literature has indicated that other providers have found such methods helpful. An example of such a method is the addition of a patient ombudsman or patient advocate, to act as a liaison between patients and providers.
5. Marketing goals can best be facilitated if personnel policies and procedures are consistent with marketing goals. Behavioral quality aspects of care such as personnel interest, kindness and a sympathetic manner need to be exemplified by providers for patients to have a high degree of satisfaction regarding that aspect of care. Hurrying the patient,

inadequate time spent with the patient, poor patient instruction, and extensive waiting time should be eliminated. Increased effort toward inservice education, personnel communication/ problem resolution for all levels of personnel seems to be an opportunity. It is recognized that the majority of patient time within clinic settings is spent with personnel other than the physician, so efforts to improve relationships between patients and nurses or ancillary personnel would seem advantageous to the clinic.

6. Provider's comments, via the provider questionnaire, revealed that a clinic strength was "attitudinal factors," but the category "attitudinal factors" was also listed as a weakness of the clinic. A system to reward patient-oriented attitudes among providers, as well as to discourage poor attitudes toward patients, would seem to be an opportunity for the clinic to promote the positive aspects of patient-provider interactions and to perhaps reduce the incidence of poor patient-provider interactions.

g. Opportunities Related to Promotion

Review of the literature and other findings revealed opportunities relevant to promotion, including:

1. Providers stated specific strengths of the clinic that could be promoted both internally and externally. For instance, the providers felt that they physicians (and various factors relevant to the physicians, such as their competence) are a major strength of the clinic. The supporting staff of the clinic (nurses and ancillary employees) were also thought to be a major strength of the clinic. It is questionable whether consumers can judge clinical competence, but, promotionally, the consumer's perception of the provider's competence could be enhanced by announcing recent workshops/ conferences attended, hanging diplomas in highly visable areas, having a display in which a particular physician is recognized (on a rotating basis), to communicate the background, hobbies, "human aspects," or particular clinical interests of the provider. The identified strengths of the clinic should represent promotional opportunities if communicated well to the public.
2. Both patient data and secondary internal data

revealed a profile of population characteristics that should help target promotional efforts. For instance, analysis of the geographic distribution of patients, demographic characteristics, and psychographic characteristics (patient satisfaction indexes) leads to the identification of opportunities for promotion. For example, the number of patients over age 65 within the clinic, 23%, identified an opportunity for promotional efforts targeting that group, even if only to facilitate their functioning within the clinic system. Also, the number of married patients within the clinic, 66%, suggested that promotional efforts should target that group. Additional research could help define the particular needs of those large segments of the clinic's patient population, and would help to refine promotional efforts. For example, a focus group study of married patients in the age group between 25 and 64 years of age (62% of the patient population) could yield further information about the characteristics of that market, aiding promotional efforts.

3. Patient data revealed that only a small number of patients (1.27%) first decided to use clinic services as a result of printed information, but

that group also had a significantly higher level of patient satisfaction for access aspects of care. There may be an opportunity to use printed material more extensively or to find out why access to clinic services is better for services that have been promoted through printed material.

4. Analysis of patient data also revealed that 39% of first visits resulted from physician referral. Identification of referring physicians and taking steps needed to nurture, strengthen, or solidify relationships with those physicians represents a major opportunity. Also, actions to solicit referrals from non-referring physicians might also be considered an opportunity. Information provided by the patient questionnaire could help determine those diagnostic categories in which physician referral is the most important mechanism in obtaining new patients, and further research within the clinic could also help determine geographic areas (or particular physicians outside of the clinic) that should be targeted for promotional campaigns to increase physician referrals.
5. Forty-one percent of the patient sample stated that the factor responsible for their first

clinic visit was advice from a family member or friend. The diagnostic category in which this was most often the case was "obstetrics and gynecology." For the clinic as a whole the large number of visits resulting from positive word of mouth suggests a major opportunity to improve the patient's level of satisfaction with the care experience internally. Also, further investigation within the clinic might help determine a mechanism that would reward patients who refer other patients, thereby encouraging repeat behavior.

6. Analysis of patient data resulted in a list of patient suggestions of services that are needed at the clinic, but not offered. Some of the suggestions were stated as complaints. Generally, patients tend to be reluctant to criticize their health care provider; therefore, those comments evoked by the patient questionnaire might be considered especially important. If, as the literature suggests, patient satisfaction is a major marketing tool, then their suggestions might be further researched and perhaps changes implemented with the clinic accordingly. Since the patient sample remained anonymous during the study, patients may have

offered their input more readily than usual. That might indicate a need to develop a method to develop a method to obtain patient input on a frequent basis. Patients tend to internalize complaints, and perhaps change health care providers, rather than complain. A patient advocate or ombudsman could act as an intermediary between the patients and providers, perhaps encouraging the sharing of problems and potential solutions. Additionally, focus group research might provide more information to the provider about their image with the patients.

7. Patient data indicated that 45% of the patient sample had group insurance through their employer. Further research (with appropriate survey instruments for example), might indicate if opportunities exist relevant to contractual arrangements with employers or opportunities to market health care services of the clinic to corporations. Where that type of arrangement already is present, there may be a need to measure the level of employer satisfaction with clinic services.
8. Patient satisfaction scores relevant to availability of the provider were found to be significantly lower for those patients who were

pysician referred. Further specific research efforts might reveal opportunities relevant to the scheduling procedures, waiting time or communication concerning physician-referred patients.

9. Provider data indicated many ratings of "poor" when the providers gave their perceptions of clinic services. Additional research is needed to reveal solutions for those areas that were poorly rated. If the problems were addressed and corrected, the provider's perceived image of the clinic should improve, thereby facilitating internal marketing efforts. The literature has suggested that if staff members have a poor image of their organization, marketing efforts can be negatively affected.
10. The patient questionnaire showed that more and/or improved patient education was the third most frequent suggestion made by patients when they were asked what services were needed by the clinic, but were not offered. This represents an opportunity for promotional efforts and also to improve patient satisfaction with services. The information gathered during the study could help determine specific educational needs and/or the target population for educational programs.

The provider questionnaire showed that only a small percentage of providers rated the clinic's patient education efforts as "excellent." About 50% of providers rated those efforts "average," and about 16% of physicians rated that aspect "below average" or "poor." Similarly, health and wellness promotion by the clinic was not highly rated by clinic providers. Another factor supporting the need of improved patient education was that the patients whose self-perceived diagnosis was listed as diabetes had a significantly higher level of satisfaction with care for the "continuity of care" aspect. Additional research might serve to define why those patients are more satisfied. Interestingly, diabetes education has been the only well developed patient education program within the clinic to date.

11. Analysis of the open-ended questions of the provider questionnaire showed that providers felt that promotional efforts within the clinic need to be increased and/or improved.

h. Other

1. Patients whose self-perceived diagnosis was in the "gastroenterology" or "dialysis" category

were found to have significantly lower patient satisfaction scores for more than one aspect of care. Further research might define differences in care provision for those patients that might account for the lower levels of satisfaction. Patients whose diagnostic category was "diabetes," "ear, nose and throat," and "neurology" had significantly higher scores for more than one aspect of patient satisfaction. Again, further research might help determine why those differences exist so that remedial efforts could be instituted where appropriate.

2. Internal medicine and orthopedic (self-perceived diagnostic category) patients seemed to be more apt to come to the clinic as a result of physician referral. Further research might confirm that. Those areas of the clinic that are more heavily dependent on physician referrals as a source of patients could perhaps endeavor to strengthen their ties with referring physicians.
3. "Obstetrics/Gynecology" had the highest number of patients who listed advice of a family member or friend as the reason for first deciding to use clinic services. Since positive word of mouth is dependent on satisfaction with

services, it would seem that there is an opportunity to enhance patient satisfaction with services within the OB/GYN section of the clinic. Further research within that group of patients could help determine what actions could lead to higher patient satisfaction and could help define marketing goals for that section of the clinic.

4. The diagnostic category that had the largest patient population with an income of over $50,000 per year was "check-up." Attempts to target the high income patient population might be made through increasing patient satisfaction with those office visits that are deemed "check-ups." In other words, there may be an opportunity to increase, revise, or upgrade the procedures utilized during elective or follow-up care to afford a higher level of patient satisfaction with care.

i. Summary

The preceding section described the nature of market opportunities made apparent by completing the model within a medical group practice setting. Major categories of opportunities that were found included reduction of patient waiting time/improved time management, provider education,

physical plant or equipment improvements, improvement of communication, addition of specialists and/or services, changes in personnel management, improvements in or increased promotional efforts and miscellaneous opportunities.

Provider and patient verbatim responses to open-ended questions supported those categories of opportunities that were listed. Other supporting information/data was included in the literature review, as well as internal and external data.

