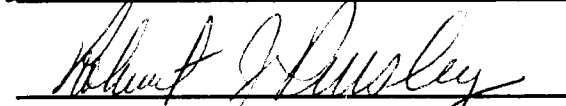


To the Graduate Council:

I am submitting herewith a dissertation written by Christine Dorresteyn Stevens entitled "An Analysis of Health Promotion Programs in North Carolina Hospitals." 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 Education, with a major in Health Education.

  
James J. Neurens, Major Professor

We have read this dissertation and  
recommend its acceptance:


Accepted for the Council:

  
Vice Provost and  
Dean of The Graduate School

AN ANALYSIS OF HEALTH PROMOTION PROGRAMS  
IN NORTH CAROLINA HOSPITALS

A Dissertation  
Presented for the  
Doctor of Education  
Degree  
The University of Tennessee, Knoxville

Christine Dorresteyn Stevens

August 1989

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## ABSTRACT

The primary purpose of this study was to analyze the current status of health promotion programs in North Carolina hospitals in order to ascertain the influence of type of hospital ownership on the offering of such programs. The key elements considered were: number and types of programs offered, target audiences, coordination of programs within the hospital, planning with other community organizations, methods of financing, types of health personnel involved, evaluation techniques used, attitudes toward offering programs, and types of facilities available.

A survey was mailed to the one hundred and twenty-eight short-term community hospitals in the state. Eighty hospitals completed the survey, which represented a return rate of sixty-two percent. For purposes of analysis, the population was divided into two groups, nonprofit hospitals and proprietary hospitals.

Findings include the fact that more than 95 percent of nonprofit and 100 percent of proprietary hospitals offer at least one type of health promotion program. The offering of health promotion is seen as both a public relations tool and a needed community service. Hospital employees are the target group for the largest number of programs. Frequently more than one department coordinates activities, and nurses, nutritionists, and physicians are the staff members most often involved with programs. Proprietary hospitals usually charged no fee for programs, while nonprofit institutions charged a small fee.

Based on the findings, it was concluded that neither hospital ownership nor size influenced the offering of health promotion programs, and that programs are likely to increase in the future. Overall coordination of programs is lacking, and existing hospital personnel are utilized rather than hiring more highly specialized staff.

Additionally, the DRGs do not appear to have had a limiting effect on the offering of health promotion programs. While there are some differences in the types of programs offered by nonprofit and proprietary hospitals, the trend toward an increasing number of proprietary hospitals will not adversely affect the availability of such programs.

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## CHAPTER I

### INTRODUCTION

In the United States for the year 1900, the three leading causes of death were pneumonia and influenza, tuberculosis, and diseases of the heart (*Prevention '84/'85*, 1985). By 1982, however, the top causes of death were diseases of the heart, malignant neoplasm, accidents, and cerebrovascular disease (*Prevention '84/'85*, 1985). These four factors accounted for eighty-nine percent of the total deaths reported for 1982 (*Prevention '84/'85*, 1985). The health concerns of the nation have thus begun to be focused on chronic conditions rather than communicable diseases.

Many of the consequences of these chronic conditions can be modified by changes in lifestyle habits. It has been estimated that cigarette smoking is the largest single preventable cause of illness and premature death in the United States (*Healthy People*, 1979). Alcohol misuse is another factor that accounts for more than ten percent of the deaths in this country annually (*Healthy People*, 1979). Other lifestyle changes such as lowering of salt and cholesterol in the diet and increased exercise could bring about a lessening of risk for many of the chronic diseases (*Promoting Health/Preventing Disease, Objectives for the Nation*, 1980).

One way to achieve these lifestyle changes is through the use of health promotion activities. Health promotion "seeks to facilitate community and individual measures which can foster the development of lifestyles to maintain and enhance the state of health and well-being." (Farquar and King, 1984). This would include personal habits in nutrition, exercise, smoking, alcohol use, and stress management. There is increasing evidence that health promotion efforts can significantly decrease risks for certain diseases (Farquar and King, 1984; Taylor, Ureda and Denham, 1982).

This interest in health promotion programs has changed the nature of hospital health education. Health education in the hospital had been primarily directed toward presenting information about disease states. Now, however, hospitals are beginning to be more concerned about sharing a role in prevention, as evidenced by the American Hospital Association's Policy Statement in 1979 that it is essential "to establish the hospital within the community as an institution which is concerned about good health as well as one concerned with treating illness." (*American Hospital Association's Policy and Statement*, 1979).