While there was extensive support for the opportunity, no further clarification of the opportunity was needed. For instance, where the opportunity for reduction of patient waiting time/improved time management was extensively documented by patient response, provider response and other data/information, further clarification of the opportunity was not indicated. Still, major questions remained (for management or the management team) and were strategic or action-oriented. For instance, in what departments within the clinic does the opportunity to reduce patient waiting time exist? Another example was how to best facilitate the needed change in that area.

In contrast, some categories of opportunity clearly needed additional research to clarify the opportunigy before action could be taken. However, specific comments of

providers or patients delineated the basis for further study.

For example, one category of opportunity was improvements regarding the physical plant/equipment. A specific suggestion (within that category) was made by both a provider and a patient. The suggestion was to replace standard examination tables within the OB/GYN area of the clinic with motorized examination tables. Other OB/GYN clinics have purchased motorized exam tables that move the patient from a sitting position (for history-taking/interview) to a lithotomy position (the position commonly used for pelvic examinations). The motorized chairs apparently are perceived by the patients (and ancillary personnel) as less awkward and "state-of-the art." A survey of OB/GYN patients within the clinic is evidently needed to determine just how much of an opportunity that represents. A survey, including additional comfort variables (such as the use of cloth gowns as opposed to paper gowns) might be helpful in determining the desires of the patients.

Further research of similar apparent opportunities would yield data to support managerial decisions. Inappropriate expenditures (those expenditures made with inadequate supporting data) could be avoided. Conversely, appropriate expenditures (those with adequate supporting data) could be acted upon.

In summary, the analysis of accumulated data revealed many obvious opportunities and also revealed opportunities requiring further research prior to definition of actual managerial or marketing strategies.

CHAPTER VI

MODEL REVISION, SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Chapter Six includes revision of the model followed by a brief summary, conclusions, and recommendations of the study.

A. REVISION OF THE MODEL

Application of the model within a medical group practice setting did result in the identification of market opportunities for the group (as an entirety).

No revisions of the steps of the model were necessary to define the market opportunities for the group. Various refinements of methodology could, however, contribute to increased specificity of the identified opportunities.

1. Grouping the Patient Sample by Specific Physicians

For the study, the patient data were collected at reception areas shared by more than one physician. No attempt was made to identify which physician was being seen by the patient; therefore, the accumulated patient data yielded information about many physicians.

Since the level of patient satisfaction is heavily dependent on the personal interaction between the physician

and patient, the data might be of more value, if it is physician-specific.

In very large clinics, where physician-specific data collection is unmanageable, perhaps data specific to physician specialty or department would suffice.

This refinement would render the identified market opportunities more specific. For instance, if excessive waiting time was identified as the primary patient complaint (for the entire group), controlling the data for the specific physician would help identify physicians for which reduction of waiting time is an opportunity to increase levels of patient satisfaction with care. In this manner, the amount of additional research needed to clarify the identified opportunities might be greatly reduced.

2. Grouping Patients by Actual Diagnostic Category Rather Than by Their Self-Perceived Diagnostic Category

The demographic profile portion of the patient questionnaire elicited patient responses relevant to their reason for visiting the clinic. Their self-perceived "illnesses" were categorized to facilitate investigation regarding whether or not there were significant differences in the levels of patient satisfaction according to diagnostic category.

The accumulated data would be of more value if the patient's actual diagnostic category (as defined by the

physician) was used for the comparison. The patient's ability to name their condition/reason for the clinic visit was questionable as shown by the vagueness and wide variance of the responses. Their responses were categorized, to facilitate data analysis, but were collapsed so extensively that the resulting information is limited in its usefulness in identifying market opportunities. A mechanism of coding patient questionnaires with their actual diagnostic category (without sacrificing patient anonymity during data collection) would be ideal. Again, this methodological adjustment could possibly yield more accurate data.

3. Revisions of Instrumentation

The instruments used to collect both patient and provider data did result in a massive data base, but refinement of those instruments (especially the open-ended questions) could result in a reduction of the wide variance of responses to some questions, thus facilitating data analysis. The addition of open-ended questions that more adequately address some of the concerns stated by both patients and providers might be advantageous and could possibly reduce the amount of further research efforts needed to clarify market opportunities.

4. Summary of Revisions

If the preceding methodological refinements were made, the marketing opportunities identified after application of the model should be more specific. Actual changes in the steps of the model are unnecessary.

B. SUMMARY OF THE STUDY

A primary purpose of the study was to develop an internal assessment system to identify market opportunities within medical group practices. Major problems addressed by the study were:

1. What theoretical model best represented the steps needed to achieve the stated purpose of the study?
2. How could those theoretical steps best be applied in a medical group practice setting?
3. Could application of the model result in identification of market opportunities?
4. What revisions of that model were suggested by the application of the model?

The lack of literature specific to the goals of the study indicated the need to review both directly and indirectly related literature from multiple disciplines. The extensive literature review provided the basis for the development of a theoretical model that included the steps needed to identify market opportunities within medical group

practices. The literature review also supplied the information needed to specify the methodological steps necessary to apply the theoretical model within a group practice setting.

Methodology included the identification of a medical group practice to act as a test population. A large multi-specialty medical group practice in the southern portion of the United States was chosen and administrative approval obtained. Data were collected within the group practice by questionnaire survey. A random sampling of patients and the entire provider population (physicians, nurses, and ancillary personnel) were surveyed. The patient questionnaire consisted of a patient satisfaction scale and demographic questions. Open-ended questions were included to elicit the patient's ideas for additional services within the clinic. The health care provider questionnaire included both demographic questions and items to determine employee's perceptions of patient satisfaction and clinic image. Open-ended questions were used to obtain employee responses about perceived strengths, weaknesses and needs of the organization.

External secondary data were collected from public sources and provided an overview of regional, state, and local demographic data and trends. Other health-related information specific to the study population was also gathered.

The data collection process resulted in an extensive analysis of both demographic and psychographic information. A comprehensive analysis of that data followed. Listing, visual inspection, simple enumeration, and appropriate statistical procedures were applied to reveal significant findings. The researcher provided additional input to the analytical process by giving the qualitative evaluation specified by the model. For the study, the qualitative evaluation was considered to include expert opinion, value judgment, or creative input.

Assessment of all information obtained during the application of the model plus the researcher's input led to the identification and listing of market opportunities as well as possible market opportunities. Possible opportunities were those opportunities that were not well-defined, but were implied. In other words, those that further research might clarify or confirm. The sheer volume of data and/or responses resulted in a cumbersome analysis for identification of specific opportunities. Categorization of opportunities was necessary for summary. Categories of market opportunities that were identified included (in order of significance):

1. Reduction of waiting time/improved time management
2. Increased/enhanced provider education
3. Physical plant or equipment improvements

4. Improvement in communication
5. Addition of specific specialists and services
6. Changes in personnel management
7. Promotional opportunities/increased promotional efforts

Since application of the model did lead to recognition of market opportunities, no revisions of the model steps were needed. Some refinements in methodology could, perhaps, render the output of the model (market opportunities) more specific.

C. CONCLUSIONS

Based on the findings of the study, the following conclusions were reached:

1. The theoretical model described in Figure One (page 117 of this study) contains the most valid components necessary for internal identification of market opportunities within medical group practices.
2. The theoretical model can best be applied in a medical group practice setting by following the steps described in the methodological portion of Figure One (page 117 of this study).
3. Seven categories of market opportunities were identified as a result of the application of the model in a medical group practice setting.

4. No major revisions of the model were needed to achieve the stated purpose of the study, but specificity might be increased with methodological refinements.

D. RECOMMENDATIONS

The following recommendations were based on the conclusions of the study:

1. The model should be further tested by applying it in other medical group practice settings.
2. The model should be applied in medical group practices of varying sizes and specialty composition to assess whether or not size and composition would affect the model's usefulness.
3. Additional exploration is needed to determine the practicality and usefulness of adapting other traditional business concepts/models to medical group practice settings.
4. Further inquiry is necessary to determine how to best utilize the output of the model.
5. Additional study is needed to determine whether or not increased specificity of the model output is needed, and if so, how that might be accomplished.
6. To determine changes in market opportunities over time, market research must be an ongoing

process, rather than a single event.

7. The study indicated the need for a management information system that would yield the data necessary for periodic market opportunity identification.
8. As the health care environment continues to change rapidly, the need to adapt or change the model (or parts of it) should be assessed to maintain its usefulness.

CHAPTER VII

THE STUDY IN RETROSPECT

Marketing has been suggested as one of the answers to dilemmas facing the health care system. Providers' receptivity and motivation to change have been recently stimulated by declining patient volume, agressive competition, new alternatives of care, and need for cost containment.

Traditionally there has been little perceived need for "marketing" medical group practices; therefore, formal research in that area has been negligible. In contrast, the issue of providing a quality product at a reasonable price has been the ultimate challenge of most businesses. Marketing also has been a major concern of most businesses.

Since our health care system has begun to acquire more of the attributes of business/industry, the need to "transfer" and apply business concepts to the health care system has been apparent. This investigation attempted to develop a marketing model applicable to medical group practices that would identify market opportunities.

A. THE ROLE OF THE MODEL

Within the realm of the total marketing process, the application of the model would be appropriate <u>after</u> the need

for marketing was recognized, but before market opportunity analysis or marketing plan definition. Once specific market opportunities are analyzed and chosen for action, specific strategies could be developed.

The model was designed to identify opportunities for the group practice as a whole, by gathering and analyzing pertinent data, including external data that was readily available through public sources and internal data through survey of both patients and health care providers. For the purpose of the study, the researcher provided qualitative analytical input. That portion (qualitative analytical input) of the model could be provided by an organizational manager or managerial team when the model is utilized in the fashion described in the study. Perhaps that qualitative portion might be best achieved by using a "brain-storming" or "think-tank" approach. Managerial input for that step of the model should prove more valuable and/or effective than the input of the researcher because of management's more extensive knowledge of the organization (history, competitive forces, referral statistics, financial data, et cetera).

B. ACCEPTANCE OF DATA

Consumer data, specifically, measurement of patient satisfaction, is a major aspect of a market or consumer

orientation within the health care system; therefore, the measurement of patient satisfaction was included as a major step of the model. That measurement yielded a comprehensive view of patient satisfaction within the medical practice in its entirety, but was not physician-specific. Since patient satisfaction is largely dependent on the personal interaction with the physician, physician-specific data perhaps would be ideal for marketing purposes, but the usage of such data could prove problematic. In group practices with no/little history of market research or consumer-oriented strategies, the usage of physician specific data could be especially sensitive/threatening, bringing forth issues such as the need for physician behavioral changes, compliance to group decisions, acceptance of consumer complaints, and even disciplinary issues. From a management perspective, such issues could be potentially explosive, evoking a negative rather than a positive net marketing effect. For those reasons generalized data was a logical "first step". A rational next step would be education of providers about the need for a market orientation, followed by more specific data. Subsequently, collection and usage of more specific data might be accepted favorably. As noted in the literature, the organizational imapct of any research obviously should be considered prior to proceeding.

C. ORGANIZATIONAL IMPACT

Managerial personnel within medical group practices should realize that any market research should be implemented with caution. Problems and/or opportunities that were not evident previously may be revealed through research. In addition, the process of research may promote a heightened awareness of strengths, weaknesses, or needs within the organization.

Data generated through market studies could have broad implications within the organization; therefore, it would be beneficial to consider how the gleaned information will be handled, prior to actual research.

Ideally, positive information (that which is complimentary) should be communicated to organizational staff to provide reinforcement for work well done. Likewise, negative information should be communicated and problems resolved. If no organizational format exists to effectively resolve problems or explore opportunities, then perhaps that format should be developed prior to any generalized or specific market research. Otherwise, heightened awareness of problems could create unpredictable reactions within the organization.

Through anticipation of possible outcomes of market research, management could respond proactively rather than

in a reactive manner. Creative responses might include the coordination of employee bonuses/salary increases with patient satisfaction scores. Many other tools are available for managers to apply research findings in a manner that would facilitate organizational functioning.

D. CONSUMER SATISFACTION

Consumer satisfaction with medical care deserves further research, since the identity of the ultimate "consumer" can change. The consumer could be not only the patient, but industry, government, or other entities (by contractual arrangement). Even though the end product of medical care is received by the patient, other "consumers" such as corporations, are becoming increasingly important.

Few validated patient satisfaction questionnaires have been available. Of those, many do not include variables that are of new importance in the current medical marketplace. The instrument used in this investigation, the Ware Patient Satisfaction Survey, was initially researched over ten years ago and probably needs revision.

Tools to measure consumer satisfaction within medical care provision are in infantile stages of development and must be further researched, developed, and tested to keep abreast of the rapidly changing medical environment. In

addition, there are probably few validated tools to measure the level of satisfaction of health care consumers other than patients.

E. PARTICIPANT RESPONSE

Throughout the investigational process, much participant interest was observed. Health care providers (particularly nurses and ancillary personnel) were overwhelmingly responsive to the survey. The great number of written responses to the open-ended survey questions was especially interesting. The magnitude of those responses seemed to suggest the need for employee catharsis. The assured anonymity probably encouraged response, because of the perceived "safety" of reply. Many perceived problems (and some compliments) were documented as a result of the survey, yet a determination of the actual importance or magnitude by further study was certainly implied.

Again, the study yielded generalized data, a "starting point" to define areas of opportunity. Further investigation, perhaps using focus groups or a specific, more targeted anonymous survey, would serve to further clarify or prioritize opportunities that were found.

The poor response rate of physicians implied the need to find a more successful means of obtaining their input and might also have implied the need to educate/inform or

heighten the awareness of physicians (regarding marketing concepts) prior to such a survey. Their level of participation might have indicated a lack of a true consumer orientation within the group practice. This would be of significance to any future market research or marketing efforts within that provider setting. A market orientation should be apparent from the upper echelon of the organizational strata to the lowest levels of the organization for change to occur (toward a market orientation). Thus, the acceptance and participation of physicians is crucially relevant to marketing research or other marketing efforts.

F. THE NEED FOR MANAGEMENT INFORMATION SYSTEMS

The study indicated a need for ongoing data collection within medical group practices to identify market opportunities and trends affecting the organization.

The discipline involved in collecting and organizing market research data in a meaningful way (such as the completion of model steps) can help discover opportunities that might not have been recognized or at least their significance might not have been understood. Baseline data and ongoing data collection is needed to identify new opportunities and trends.

G. THE SUCCESS AND CHALLENGE REPRESENTED BY THE STUDY

This investigation showed the potential for using marketing (or business) concepts/models within medical group practices. Also, the study showed that such models can be designed to be "user-friendly", in other words, practical and implementable enough for ongoing use. The model might be used as a guide for developing a management information system within provider settings to facilitate identification of market opportunities.

The challenges that face health care providers will not be met easily. The need for enlightened responsive health care providers and managers of care is obvious. With research, education, and action, surely we can work to develop systems of care that efficiently and cost-effectively meet the needs of both providers and recipients of care.

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Unlisted References. For unlisted references, please forward a request to the researcher at the following address: M. B. Hogan, 2694B McInnis Loop, Hattiesburg, Mississippi 39401. The request will be reviewed by the health care provider (that acted as the study population). The information will then be forwarded, if the request is approved. In this way, anonymity of the provider can best be maintained.

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APPENDICES

APPENDIX A

THE PATIENT SATISFACTION QUESTIONNAIRE (THE WARE PATIENT SATISFACTION QUESTIONNAIRE, AND COVER LETTER TO PATIENTS), PRELIMINARY VERSION

To Our Patients:

Our clinic is interested in finding ways to improve services or increase your satisfaction with the services that we offer. Your opinions are important to us. Please answer the following questions to that we can plan to serve you better. We are interested in your honest opinions, but all responses will remain confidential and no attempt will be made to identify the persons who complete the questionnaire. Please answer the following questions in the area provided for your privacy and place the questionnaire in the box there. If you have any questions about this, please tell the receptionist and help will be provided.

THANK YOU FOR HELPING US IN THIS WAY!

_____

Executive Administrator

*Identifying information has been deleted at the provider's request.

ON THE FOLLOWING PAGES ARE SOME STATEMENTS ABOUT MEDICAL CARE. PLEASE READ EACH ONE CAREFULLY, KEEPING IN MIND THE MEDICAL CARE YOU ARE RECEIVING NOW.

IF YOU HAVE NOT RECEIVED MEDICAL CARE RECENTLY, THINK ABOUT WHAT YOU WOULD EXPECT IF YOU NEEDED CARE TODAY. ON THE LINE NEXT TO EACH STATEMENT CIRCLE THE NUMBER FOR THE OPINION WHICH IS CLOSEST TO YOUR OWN VIEW.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Ambulance service is too expensive	1	2	3	4	(5)

IN THE EXAMPLE ABOVE, THE CIRCLE AROUND THE NUMBER 5 SHOWS THAT THE PERSON "STRONGLY DISAGREES" WITH THE STATEMENT THAT "AMBULANCE SERVICE IS TOO EXPENSIVE." IF YOU AGREE THAT "AMBULANCE SERVICE IS TOO EXPENSIVE," YOU WOULD CIRCLE NUMBER 2 UNDER "AGREE" OR NUMBER 1 UNDER "STRONGLY AGREE."

SOME STATEMENTS LOOK SIMILAR TO OTHERS, BUT EACH STATEMENT IS DIFFERENT. YOU SHOULD CONSIDER EACH STATEMENT BY ITSELF.