A Center for Health Promotion was created by the American Hospital Association, and its function was to broaden the scope of hospital health education to present information about lifestyles to nonpatients as well as inpatients. Thus, health promotion began to be recognized as a legitimate component of hospital services, and hospitals became some of the major providers of health promotion programs (Breckon, 1982).

The American Hospital Association conducted a national study in 1984, which indicated that health promotion programs sponsored by hospitals are on the increase (Ross, Sherman, Berg, and Radbill, 1985). It is important to ascertain if this is still the case in light of the following: 1) the institution of the diagnosis related group (DRG) method of reimbursement for Medicare patients and 2) changes in type of hospital ownership.

## I. STATEMENT OF THE PROBLEM

The purpose of this investigation was to analyze the current status of health promotion programs in North Carolina hospitals in order to ascertain the influence of the type of hospital ownership upon the offering of such programs.

## II. RESEARCH QUESTIONS

The following questions were derived from the problem statement:

1. What percentage of hospitals in North Carolina offer health promotion programs?
2. Are health promotion offerings likely to increase?
3. Is health promotion seen primarily as a public relations tool, a revenue generator, or a needed community service ?
4. What types of health promotion programs are most frequently offered by hospitals?
5. What target audiences are served by health promotion programs?
6. Which department in the hospital is responsible for coordination of health promotion programs?
7. Do most hospitals have a director for health promotion programming ?
8. What other members of the hospital staff actively participate in the offering of health promotion programs ?
9. How are health promotion programs financed ?
10. Have the DRGs affected the offering of health promotion programs ?
11. What methods are used to modify behavior and then assess the results ?
12. What other organizations are consulted in program planning ?
13. What specialized facilities are available for health promotion, and who would have access to these ?
14. Are there differences between proprietary and nonprofit hospitals in regard to any of the above ?

### III. NEED FOR THE STUDY

Commenting about the goal of Health for All by the Year 2000, Dr. Halfdane Mahler, Director-General of the World Health Organization, stated, "Hospitals clearly have an important role to play in primary health care. In addition to providing clinical care for patients..., hospitals will have to accept a social function that is appropriate for the closing decades of the Twentieth Century." (Mahler, 1980).

Thus, hospitals have been recognized as having an important role to play in health promotion activities. There is a growing scientific database that indicates promotion of healthy lifestyles can positively influence health status and decrease spiraling health care costs (Farquar and King, 1984; Taylor, Ureda, and Denham, 1982). Hospitals can achieve their goal of ensuring community health by providing such programs.

To date, most surveys of the educational role of hospitals have primarily been concerned with patient education (*Hospital Inpatient Education*, 1977; *Hospital Inpatient Education*, 1979; Peters, 1974). However, one national survey that was strictly concerned with health promotion programs was conducted by the American Hospital Association in 1984 (Ross et al, 1985). This study determined that eighty-four percent of the responding hospitals offered some type of health promotion program. It was considered important to ascertain if national trends which indicated health promotion programs were on the increase were also occurring in individual states. The South was chosen as a likely target area, as this region ranks lowest in the country in numbers of doctors and nurses available for the population (*Healthy People*, 1979).

North Carolina was chosen as the specific setting for the study as there appears to be a need for health promotion in the state. The ten leading causes of death for 1985 were heart disease, cancer, cerebrovascular disease, accidents, pneumonia and influenza, chronic obstructive pulmonary disease, diabetes, suicide, nephritis/nephrotic syndrome,



and chronic liver disease/cirrhosis (*Leading Causes of Mortality: NC Vital Statistics, 1985*). Statistics show that pneumonia and influenza death rates have increased between 1982 and 1985, and in addition, cancer of the trachea, bronchus, and lungs have increased by four percent between 1984 and 1985. Many of these conditions can be addressed and modified or alleviated by health promotion which would heighten the awareness of such areas as blood pressure control, safety education, smoking cessation, and nutrition.

Over one-half of the hospitals in North Carolina are classified as having fewer than one hundred beds, and most of these are located in rural areas. The rural hospital has a unique opportunity to provide leadership in health promotion. There is little competition from other institutions, and there is a population in great need of services. In most cases, rural populations also tend to have limited incomes, so the amount of the fees charged for health promotion programs may limit accessibility. It was considered essential to determine the current status of such programs in rural hospitals in order to ascertain how best to make use of more limited facilities and to determine the availability of such programs for the general public.