THIS IS NOT A TEST OF WHAT YOU KNOW. THERE ARE NO RIGHT OR WRONG ANSWERS. WE ARE ONLY INTERESTED IN YOUR OPINIONS OR BEST IMPRESSION.

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH STATEMENT.

MEDICAL CARE

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1. I'm very satisfied with the medical care I receive	1	2	3	4	5
2. Parking is a problem when you have to get medical care	1	2	3	4	5
3. Doctors aren't as thorough as they should be	1	2	3	4	5
4. If I have a medical question, I can reach someone for help without any problem	1	2	3	4	5
5. The fees doctors charge are too high	1	2	3	4	5
6. Without proof that you can pay, it's almost impossible to get admitted to the hospital	1	2	3	4	5
7. Doctors always do their best to keep the patient from worrying	1	2	3	4	5
8. In an emergency, it's very hard to get medical care quickly	1	2	3	4	5
9. Most people are encouraged to get a yearly exam when they go for medical care	1	2	3	4	5
10. More hospitals are needed in this area	1	2	3	4	5
11. The care I have received from doctors in the last few years is just about perfect	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
12.	Sometimes doctors take unnecessary risks in treating their patients	1	2	3	4	5
13.	The amount charged for medical care services is reasonable	1	2	3	4	5
14.	Doctors are very careful to check everything when examining their patients	1	2	3	4	5
15.	Doctors always treat their patients with respect	1	2	3	4	5
16.	There are enough family doctors around here	1	2	3	4	5
17.	I think my doctor's office has everything needed to provide complete medical care	1	2	3	4	5
18.	It's hard to get an appointment for medical care right away	1	2	3	4	5
19.	Medical insurance coverage should pay for more expenses than it does	1	2	3	4	5
20.	It takes me a long time to get to the place where I receive medical care	1	2	3	4	5
21.	I hardly ever see the same doctor when I go for medical care	1	2	3	4	5
22.	Sometimes doctors make the patient feel foolish	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
23.	Doctors always avoid unnecessary patient expenses	1	2	3	4	5
24.	Places where you can get medical care are very conveniently located	1	2	3	4	5
25.	Doctors cause people to worry a lot because they don't explain medical problems to patients	1	2	3	4	5
26.	Most people receive medical care that could be better	1	2	3	4	5
27.	Doctors ask what foods patients eat and explain why certain foods are best	1	2	3	4	5
28.	My doctor's office lacks some things needed to provide complete medical care	1	2	3	4	5
29.	The medical problems I've had in the past are ignored when I seek care for new medical problems	1	2	3	4	5
30.	Doctors respect their patients' feelings	1	2	3	4	5
31.	If more than one family member needs medical care, we have to go to different doctors	1	2	3	4	5
32.	Office hours when you can get medical care are good for most people	1	2	3	4	5
33.	There are enough doctors in this area who specialize	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
34.	I think you can get medical care easily even if you don't have money with you	1	2	3	4	5
35.	Doctors never recommend surgery (an operation) unless there is no other way to solve the problem	1	2	3	4	5
36.	Doctors don't advise patients about ways to avoid illness or injury	1	2	3	4	5
37.	There are things about the medical care I receive that could be better	1	2	3	4	5
38.	There are enough hospitals in this area	1	2	3	4	5
39.	Doctors hardly ever explain the patient's medical problems to him	1	2	3	4	5
40.	I am happy with the coverage provided by medical insurance plans	1	2	3	4	5
41.	People are usually kept waiting a long time when they are at the doctor's office	1	2	3	4	5
42.	There is a big shortage of family doctors around here	1	2	3	4	5
43.	I see the same doctor just about every time I go for medical care	1	2	3	4	5

APPENDIX B

CORRESPONDENCE RELEVANT TO PERMISSION TO USE THE WARE PATIENT SATISFACTION QUESTIONNAIRE

Beth Hogan
1611 Laurel Avenue #613
Knoxville, TN 37916

October 24, 1984

John Ware, Ph.D.
The Rand Corporation
1700 Main Street
Santa Monica, CA 90406

Dear Dr. Ware:

I am a doctoral student engaged in research that may include a measure of patient satisfaction. I recently read a journal article in which William T. Merkel referenced the Ware Patient Satisfaction Questionnaire (the short form). It seemed that it might be useful in my research. I would like permission to use that form, if necessary, and a copy if available, or at least please refer me to specific publications which reproduce the entire instrument. I would appreciate the help!

Sincerely,

Beth Hogan

Beth Hogan
Doctoral Candidate
University of Tennessee
at Knoxville

BH/jb

Rand
SANTA MONICA, CA

November 1, 1984

Beth Hogan
1611 Laurel Avenue, #613
Knoxville, TN 37916

Dear Ms. Hogan:

In reply to your October 24, 1984 letter, we are happy to enclose the following:

"Defining and Measuring Patient Satisfaction with Medical Care"
"Behavioral Consequences of Consumer Dissatisfaction with..."
"The Measurement and Meaning of Patient Satisfaction"
"Patient Satisfaction and Change in Medical Care Provider..."
Questionnaire

We hope these enclosures will be useful to you.

Regarding the William T. Merkel reference, could you please send us the complete reference? Would be most grateful.

Sincerely,

John E. Ware, Jr., Ph.D.

JW:jf

Enclosures as noted.

APPENDIX C

CONSTRUCTION OF THE PATIENT DEMOGRAPHIC PROFILE; PRELIMINARY VERSION OF THE PATIENT DEMOGRAPHIC PROFILE; AND FINAL VERSIONS OF THE ENTIRE PATIENT QUESTIONNAIRE

CONSTRUCTION OF THE PATIENT DEMOGRAPHIC PROFILE

The review of related literature revealed that certain demographic characteristics are pertinent to the study of the patient population for marketing purposes. Geographic Location of the Patient's Home, Age, Sex, Spouse/Dependent Information, Insurance Coverage, Referral Soruce, and Utilization Information are elements that are needed to facilitate market decisions (Hill, 1983; MacStravic, 1977a). Other characteristics of the patient population that were found to be relevant to market decisions were: Race, Educational Level, and Economic Status (Michman, 1983, chap. 8; Stanton, 1982, chap. 4; Rosenberg, 1977, chap. 7). A multiple choice format, similar to that used by Schoenfeldt and Seale (1982) was used to elicit the needed information. Revision of some of the questions appearing in Schoenfeldt and Seale's Patient Questionnaire were used. Two open-ended questions were used to obtain specific information relevant to patient perception of the need for specific offerings by the clinic. It has been noted that open-ended questions may elicit less restricted responses and may provide more insight into the behavior/attitudes of specific groups than fixed-response items (Black & Champion, 1976, chap. 11).

PRELIMINARY PATIENT DEMOGRAPHIC PROFILE

Instructions: Please respond to the following questions by a check mark or an X in the space that best describes you.

1. Age:

   ( ) Under 18 years

   ( ) 18 to 25 years

   ( ) 26 to 35 years

   ( ) 36 to 45 years

   ( ) 46 to 55 years

   ( ) 56 to 65 years

   ( ) over 65 years

2. Sex:

   ( ) Male

   ( ) Female

3. Race:

   ( ) White

   ( ) Black

   ( ) Hispanic

   ( ) Oriental (Asian)

   ( ) Other (Please specify) _____

4. Employment Status:

   ( ) Employed

   ( ) Unemployed

5. Total Annual Household Income:

( ) Below $10,000
( ) $10,000 to $20,000
( ) $21,000 to $30,000
( ) $31,000 to $40,000
( ) $41,000 to $50,000

6. Marital Status:

( ) Single (Never Married)
( ) Married
( ) Divorced
( ) WIdowed

7. Number of People Living in Your Home:

( ) 1
( ) 2
( ) 3
( ) 4
( ) 5 or more

8. Number of Persons in Your Home Over the Age of 18:

( ) 0
( ) 1
( ) 2
( ) 3
( ) 4
( ) 5 or more

9. Number of Persons in Your Home Under the Age of 18:

( ) 0
( ) 1
( ) 2
( ) 3
( ) 4
( ) 5 or more

10. Number of Persons in Your Home Over the Age of 65:

( ) 0 ( ) 4

( ) 1 ( ) 5 or more

( ) 2

( ) 3

11. How Long Have You Been Using the Services of this Clinic?

( ) Less than one year

( ) 1 to 5 years

( ) 6 to 10 years

( ) Over 10 years

12. What Helped You First Decide to Use the Services of this Clinic?

( ) My doctor's referral

( ) Advice of a family member

( ) Advice of a friend

( ) Printed information about this clinic

( ) Other

If other, please describe _____

_____

13. What Type of Medical Insurance Coverage Do You Have?

( ) None

( ) Group insurance through an employer

( ) Medicaid

( ) Medicare

( ) Private policy

( ) Other

If other, please describe_____

_____

14. What Type of Illness/Health Problem Are You Having That Made This Trip to the Clinic Necessary?

_____

15. What Services/Procedures Do You Feel Taht the Clinic Needs to Offer That Are Not Now Offered?_____

_____

_____

16. Please List the Zip Code of Your Home:_____

If You Can Not Remember the Zip Code, Please List the Town Nearest Your Home:_____

TO OUR PATIENTS:

Our Clinic is interested in finding ways to improve services or increase your satisfaction with the services that we offer. Your opinions are important to us. Please answer the following questions so that we can plan to serve your better. We are interested in your honest opinions, but all responses will remain confidential and no attempt will be made to identify the persons who complete the questionnaire.

The results of this survey will be used to evaluate and improve services and to answer research questions about the development of a model for group practices to identify and respond to patient/clinic needs. This survey will also serve as a part of the research required for completion of a doctoral degree by the researcher named below.

Return of the completed questionnaire by the patient will mean that the patient understands the purposes of the survey and that all responses will remain confidential.

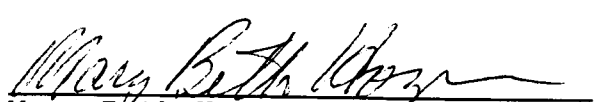
Please answer the following quetions in the area provided for your privacy and place the questionnaire in the box there.

If you have any questions about this, please tell the receptionist and help will be provided.

Further information can be obtained from the researcher listed below.

THANK YOU FOR HELPING US IN THIS WAY!

_____
Administrator



Mary Beth Hogan, Researcher
(Doctoral Student, University
of Tennessee at Knoxville)

Local Address:

Local Phone:

*Identifying information has been deleted at the provider's request.

ON THE FOLLOWING PAGES ARE SOME STATEMENTS ABOUT MEDICAL CARE. PLEASE READ EACH ONE CAREFULLY, KEEPING IN MIND THE MEDICAL CARE YOU ARE RECEIVING NOW.

IF YOU HAVE NOT RECEIVED MEDICAL CARE RECENTLY, THINK ABOUT WHAT YOU WOULD EXPECT IF YOU NEEDED CARE TODAY. ON THE LINE NEXT TO EACH STATEMENT CIRCLE THE NUMBER FOR THE OPINION WHICH IS CLOSEST TO YOUR OWN VIEW.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Ambulance service is too expensive	1	2	3	4	(5)

IN THE EXAMPLE ABOVE, THE CIRCLE AROUND THE NUMBER 5 SHOWS THAT THE PERSON "STRONGLY DISAGREES" WITH THE STATEMENT THAT "AMBULANCE SERVICE IS TOO EXPENSIVE." IF YOU AGREE THAT "AMBULANCE SERVICE IS TOO EXPENSIVE," YOU WOULD CIRCLE NUMBER 2 UNDER "AGREE" OR NUMBER 1 UNDER "STRONGLY AGREE."

SOME STATEMENTS LOOK SIMILAR TO OTHERS, BUT EACH STATEMENT IS DIFFERENT. YOU SHOULD CONSIDER EACH STATEMENT BY ITSELF.

THIS IS NOT A TEST OF WHAT YOU KNOW. THERE ARE NO RIGHT OR WRONG ANSWERS. WE ARE ONLY INTERESTED IN YOUR OPINIONS OR BEST IMPRESSION.

PLEASE CIRCLE ONLY ONE NUMBER FOR EACH STATEMENT.

MEDICAL CARE

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
1. I'm very satisfied with the medical care I receive	1	2	3	4	5
2. Parking is a problem when you have to get medical care	1	2	3	4	5
3. Doctors aren't as thorough as they should be	1	2	3	4	5
4. If I have a medical question, I can reach someone for help without any problem	1	2	3	4	5
5. The fees doctors charge are too high	1	2	3	4	5
6. Without proof that you can pay, it's almost impossible to get admitted to the hospital	1	2	3	4	5
7. Doctors always do their best to keep the patient from worrying	1	2	3	4	5
8. In an emergency, it's very hard to get medical care quickly	1	2	3	4	5
9. Most people are encouraged to get a yearly exam when they go for medical care	1	2	3	4	5
10. More hospitals are needed in this area	1	2	3	4	5
11. The care I have received from doctors in the last few years is just about perfect	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
12.	Sometimes doctors take unnecessary risks in treating their patients	1	2	3	4	5
13.	The amount charged for medical care services is reasonable	1	2	3	4	5
14.	Doctors are very careful to check everything when examining their patients	1	2	3	4	5
15.	Doctors always treat their patients with respect	1	2	3	4	5
16.	There are enough family doctors around here	1	2	3	4	5
17.	I think my doctor's office has everything needed to provide complete medical care	1	2	3	4	5
18.	It's hard to get an appointment for medical care right away	1	2	3	4	5
19.	Medical insurance coverage should pay for more expenses than it does	1	2	3	4	5
20.	It takes me a long time to get to the place where I receive medical care	1	2	3	4	5
21.	I hardly ever see the same doctor when I go for medical care	1	2	3	4	5
22.	Sometimes doctors make the patient feel foolish	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
23.	Doctors always avoid unnecessary patient expenses	1	2	3	4	5
24.	Places where you can get medical care are very conveniently located	1	2	3	4	5
25.	Doctors cause people to worry a lot because they don't explain medical problems to patients	1	2	3	4	5
26.	Most people receive medical care that could be better	1	2	3	4	5
27.	Doctors ask what foods patients eat and explain why certain foods are best	1	2	3	4	5
28.	My doctor's office lacks some things needed to provide complete medical care	1	2	3	4	5
29.	The medical problems I've had in the past are ignored when I seek care for new medical problems	1	2	3	4	5
30.	Doctors respect their patients' feelings	1	2	3	4	5
31.	If more than one family member needs medical care, we have to go to different doctors	1	2	3	4	5
32.	Office hours when you can get medical care are good for most people	1	2	3	4	5
33.	There are enough doctors in this area who specialize	1	2	3	4	5

		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
34.	I think you can get medical care easily even if you don't have money with you	1	2	3	4	5
35.	Doctors never recommend surgery (an operation) unless there is no other way to solve the problem	1	2	3	4	5
36.	Doctors don't advise patients about ways to avoid illness or injury	1	2	3	4	5
37.	There are things about the medical care I receive that could be better	1	2	3	4	5
38.	There are enough hospitals in this area	1	2	3	4	5
39.	Doctors hardly ever explain the patient's medical problems to him	1	2	3	4	5
40.	I am happy with the coverage provided by medical insurance plans	1	2	3	4	5
41.	People are usually kept waiting a long time when they are at the doctor's office	1	2	3	4	5
42.	There is a big shortage of family doctors around here	1	2	3	4	5
43.	I see the same doctor just about every time I go for medical care	1	2	3	4	5

Patient Demographic Profile

Instructions: Please resond to the following questions by placing an X in the space that best describes you. All responses will remain confidential.

1. Age:
   ( ) Under 25 years
   ( ) 25 to 35 years
   ( ) 36 to 45 years
   ( ) 46 to 64 years
   ( ) 65 years or over

2. Sex:
   ( ) Male
   ( ) Female

3. Race:
   ( ) White
   ( ) Black
   ( ) Hispanic
   ( ) Oriental (Asian)
   ( ) Other (Please specify) _____

4. Employment status:
   ( ) Employed
   ( ) Unemployed

5. Your annual household income:
   ( ) Below $10,000 a year
   ( ) $10,000 to $20,000 a year
   ( ) $21,000 to $35,000 a year
   ( ) $36,00 to $50,000 a year
   ( ) Over $50,000 a year

6. Marital status:
   ( ) Single (Never Married)
   ( ) Married
   ( ) Divorced
   ( ) Widowed
   ( ) Other

7. Number of people presently living in your home (including yourself):
   ( ) 1 ( ) 4
   ( ) 2 ( ) 5 or more
   ( ) 3

8. Number of persons in your home over the age of 18 years (including yourself):
   ( ) 0 ( ) 3
   ( ) 1 ( ) 4 or more
   ( ) 2

9. Number of persons in your home under the age of 18 years (including yourself):
   ( ) 0 ( ) 3
   ( ) 1 ( ) 4 or more
   ( ) 2

10. Number of persons in your home over the age of 65 years (including yourself):
   ( ) 0 ( ) 3
   ( ) 1 ( ) 4 or more
   ( ) 2

11. How long have you been using the services of this clinic?
   ( ) Less than one year
   ( ) 1 to 5 years
   ( ) 6 to 10 years
   ( ) Over 10 years

12. What helped you first decide to use the services of this clinic?
   ( ) My doctor's referral
   ( ) Advice of a family member
   ( ) Advice of a friend
   ( ) Printed information about this clinic
   ( ) Other

   If other, please describe: _____

   _____

13. What type of medical insurance do you have?
    ( ) None
    ( ) Group insurance through an employer
    ( ) Medicaid
    ( ) Medicare
    ( ) Private policy
    ( ) Other

    If other, please describe: _____

    _____

14. What type of illness/health problem are you having that made this trip to the clinic necessary?

    _____

    _____

15. What services/procedures do you feel the clinic needs to offer that are not now offered?

    _____

    _____

    _____

    _____

16. Please list the Zip Code of your home: _____

    If you can not remember the Zip Code, please list the town nearest you

    _____

THANK YOU VERY MUCH FOR HELPING US BY ANSWERING THIS QUESTIONNAIRE!