A similar study was conducted in the state of Michigan, and this showed that the number of health promotion programs was increasing fastest in hospitals whose size was less than one hundred beds (Pack, Deniston, Bates, and Beery, 1985). In contrast, the nationwide survey undertaken in 1984 indicated that little was being done in the way of health promotion in hospitals of this size (Ross et al, 1985). Clearly this indicates the need for further study.

No hospital survey to date has addressed the question of the influence of type of ownership on the offering of health promotion programs. Recent trends indicate that for-profit hospital chains are increasing ownership of acute care beds (Rosenstein, 1985).

Do proprietary hospitals see their role in health promotion differently than do nonprofit institutions? This question needs to be answered in order for communities to plan and coordinate health promotion activities.

The literature indicated a paucity of information on health promotion programs being conducted by North Carolina hospitals. An official of the North Carolina Hospital Association stated that no such study had been done and that this might provide valuable information for hospitals themselves to see what other hospitals were doing (Irwin, 1987).

The director of the Wellness Institute for the Wake Area Health Education Consortium stated that it was important to look at target populations for hospital health promotion and that by doing so this would provide knowledge about populations served throughout the state (Ponder, 1987). If some hospitals were successful in their health promotion efforts, this might serve as a catalyst for other hospitals to venture into this area.

Techniques used in health promotion such as fairs, festivals, clinics, and health risk appraisals needed to be enumerated, as apparently this has not been addressed by any study to date. In addition, joint sponsorship of programs with other community organizations needed to be investigated.

The focus of the study was to determine the current status of health promotion programs in North Carolina hospitals in order to ascertain whether type of hospital ownership influences the offering of such programs. The information obtained could be used to assist in the communitywide planning of health promotion programs for the entire population.

#### IV. DELIMITATIONS OF THE STUDY

The delimitations of this investigation were as follows:

1. This investigation was delimited to the study of hospital health promotion programs only.
2. The hospitals surveyed were delimited to short-term institutions in the state of North Carolina.

#### V. LIMITATIONS OF THE STUDY

This study was limited to the degree that hospitals who did participate were willing to volunteer information and truthfully answer the questionnaire.

#### VI. BASIC ASSUMPTIONS

For purposes of this study , the researcher made the assumption that hospital administrators would respond truthfully and accurately to the questionnaire.

#### VII. DEFINITIONS AND INTERPRETATIONS

For purposes of this study, the following terms were defined as follows:

1. status - a description of health promotion programs in both qualitative and quantitative terms. Status was determined by examining such key elements as number of types of programs offered, the coordination of such programs, evaluation techniques used, and increase or decrease in programs within the last year.

2. patient education - planned educational activities designed to increase knowledge of health status and self-care for persons admitted to hospitals.
3. health promotion- any attempt to influence individuals to adopt and maintain healthy lifestyles, frequently requiring the relinquishment of unhealthy behaviors. It includes those activities designed for basically healthy populations in order to reduce the risk of future illness or debilitating conditions (Pack et al, 1985).
4. health promotion program - planned activities designed to promote behavior that will enhance health status of the well population.
5. short-term hospital - one in which the average length of stay is less than thirty days.
6. community hospital - a general hospital whose facilities and services are open to the public (American Hospital Association, 1988).
7. proprietary - a hospital that is investor owned and run for the purpose of making a profit. This term is used synonymously with for-profit.
8. target audience - the population for whom a particular health promotion program is designed. Inpatients and outpatients were considered as target audiences only for programs that would apply to healthy individuals.

## VIII. SUMMARY

As the health concerns of society began to focus more on chronic conditions, health education programs in the hospital started to reflect this change and switched their emphasis from disease states to prevention of chronic lifestyle related conditions. The increasing number of health promotion programs offered for the community demonstrates this trend.

At the time of this study, there was no information available on the status of health promotion programs offered by North Carolina hospitals. It was considered important to ascertain if national trends held true for North Carolina, as the population was subject to the same chronic conditions reported for the entire country. Results of the study could be used in determining how hospitals could help meet health promotion needs of the communities they serve.

The remainder of the study is organized into chapters, each of which has a specific purpose. Chapter II reviews related literature and methodology. Chapter III describes the methodological procedures employed in this investigation. Chapter IV presents an analysis of the data findings. Chapter V is a summary of the findings, conclusions, and recommendations of this study.