IF YOU WOULD LIKE TO MAKE ADDITIONAL COMMENTS, PLEASE FEEL FREE TO WRITE ON THE REVERSE SIDES OF THESE PAGES.

APPENDIX D

THE HEALTH CARE PROVIDER QUESTIONNAIRE: PRELIMINARY AND FINAL VERSIONS

The administration of the clinic is interested in determining ways that we might improve services or other aspects of the clinic. Based on your experience with patients and the clinic system, we feel that your opinion is valuable. The following questionnaire will give us insight into measures that will improve aspects of the clinic. We are not basically interested in individual responses, but the responses of the group as a whole, therefore all responses will remain anonymous and no attempt will be made at any time to identify the participants of this study. Because we feel that the information gained by this study would be of interest to you, the results will be made available to you through the administrative assistants in your area. Please complete the form and deposit it in the box provided by your administrative assistant.

Thank You For Helping Us In This Way!

_____

Executive Administrator

*Identifying information has been deleted at the provider's request.

The Health Care Provider Questionnaire

Instructions: Please respond to the following questions by placing an X in the space that best describes you:

1. Your position:
   ( ) Physician
   ( ) Nurse
   ( ) Other
   If other, please specify: _____

2. Your primary professional area:
   ( ) Orthopedics
   ( ) Family Practice
   ( ) Neurology
   ( ) Internal Medicine
   ( ) Obstetrics/Gynecology
   ( ) Surgery
   ( ) ENT
   ( ) Administration
   ( ) Housekeeping/Maintenance
   ( ) Business Office/Related Services
   ( ) Physical Therapy
   ( ) Laboratory
   ( ) Other, Please Describe: _____

3. How long have you been affiliated/worked for the clinic?
   ( ) Less than one year
   ( ) At least 1, but less than 5 years
   ( ) Over 5 years, but less than 10
   ( ) Over 10 years, but less than 15
   ( ) 15 years or more

4. Within which age bracket do you fall?

( ) Under 25 years

( ) 25 to 35 years

( ) 36 to 45 years

( ) 46 to 64 years

( ) 65 years or over

5. Sex:

( ) Male ( ) Female

6. Race:

( ) White

( ) Black

( ) Hispanic

( ) Oriental (Asian)

( ) Other

If other, please specify:_____

7. For the following specific clinical areas, please rate the clinic as a whole by placing an X in the appropriate set of parentheses:

	Excellent	Above Average	Average	Below Average	Poor
Business Office	( )	( )	( )	( )	( )
Administration	( )	( )	( )	( )	( )
Parking	( )	( )	( )	( )	( )
Building Maintenance	( )	( )	( )	( )	( )
Housekeeping	( )	( )	( )	( )	( )
Availability of Equipment and Supplies	( )	( )	( )	( )	( )
Laboratory Services	( )	( )	( )	( )	( )
X-Ray Services	( )	( )	( )	( )	( )
Medical Records Service	( )	( )	( )	( )	( )
Physical Therapy Service	( )	( )	( )	( )	( )
Patient Information/Patient Education	( )	( )	( )	( )	( )
Health/Wellness Promotion	( )	( )	( )	( )	( )
Promotion of the Clinic to the Public	( )	( )	( )	( )	( )
Community Service	( )	( )	( )	( )	( )
Nursing Competence	( )	( )	( )	( )	( )
Nursing Attitude	( )	( )	( )	( )	( )
Doctor's Competence	( )	( )	( )	( )	( )
Doctor's Attitude	( )	( )	( )	( )	( )
Telephone Communication/ Etiquette	( )	( )	( )	( )	( )
Interpersonal Communication/ Etiquette	( )	( )	( )	( )	( )
Financial Compensation (salary)	( )	( )	( )	( )	( )

8. Based on your experience here with patients and employees, are there any additional services/procedures that are not offered now, but should be considered?

( ) Yes ( ) No

If yes, please explain:_____

_____

_____

_____

_____

9. To what extent do you have input in clinic decisions?

( ) To a very great extent

( ) To a great extent

( ) To some extent

( ) To a little extent

( ) To no extent

10. Do you feel you should have more input into clinic decisions?

( ) Yes ( ) No ( ) Undecided

11. The greatest strengths of this clinic are:_____

_____

_____

_____

12. The greatest weaknesses of this clinic are:_____

_____

_____

_____

13. If you were responsible for managing this clinic, what would you do differently? _____

_____

_____

_____

_____

14. Directions: Please rate the clinic or its personnel according to each scale of adjectives that appear in the next section of this questionnaire. Place an X in the set of parentheses that best represents your opinion. For example, for the scale of adjectives adaptable-inflexible, place your X on the extreme left side of the scale if you feel that the clinic is extremely adaptable. If only very adaptable, then the X would be placed on the left side. If the clinic is very inflexible in your opinion, you would place your check on the right side.

Friendly	(1)	(2)	(3)	(4)	(5)	(6)	Unfriendly
Attractive	(1)	(2)	(3)	(4)	(5)	(6)	Unattractive
Professional	(1)	(2)	(3)	(4)	(5)	(6)	Unprofessional
Quiet	(1)	(2)	(3)	(4)	(5)	(6)	Noisy
Clean	(1)	(2)	(3)	(4)	(5)	(6)	Dirty
Caring	(1)	(2)	(3)	(4)	(5)	(6)	Indifferent
Comfortable	(1)	(2)	(3)	(4)	(5)	(6)	Uncomfortable
Organized	(1)	(2)	(3)	(4)	(5)	(6)	Unorganized
Charitable	(1)	(2)	(3)	(4)	(5)	(6)	Uncharitable
Democratic	(1)	(2)	(3)	(4)	(5)	(6)	Authoritarian
Efficient	(1)	(2)	(3)	(4)	(5)	(6)	Inefficient
Ethical	(1)	(2)	(3)	(4)	(5)	(6)	Unethical
Biased	(1)	(2)	(3)	(4)	(5)	(6)	Unbiased

Flexible	(1)	(2)	(3)	(4)	(5)	(6)	Inflexible
Disciplined	(1)	(2)	(3)	(4)	(5)	(6)	Undisciplined
Structured	(1)	(2)	(3)	(4)	(5)	(6)	Unstructured

15. Thinking about the patients' perceptions of this clinic, please respond to the following statements by placing an X in the set of parentheses that best represents your opinion.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
If our patients have a medical question, someone can be reached for help without any problem.	( )	( )	( )	( )	( )
There are enough family doctors in this clinic.	( )	( )	( )	( )	( )
Patients at this clinic hardly ever see the same doctor when they come for medical care.	( )	( )	( )	( )	( )
The fees that our doctors charge are too high.	( )	( )	( )	( )	( )
Our doctors always do their best to keep the patients from worrying.	( )	( )	( )	( )	( )
Our doctors always avoid unnecessary patient expenses.	( )	( )	( )	( )	( )
Doctors hardly ever explain medical problems to the patient.	( )	( )	( )	( )	( )
Our doctors don't advise patients about ways to avoid illness or injury.	( )	( )	( )	( )	( )
Patients can get medical care easily even if they don't have money with them.	( )	( )	( )	( )	( )

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Our patients are very satisfied with the medical care they receive.	( )	( )	( )	( )	( )
There are things about the medical care that our patients receive that could be better.	( )	( )	( )	( )	( )
There are enough specialists in this clinic.	( )	( )	( )	( )	( )
It is hard for our patients to get an appointment for medical care right away.	( )	( )	( )	( )	( )
The location of this clinic is convenient to the patients.	( )	( )	( )	( )	( )
The office hours of the clinic are good for most patients.	( )	( )	( )	( )	( )
It takes a long time for most of our patients to get to the clinic.	( )	( )	( )	( )	( )
Patients are usually kept waiting a long time at this clinic.	( )	( )	( )	( )	( )

16. What do you think might increase the level of patient satisfaction at this clinic?_____

_____

_____

_____

THANK YOU VERY MUCH FOR HELPING US BY ANSWERING THIS QUESTIONNAIRE!

The administration of the clinic is interested in determining ways that we might improve services or other aspects of the clinic. Based on your experience with patients and the clinic system, we feel that your opinion is valuable. The following questionnaire will give us insight into measures that will improve aspects of the clinic. We are interested in your honest opinions, but all responses will remain confidential and no attempt will be made at any time to identify the participants of the study.

The results of this survey will be used to evaluate and improve services, and to answer research questions about developing a model for group practices to identify and respond to patient/clinic needs. This survey will serve as a portion of the research required for the completion of a doctoral degree by the researcher named below.

Your return of the completed questionnaire will constitute that you understand the purposes of the survey and that all responses will remain confidential.

Because we feel that the information gained by the study would be of interest to you, a summary of the results will be made available to you through the administrative assistant in your particular area.

Further information can be obtained through the researcher listed below, if you have questions.

Please complete the form and deposit it in the box provided by your administrative assistant.

THANK YOU FOR HELPING US IN THIS WAY!

_____
Executive Administrator

Mary Beth Hogan

Mary Beth Hogan, Researcher
(Doctoral Student, University of Tennessee at Knoxville)
Local Address:

Local Phone:

*Identifying information has been deleted at the provider's request.

The Health Care Provider Questionnaire

Instructions: Please respond to the following questions by placing an X in the space that best describes you. All responses will remain confidential.

1. Your Position:
   ( ) Physician
   ( ) Nurse
   ( ) Other
   If other, please specify: _____

2. Your primary department:
   ( ) Orthopedics/Rheumatology/Neurology/Family Practice
   ( ) Obstetrics/Gynecology
   ( ) Surgery/Nephrology
   ( ) Internal Medicine/Pulmonary/Cardiology
   ( ) Administration/Business Office/Related Services
   ( ) Housekeeping/Maintenance
   ( ) Physical Therapy/Laboratory/Audiology
   ( ) Other, please describe: _____

3. How long have you been affiliated/worked for the clinic?
   ( ) Less than one year
   ( ) At least 1, but less than 5 years
   ( ) Over 5 years, but less than 10
   ( ) Over ten years, but less than 15
   ( ) 15 years or more

4. Within which age bracket do you fall?
   ( ) Under 25 years
   ( ) 25 to 35 years
   ( ) 36 to 45 years
   ( ) 46 to 64 years
   ( ) 65 years or over

5. Sex:

   ( ) Male ( ) Female

6. Race:

( ) White
( ) Black
( ) Hispanic
( ) Oriental (Asian)
( ) Other
If other, please specify: _____

7. For the following areas, please rate the clinic as a whole by placing an X in the appropriate box:

	Excellent	Above Average	Average	Below Average	Poor
Business Office					
Administration					
Parking					
Building Maintenance					
Housekeeping					
Availability of Equipment and Supplies					
Laboratory Services					
X-Ray Services					
Medical Records Service					
Physical Therapy Service					
Patient Information/Patient Education					
Health/Wellness Promotion					
Promotion of the Clinic to the Public					
Community Service					
Nursing Competence					
Nursing Attitude Toward Patients					
Nursing Attitude Toward Clinic Personnel					
Doctor's Competence					
Doctor's Attitude Toward Clinic Personnel					
Doctor's Attitude Toward Patients					
Telephone Communication/ Etiquette					

7. Con't. For the following areas, please rate the clinic as a whole by placing an X in the appropriate box:

	Excellent	Above Average	Average	Below Average	Poor
Interpersonal Communication Between Personnel					
Interpersonal Communication Between Personnel and Patients					
Financial Compensation (salary)					
Fringe Benefits (Vacation, Retirement Benefits, Time Off, Group Insurance, or Others					
Overall					

8. Based on your experience here with patients and employees; are there any additional services/procedures that are not offered now, but should be considered?

( ) Yes ( ) No

If yes, please explain: _____

_____

_____

_____

_____

_____

9. To what extent do you have input in clinic decisions?

( ) To a very great extent

( ) To a great extent

( ) To some extent

( ) To a little extent

( ) To no extent

10. Do you feel you should have more input into clinic decisions?

( ) Yes ( ) No ( ) Undecided

11. The greatest strengths of this clinic are: _____

12. The greatest weaknesses of this clinic are: _____

13. What do you feel should be done differently at this clinic? _____

14. Directions: Please rate the clinic according to each scale of adjectives that appear in the next section of this questionnaire. Circle the number that best represents your opinion. For example, for the scale of adjectives labelled "Friendly - unfriendly" you would circle a 1 if you think the clinic as a whole is very, very friendly. You would circle a 6 if you think the clinic is very, very unfriendly. If your opinion is somewhere in between, circle one of the other numbers that best represents your opinion.

Friendly	(1)	(2)	(3)	(4)	(5)	(6)	Unfriendly
Attractive	(1)	(2)	(3)	(4)	(5)	(6)	Unattractive
Professional	(1)	(2)	(3)	(4)	(5)	(6)	Unprofessional
Quiet	(1)	(2)	(3)	(4)	(5)	(6)	Noisy
Clean	(1)	(2)	(3)	(4)	(5)	(6)	Dirty
Caring	(1)	(2)	(3)	(4)	(5)	(6)	Indifferent
Comfortable	(1)	(2)	(3)	(4)	(5)	(6)	Uncomfortable
Organized	(1)	(2)	(3)	(4)	(5)	(6)	Unorganized
Charitable	(1)	(2)	(3)	(4)	(5)	(6)	Uncharitable
Democratic	(1)	(2)	(3)	(4)	(5)	(6)	Authoritarian
Efficient	(1)	(2)	(3)	(4)	(5)	(6)	Inefficient
Ethical	(1)	(2)	(3)	(4)	(5)	(6)	Unethical
Biased	(1)	(2)	(3)	(4)	(5)	(6)	Unbiased
Flexible	(1)	(2)	(3)	(4)	(5)	(6)	Inflexible
Disciplined	(1)	(2)	(3)	(4)	(5)	(6)	Undisciplined
Structured	(1)	(2)	(3)	(4)	(5)	(6)	Unstructured

15. Thinking about the patient's perceptions of this clinic, please respond to the following statements by placing an X in the box that best represents your opinion.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
If our patients have a medical question, someone can be reached for help without any problem.					
There are enough Family Physicians in this clinic.					
Patients at this clinic hardly ever see the same physician when they come for medical care.					
The fees that our physicians charge are too high.					
Our physicians always do their best to keep patients from worrying.					
Our physicians always avoid unnecessary expenses.					
Physicians hardly ever explain medical problems to the patient.					
Our physicians don't advise patients about ways to avoid illness or injury.					
Patients can get medical care easily even if they don't have money with them.					
Our patients are very satisfied with the medical care they receive.					
There are things about the medical care that our patients receive that could be better.					
There are enough specialists in this clinic.					
It is hard for our patients to get an appointment for medical care right away.					
The location of this clinic is convenient to the patients.					
The office hours of the clinic are good for most patients.					
It takes a long time for most of our patients to get to the clinic.					
Patients are usually kept waiting a long time at this clinic.					

16. What do you think might increase the level of patient satisfaction at this clinic?

_____

_____

_____

_____

_____

_____

_____

THANK YOU VERY MUCH FOR HELPING US BY ANSWERING THIS QUESTIONNAIRE!

IF YOU HAVE ADDITIONAL COMMENTS , PLEASE FEEL FREE TO USE THE REVERSE SIDES OF THESE PAGES.

APPENDIX E

CORRESPONDENCE RELEVANT TO THE REVISION/USE OF SCHOENFELDT AND SEALES' STAFF IMAGE QUESTIONNAIRE; COPY OF SCHOEFELDT AND SEALES' STAFF IMAGE QUESTIONNAIRE (LORDES STAFF SURVEY)

Roger C. Schoenfeldt
Murray State University
Murray, Kentucky 42071

Mary Beth Hogan
26948 McInnis Loop
Hattiesburg, Mississippi 39401

Dear Ms Hogan,

As per your request for permission to use/revise the Lourdes Staff Survey for the data collection of your dissertation, I would like to grant permission to utilize that instrument, or revise it for your particular needs.

Sincerely,

Roger C. Schoenfeldt

Roger C. Schoenfeldt

Lourdes Staff Survey

1. Department_____

2. Sex: Male ( ) Female ( )

3. Shift: Day ( ) Evening ( ) Night ( )

4. Within what age bracket do you fall?
   ( ) Under 25 ( ) 45 to 54
   ( ) 25 to 34 ( ) 55 to 64
   ( ) 35 to 44 ( ) 65 and over

5. How long have you worked at Lourdes?
   ( ) Less than 1 year ( ) 10 but less than 15 years
   ( ) 1 but less than 5 years ( ) 15 but less than 25 years
   ( ) 5 but less than 10 years ( ) 25 years or longer

6. Have you worked at any other hospitals? Yes___ No___
   If Yes:

Name of Hospital	Location	Number of Beds	Years of Service

7. How would you rate the following areas at Lourdes?

Patient Care:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Doctors:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Business Office:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Administration:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Parking:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Maintenance of Equipment:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Switchboard	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Building Maintenance:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Orderlies & Aides:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Cafeteria:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Housekeeping:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Emergency Room:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Personnel Department:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Professional Services (Lab, X-Ray, etc.):	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__
Admitting:	Excellent__	Above Avg__	Avg__	Below Avg__	Poor__

8. What changes do you see taking place in hospital care, services, or procedures?

9. Are there any new services or procedures which Lourdes does not now have but should be considering? Yes_____ No_____

   If yes, elaborate.