## CHAPTER II

### LITERATURE REVIEW

#### I. HISTORICAL PERSPECTIVE

As early as 1946, shortly after the passage of the Hospital Survey and Construction Act, the hospital was seen "not only as a center for curative service but also as a facility for the promotion of positive health" (Johnson, Miller, and Spinney, 1947). Health education in the hospital began on an informal basis with the practice of answering patients' questions and telling them what to do (Breckon, 1982). Doctors had long been recognized as teachers, but due to the shortage of their time, the nurse, who was most often with the patient on a one-to-one basis, acquired that role.

Programs did not begin to be more structured until the 1960s, in part due to the influence of the women's health movement, consumerism, and the self-care movement (Flynn and Griffin, 1984; Gartenfield, 1978). The American Hospital Association (AHA) responded in 1964 by issuing a statement indicating hospitals should provide patient education to the fullest extent possible (Breckon, 1982). The American Public Health Association concurred, and its Committee on Educational Tasks in Chronic Illness concluded that education should be an integral part of patient care (Breckon, 1976).

Progress was slow, for when President Nixon created a committee to study health education across the nation, it was discovered that of \$83 billion spent on health care in 1973, only one-half of one percent was spent on health education and preventive medicine (Weingarten, 1974). In particular, the committee found very little effective health education occurring in hospitals. Out of seven thousand hospitals surveyed, it was concluded that only four were doing an effective teaching job (Weingarten, 1974).

The Patient Bill of Rights, approved by the AHA in 1973, played a major role in the expansion of hospital health education. Under this provision, patients have the right to current information concerning diagnosis, treatment, and prognosis of their condition (American Hospital Association, 1973). This was necessary so the patient could give informed consent to any procedures during the course of treatment. Thus, instructing the patient became a legal obligation.

Further enhancement of this position came in 1974, when the AHA's Special Committee on Health Education issued a statement indicating that "Health education is an integral part of quality health care," and furthermore, hospitals had an obligation to organize and implement such programs (Breckon, 1976). Recognition of health education as necessary in treatment was also perceived by Medicare, as the organization agreed to cover patient education activities if they were an integral part of care (Breckon, 1982).

On yet another front, the American Medical Association added support for patient education in a 1975 statement that said planned programs should be developed and supervised by patient education committees consisting of health professionals, educators, and consumers (American Medical Association, 1975). The thrust of this message was toward more organization and structure for such programs.

In 1978, the AHA set up a Center for Health Promotion, whose function was to assist and encourage hospitals to develop and implement health promotion programs (Longe and Ardell, 1981). The Center sponsored conferences to foster development of hospital-based wellness centers and provided a professional network for hospital wellness promoters. This was a major step in broadening the scope of hospital health education to include programs for nonpatients as well as patients.

The Policy and Statement on the Hospital's Responsibility for Health Promotion, issued by the AHA in 1979, indicates that it is necessary to "establish the hospital as an

institution in the community that is concerned about good health in addition to one concerned about treating illness" (American Hospital Association, 1979). This sanctioned and legitimated health promotion as an important function of the hospital in serving the community. The overall goal of hospital health education was shifted to include information about lifestyles in addition to providing knowledge about specific disease states. Hospitals have thus entered the marketplace as providers of health promotion programs. The diversity of these programs is discussed in the following section.

## II. CURRENT STATUS OF HOSPITAL-BASED HEALTH PROMOTION

Health promotion has been defined as "any combination of health education and related organizational, economic, and environmental supports for behavior conducive to health in individuals, groups, or communities" (Green, 1976). The AHA sees health promotion as "the process of fostering awareness, influencing attitudes, and identifying alternatives so that individuals can make informed choices and change their behavior in order to achieve an optimum level of physical and mental health and improve their physical and social environment" (American Hospital Association, 1979). In implementing such programs, hospitals have benefitted both themselves and the community.

A 1983 survey of forty-nine hospitals designated by the AHA as having innovative community health promotion programs listed the following benefits for hospitals: improved market position, increased referrals of patients, diversification of services, increased revenues, more efficient use of hospital resources, improved relations with the corporate sector, and improved patient care (Longe, 1985). Target populations that these hospitals served included local businesses, older persons, children, alcoholics, and discharged and home-bound patients. Program topics encompassed the following six categories: patient education outreach, behavior change activities such as stress



management and smoking cessation, lifestyle/wellness activities such as mall walking and low calorie cooking, self-care involving how to treat illness and injuries, life savers, which deal with safety skills, and employee activities designed for workers.

Northwestern University in conjunction with the AHA's Center for Health Promotion conducted a national survey of hospitals in 1984. This study demonstrated that nearly eighty-five percent of the responding 3578 hospitals sponsored health promotion programs. These programs were aimed at five principle target populations: inpatients, outpatients, hospital employees, nonpatients/community members, and business employees (Ross, Sherman, Berg, and Radbill, 1985). Larger hospitals were more likely to offer such programs, but approximately seventy-seven percent of the hospitals with between six and two hundred beds did offer at least one program.

The top five programs from all of the hospitals surveyed were nutrition education, diabetes education, stress management, hypertension control, and care after a heart attack (Ross et al., 1985). Of twenty-one programs recommended in *Promoting Health/Preventing Disease: Objectives for the Nation*, eight were among the most commonly offered programs. These included nutrition education, stress management, hypertension control, prenatal education, physical fitness, smoking cessation, postnatal education, and aerobic dance (Ross et al., 1985; *Promoting Health/Preventing Disease*, 1980). Cardiopulmonary resuscitation was the most frequently offered program for community groups, business employees, and hospital employees.

The diversity of health promotion programs offered by hospitals appears large. A statewide hospital program called SEAT was instituted in Vermont to provide low cost car seat rentals to new parents. Use of car seats for newborns was found to increase from seventeen percent before the program to eighty-two percent in the third year of the program (Colletti, 1983).

The North Shore Hospital on Long Island, New York sponsors a unique drug abuse education and prevention program (Imhoff, Walder, and Buckley, 1972). Representatives from surrounding school districts were appointed to work with the hospital staff in the development of the program. The hospital is responsible for training all health education personnel in the district. They help to supply the educators with the most up-to-date technical information.

Another area hospitals are venturing into is worksite wellness programs. The Wesley Medical Center in Wichita, Kansas has a contract with Boeing Military Airplane Company to manage a \$3.5 million health facility located on company grounds (Long and Ardell, 1981). Activities include conducting screening programs and health risk assessments. Another example is New Milford Hospital in Connecticut, which maintains a worksite wellness program for Kimberly-Clark (Longe and Ardell, 1981).

In addition, hospital libraries are becoming increasingly utilized as sources for health information. One hospital in New Jersey has set up what it calls a consumer health information collection. This helps to provide guidance to the public on general health matters as well as serving as a support for patient education activities (Hospital's library serves, 1982).

A cooperative library network in Cambridge, Massachusetts has been established between the community hospital and six public library systems in the area (Gartenfeld, 1978). The Community Health Information Network, as it is known, assists in the development of health collections and provides an interlibrary loan system for all members. The network office answers reference questions and develops bibliographies that are of general interest to the public.

Senior citizens have become an increasingly popular target population for health promotion programs. A 1984 survey indicated that approximately one-third of the

hospitals in the United States offered special programs for people between the ages of 65 and 74 (McCormick, 1986). One of the most popular offerings was stress management, which helped senior citizens to cope with such changes as retirement and loss of a spouse.

Indications are that hospital health promotion programs will continue to grow and expand. One study showed that the hospitals increasing their activities fastest were those with fewer than 100 beds (Pack, Deniston, Bates, and Beery, 1985). According to Mary Longe of the AHA's Center for Health Promotion, "it appears that the field of hospital-based community health promotion is unlikely to become standardized, but rather will continue to change and grow in different directions" (Longe, 1985).

### III. MANAGEMENT AND ORGANIZATIONAL STRUCTURE

The organizational structure of health promotion within the hospital varies, depending upon the size of the institution. A 1978 survey of inpatient education showed that of the 4678 hospitals reporting, 49.3% had a coordinating department for education (American Hospital Association [AHA], 1979b). This represented an increase of approximately 4% over a 1975 survey (AHA, 1979b). Of those hospitals with a designated department for patient education, 84.6% identified a single person responsible for the coordination effort (AHA, 1979b). Only 13.9% of those individuals were full-time coordinators, however.

The nature of the coordinating department differs with bed size. In hospitals with 99 beds or less, the coordinating department was most likely nursing inservice or nursing administration (AHA, 1979b). This remained the case until a reported bed size of over 400, at which point hospitals of this size indicated that 34.5% of the coordinating departments were listed under education (AHA, 1979b).