10. To what extent do you have input in hospital decisions?

    1. To a very great extent_____
    2. To a great extent_____
    3. To some extent_____
    4. To a little extent_____
    5. To a very little extent_____

11. Do you feel you should have more input into hospital decisions? Yes___ No___

    If yes, how and/or where?

12. Is there a need for additional effort in continuing education for the staff at Lourdes? Yes___ No___

    If yes, elaborate.

13. "Hospital costs are too high for the level of care provided."

Strongly Agree___ Agree___ Neutral___ Disagree___ Strongly Disagree___

14. Now thinking of Lourdes Hospital, for each of the following descriptive scales, check the box which you think best describes the hospital.

Friendly	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unfriendly
Pleasant	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unpleasant
Competent	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Incompetent
Attractive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unattractive
Reliable	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unreliable
Professional	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unprofessional
Progressive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unprogressive
Partial	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Impartial
Quiet	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Noisy
Concerned	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unconcerned
Clean	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Dirty
Receptive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unreceptive
Optimistic	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Pessimistic
Caring	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Indifferent
Effective	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Ineffective
Comfortable	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Uncomfortable
Organized	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Disorganized
Charitable	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Uncharitable
Democratic	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Authoritarian
Efficient	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Inefficient
Ethical	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unethical
Considerate	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Inconsiderate
Dedicated	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Indifferent
Biased	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unbiased

Decisive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Indecisive
Sensitive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Insensitive
Fair	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unfair
Flexible	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Inflexible
Disciplined	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Undisciplined
Demanding	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Undemanding
Responsive	( ) 1	( ) 2	( ) 3	( ) 4	( ) 5	( ) 6	Unresponsive

15. Have you ever been a patient at Lourdes? Yes___ No___

16. Has a member of your family ever been a patient at Lourdes? Yes___ No___

17. If you need to be admitted to an area hospital would you choose Lourdes?
( )Yes ( )No

If no, why?

18. If you were running this hospital, what would you change?

APPENDIX F

DATA COLLECTION SCHEDULE

Data Collection Schedule: Sample Number 300

	Mon.	Tues.	Wed.	Thur.	Fri.
Week One	Area 1,2,3,4,5 (A.M.)	All Areas (P.M.)	All Areas (A.M.)	All Areas (P.M.)	All Areas (A.M.)
Week Two	All Areas (P.M.)	All Areas (A.M.)	All Areas (P.M.)	All Areas (A.M.)	All Areas (P.M.)

At each collection time, 6 patients were sampled, yielding a total sample of 60 patients from each of the 5 reception areas.

APPENDIX G

CORRESPONDENCE USED TO FACILITATE QUESTIONNAIRE ADMINISTRATION

MEMORANDUM*

TO: All Physicians and Supervisors

FROM:

DATE: September 6, 1985

SUBJECT: Patient Survey

During the week of September 9-13, 1985, a survey of patients will be done within the Clinic as part of the research of Beth Hogan. It will involve a sample of approximately 400 patients, who will be asked to complete a survey form similar to that one completed by employees previously. Your cooperation with this process will certainly be appreciated.

_____
Administrator

*Identifying information has been deleted at the provider's request.

MEMORANDUM*

TO: All Physicians and Employees

FROM:

DATE: August 7, 1985

SUBJECT: In-House Survey

On Thursday and Friday (August 8th and 9th) of this week, a survey of all health care providers and ancillary personnel within the Clinic will be done by Beth Hogan through the administrative assistants of each area.

Your participation and cooperation will be appreciated.

_____
Administrator

*Identifying information has been deleted at the provider's request.

PATIENT SURVEY GUIDELINES

As a receptionist who is familiar with many of the patients, you have been chosen to help administer the patient survey. Basically, we will survey the first six return patients in the morning, and the first six return patients in the afternoon, for a total of twelve patients daily. The survey will be done each day, Monday through Friday of this week. No new patients will be included. Since we will sample 12 patients a day for five days, at the end of the week each reception area will have smapled 60 patients.

The patient questionnaire will take approximately 10 to 15 minutes to complete. A supply of questionnaires and a complimentary pencil bearing the clinic logo will be brought to you each morning of the survey. A table for privacy and a box for the completed survey forms will be set up in your area for the patients convenience.

The following considerations are important to the results of the survey:

1. I have found that most patients will be glad to complete the survey, however, if the questionnaire is refused, please make note of it, so that I will know how many times this occurred. All I am interested in is the number of refusals.

2. In the case of a patient that can not read/write, please offer the questionnaire, then offer help to the patient if it is desired. I will be available to help the patient. If this does happen, please page me through the clinic operator. Many patients who can not read will have someone with them who can help them with the questionnaire. It is important to use tact in this situation, so that the patient does not become uncomfortable.
3. If a question occurs that you can not answer, please call on me, as I will be available for that purpose.
4. The manner in which the patient is asked to complete the questionnaire is important to the outcome of the survey, therefore, please follow the following example (not necessarily word for word, but generally):

(When the patient arrives for the appointment)
Receptionist: "We would like for you to complete this questionnaire while you are waiting. A table is set up if you need more privacy. When you finish the questionnaire, just drop it in the box on the table. You may keep the pencil. Thank you."

The instructions to the patient are on the front pages of the questionnaire, therefore, any further explanation is not needed. If they inquire about the questionnaire when it is presented to them, just tell them that the front page will explain it further. You can add that if they have any questions after reading it that they should feel free to ask. Please make sure that they understand that they are to keep the pencil before they sit down to fill out the questionnaire.

I believe that most of the pertinent information has been included here, but do not hesitate to call me if you have questions or encounter unexpected problems.

Thank you!

Beth Keegan

Instructions for Administration of the

Health Care Provider Survey

1. Each supervisor will have enough questionnaire forms to distribute to each of the employees in his/her area.

2. Each physician and each employee will receive a questionnaire, and will be requested to complete the form and return it to the box provided by Friday, August 9, at 6 PM.

3. The physicians' nurses will be responsible for noting a good time to deliver the physician's questionnaire to him, so that he will be more likely to take the time to complete the form (if he is not pressured for time).

4. Ideally, when the supervisors distribute the forms, they should remind the employees that this is a good time to channel their ideas upward to administration, and that participation in this survey process could be to their advantage.

5. Throughout the survey time, the supervisors can facilitate the process by either reminding the employees to fill out the questionnaire, or asking them whether or not theirs has been completed.

6. Additional forms will be available through Dee Gatlin in the event that more are needed.

7. It is felt that very much useful information can be obtained in this way. I will provide a summary of results to the supervisors, since I feel that the employees will be interested in the findings.

I certainly do appreciate your help with this project!

Beth Hogan

VITA

Mary Beth Hogan was born August 9, 1951, in Union City, Tennessee. At one year of age, Beth and her family moved to Clarksdale, Mississippi. She attended Heidelberg Elementary School, Clarksdale Junior High School, and Clarksdale High School. In 1969, Beth obtained a G.E.D. high school equivalence diploma. She attended and graduated from The Clarksdale Public School Practice Nursing program in 1970.

After working as a licensed practical nurse for a year, Beth attended The University of Southern Mississippi from September 1971 until June 1973.

From August 1973 until September 1974 she attended Moorhead Junior College's Associate Degree in Nursing Program, a satellite program based in Clarksdale, Mississippi.

Beth was employed as a licensed practical nurse and attended Phillips County Community College in Helena, Arkansas, between the years of 1974 and 1979. During that time her residence was in the community of Moon Lake, Mississippi. From 1976 until 1978 she served as the Disaster Committee Chairman for the Clarksdale, Mississippi, Chapter of the American Red Cross.

From December 1979 until June 1981, she attended The

University of Southern Mississippi and graduated with a Bachelor of Science in Community Health Education. In August 1982, she graduated from the same university with a Master of Science in Community Health Education. While attending The University of Southern Mississippi, she held a graduate teaching assistantship, was employed as a licensed practical nurse, and was a President's List Scholar.

In September 1982, Beth entered the doctoral program at The University of Tennessee in Knoxville. While attending The University of Tennessee, she was a graduate teaching assistant and was employed as a licensed practical nurse. Beth was a representative to the Graduate Student Council and earned the Woman of Achievement Award for Outstanding Scholarship while attending The University of Tennessee. She was awarded the Doctor of Philosophy degree in June 1987.

Beth is currently Director of Research and Development at the Hattieburg Clinic, Hattiesburg, Mississippi.