The type of personnel involved in coordination also differs with bed size of the hospital. According to the AHA, for 30 to 99 beds, the director or assistant director of nursing is usually in charge. When a bed size of 200 to 299 is reached, there is usually a patient coordinator in the nursing and inservice department. For hospitals with 300 to 399 beds, the patient coordinator is under either nursing or an education department. Only in hospitals of 400 beds or more is there likely to be a health education department (AHA 1979c).

A 1983 survey of health promotion programs in Michigan hospitals showed that nurses were the staff for sixty-two percent of the programs (Pack, et al., 1985). Most hospitals tended to use staff they already had on the payroll rather than hiring new personnel. Again the trend was demonstrated that as hospitals increased in size, health educators became involved more frequently.

In a nationwide survey of hospital health promotion programs conducted in 1984, fifty-eight percent of the respondents stated that organization of such programs resided with a single department (Ross, et al., 1985). The next most common arrangement found was joint coordination by two or more departments. Overall, eighty-five percent of the respondents indicated that not more than two full-time people were employed to coordinate health promotion programs in hospitals.

A study carried out by the AHA's Center for Health Promotion showed that placement of a community health promotion program in the hospital's organizational structure can frequently determine success or failure of the entire program (Longe, 1985). Half of those programs designated as innovative by the Center operated as a function of a single department or division. The second most common organizational form was as a separate department. Some of the innovators organized their efforts as a separate corporate entity such as a foundation or corporation. In many cases, it was demonstrated that as

programs became more successful, they achieved departmental status and acquired greater autonomy. Some hospitals then proceeded to grant such programs a separate corporate structure. Overall, it was found that programs had more success if they received strong administration support and approval (Longe, 1985).

In *Implementing Patient Education in the Hospital*, published by the AHA, it is recognized that development of the coordinator's role is an important step toward an efficiently managed patient education program (AHA, 1979c). In many cases, this responsibility goes to the nursing department in consideration of the available resources. However, it is stated that "because of the variety of hospital management systems, it is not possible to recommend one way to define this role that would be appropriate to every setting" (AHA, 1979c). What is stressed, though, is administrative support including budget allocations and staff assistance when warranted.

#### IV. PROGRAM PLANNING

According to Barbara Redman, in a study of several Veterans Administration hospitals, it appeared that patient education began in a grass-roots fashion with programs for certain target groups being conducted before the hospitals themselves made a formal decision to offer patient education as part of their services (Redman, 1981). Needs assessments were informal, and coordinated planning and implementation were lacking. Most institutions were struggling with the problem of how to effectively target groups for instruction and how to focus on particular learning objectives. She concluded that careful management is a key element in development of hospital programs, and that there must be sufficient formalization and centralization for implementation to succeed.

A 1975 survey of hospital patient education indicated that hospitals were just beginning to coordinate their patient education activities on an overall hospital basis (AHA,

1977). Recommendations from the study include a suggested period of six to eight months for initial planning, gaining support of nursing management for programs, and use of a multi-departmental committee for planning and ensuring cooperation on an overall hospital basis.

The need for the hospital staff to be more skilled at health education planning was recognized by a nationwide study conducted two years later (AHA, 1979b). It was found that while one department might coordinate multidisciplinary programs, other departments such as dietary and respiratory therapy still conducted their own patient education activities. In addition, there was a cited need for hospitals to recognize the expertise and resources that other health organizations could contribute to the development of patient education activities. Specifically, it was recommended that voluntary health associations, professional associations, and hospital associations develop better communication and plan more cooperative efforts to increase patient education resources at the local level.

The shot gun approach to providing health promotion programs appeared to predominate in Michigan hospitals, according to a 1983 survey (Pack, et al., 1985). The theory is that if enough ammunition is used, something will be hit, or in the case of health promotion programs, success with certain populations will be achieved. These hospitals were criticized for lack of guidance from centralized sources. The researchers stated, however, that two out of three programs surveyed had developed within the last two years and that this may account for a lack of organization and planning at some extent.

Other studies indicate that some hospital health promotion programs are more carefully planned. Forty-nine hospitals identified by the AHA's Center for Health Promotion as innovators were surveyed for their techniques and offerings (Longe, 1985). Most of these hospitals used marketing research concepts to plan their services and programs more effectively. In this manner, specific target populations were identified and

each was treated separately. This allowed for more specific health messages to be delivered with a greater likelihood that behavioral changes would take place (Longe, 1985).

An evaluator of wellness programs, Dr. Wayne Higgins, stated that the planning phase of programs is where the purpose, scope, and resources allocations are determined (Higgins, 1986). Cost effectiveness, acceptance, and health and economic impact should all be ascertained during this phase. He further indicated that survival of programs may depend upon documentation of cost effectiveness, so this is a necessary consideration (Higgins, 1986).

In his book entitled *Hospital Health Education*, Donald Breckon asserted that a representative from the local health department should serve on the hospital health education committee (Breckon, 1982). Furthermore, hospital staff members should work closely with Health Systems Agencies who do comprehensive health planning at the local or regional level. In addition, Breckon stated that the medical records librarian should be consulted about readmission data and intake and discharge diagnoses. This input plus interviews with area physicians should all be part of the planning process to help identify target groups (Breckon, 1982).

The nationwide survey of hospital health promotion programs conducted by the AHA in 1984 showed that about two-thirds of the respondents stated that they worked with an average of 2.3 community organizations (Ross, et al., 1985). Other aspects of planning such as whether or not there is a hospitalwide committee or input from the local health department were not included within the scope of this particular study.

In *Implementing Patient Education in the Hospital*, the following reasons were given for developing a planned patient education program:

1. Planned programs help to meet patient education criteria as outlined by the Joint Commission on Accreditation of Hospitals.

2. Planning helps the hospital meet criteria for informed consent and protects the institution against liability.
3. Planned patient education assists the health care professional to meet the responsibility for providing education as an integral part of care.
4. Planning can help in the management of limited resources such as staff, equipment, space, and money.
5. Good planning leads to fewer readmissions and increased community support for the hospital.
6. The needs of patients as outlined in A Patient's Bill of Rights can be met in this manner (AHA, 1979c).

These criteria can be applied to health promotion programs which deal with community members as well as patients. Target groups need to be identified and resources of staff, equipment, space, and money must be elucidated in order to have a successful program. Input from community organizations such as volunteer groups or health departments helps to promote acceptance for such programs.

## V. PROGRAM STAFF

While the origins of health promotion probably go back to the doctor-patient relationship, due to time constraints the physician is not in practice the prime purveyor of health promotional activities in the hospital setting. A 1975 AHA survey of the nation's hospitals indicated that while forty-two percent of staff physicians were involved in teaching, it was mainly nurses, dietitians, therapists, and community support groups who comprised the teaching staff (AHA, 1977). Another study of selected hospitals ranked the use of teaching personnel in the same manner (Peters, 1974).

Nurses have usually been assigned a key role in health education due to frequent and continuing patient contact and to their image as having a supporting and nurturing character (Pohl, 1973). They have the opportunity in acute care settings to take advantage



of a teachable moment and conduct lifestyle assessments, role modeling, and effective teaching during clinical practice (Flynn and Griffin, 1984). Anne Somers found that "The one profession that is now doing the most consumer health education in the United States is nursing" (Somers, 1976).

Other allied health professionals not traditionally thought of as teachers have become involved in health promotion. A study conducted at the Detroit Medical Center had pharmacists offer programs on drug use and misuse (Powell, 1982). Consumer groups who participated in the seminars commented very favorable about the pharmacist's ability to discuss information at the layman's level.

Dietitians, social workers, and laboratory personnel have also been utilized for health education. This has occurred in team approaches to patient education. One study of patients with congestive heart failure showed a significant drop in readmissions after a team educational program that included knowledge about the disease as well as suggested lifestyle changes (Rosenberg, 1971). Another program which was directed at diabetic patients demonstrated that an interdisciplinary team was able to cut down on hospitalizations due to complications of the disease (Diabetes programs, 1986).

In his book entitled *Hospital Health Education*, Donald Breckon concluded that staff selection and training is critical to the development of health education programs that are effective and efficient (Breckon, 1982). Furthermore, he stated that health education is the responsibility of all staff members, including physicians, nurses, therapists, technologists, technicians, and others.

In her study of hospitals in the process of developing patient education programs, Barbara Redman also concluded that the team approach is essential (Redman, 1981). She states, "A mulitdisciplinary, shared, decision-making approach to patient education can help to build a strong program."

A multidisciplinary approach is also a very practical one. In a 1983 study of health promotion programs in Michigan hospitals, it was discovered that hospitals tended to use the staff they already had for running these programs regardless of whether the hospital had previously been involved in educational efforts (Pack, et al., 1985). Again nurses constituted the bulk of the staff, while health educators, nutritionists/dietitians, and other disciplines were involved to some extent. As far as actual teaching hours were concerned, auxiliaries and volunteers spent the most time, although programs were planned by hospital staff members (Pack, et al., 1985).

*Implementing Patient Education* includes job descriptions for staff who would be involved in education. Head nurses are listed as the key people who implement patient education by ensuring that the staff attends preparatory programs and continuing education offerings (AHA 1979c). Staff nurses are considered to be the ones most responsible for direct teaching. The dietitian/nutritionist has the responsibility for identifying nutritional needs in the populations served and developing programs to meet these needs. Pharmacists are also recognized as having a role to play.

A model program conducted at the University of Kentucky Medical Center for the purpose of reducing risk factors for cardiovascular disease was cited by the Kellogg Foundation for its comprehensiveness and innovation in forging a team of interdisciplinary practitioners (Robinson, 1984). This team consisted of a family practice physician, a health care administrator, a physical therapist, a nutritionist, a behavioral scientist, a medical technician, and an exercise physiologist. If the team strives for communication and cooperation, this approach can be very successful. This approach represents the trend for hospitals who offer health promotion programs at the present time.

## VI. METHODS OF FINANCING

Traditionally, hospital health education has been financed by one of three methods. These are billing to third party payers, including costs in room rates, and billing patients directly (Breckon, 1976). The advantages and disadvantages of each of these methods will be discussed.

The "White Paper on Patient Education" developed by Blue Cross of America in 1974 gave the impetus for coverage of patient education by third party payers (Blue Cross Association, 1974). The organization formally endorsed the concept of patient education and proposed certain guidelines for reimbursement. However, implementation had to occur on the state level.

Another national organization, the Health Insurance Association of American, lent its support to patient education in 1977 (Health Insurance Association of America, 1979). The report concluded, however, that costs of health education should be built into each hospital's per diem rate. The feasibility of such a system was concluded to depend upon three factors: acceptance of standards of professional practice, approval of services and programs by regional Health Services Agencies, and periodic review by the Joint Commission on Accreditation of Hospitals.

Services that are routinely covered by third party payers at the present time are those educational activities directly related to intake diagnosis and considered essential for home care (AHA, 1979c). This excludes most prevention interventions. A recent survey determined that approximately 96 per cent of Blue Cross plans and 90 per cent of Blue Shield plans cover patient education when it is provided as a part of treatment (Breckon, 1982). Preventive health education was found to be covered by only 73 per cent of Blue Cross plans and 65 per cent of Blue Shield policies. Community health education fared the

worst, as it was only covered by 41 per cent of Blue Cross plans and 59 per cent of Blue Shield plans.

If third party reimbursement for health promotion were to become a reality, there is the potential for waste and profiteering (Breckon, 1982). Therefore standards of practice and careful quality control would be necessary. The American Hospital Association reports that there should be a mechanism, however, that encourages provision of patient education services outside of the inpatient setting (AHA, 1979c).

Indirect billing, or including the cost in daily hospital charges, is another method of paying for health education. A 1975 survey conducted by the American Hospital Association showed that 58.7 per cent of the respondents funded inpatient education in this manner (AHA, 1977). Only 7.5 per cent of the hospitals reporting billed patients separately and 15.5 per cent used gifts or grants. The remaining 18 per cent did not respond to the question.

Of those hospitals who obtained revenue for education by inclusion in daily fees, only 25 per cent budgeted specifically for patient education (AHA, 1977). Problems cited included the difficulty of determining the amount of time regular staff members spent in teaching. However, coordination, training time, and secretarial time were usually included in the budgetary process.

A national survey that was restricted to hospital health promotion programs indicated that these programs were funded with hospital money (Ross et al., 1985). Some disadvantages to this type of funding are that health educators are often seen as a drain on the budget so their professionalism may be compromised, and in addition, it is more difficult to receive an adequate share in this manner (Breckon, 1982).

The third method of financing is by billing the patient or individual directly for educational services. As mentioned previously, a small number of hospitals use this

method for funding inpatient education (AHA, 1977). It appears to be used to a greater extent in health promotion programs. A survey of hospitals in Michigan indicated that 66 per cent of health promotion programs charged a fee directly to the client (Pack et al., 1985). A relatively consistent fee of \$15 was charged per program. However, hospital administrators saw health promotion services as a way to enhance the hospital's image in the community, and thus many did not see it as a profitmaking venture (Pack et al., 1985).

Using the direct billing system has the drawback of convincing the client that education is necessary and worth the charge (Breckon, 1982). In addition, by charging a fee, often the target groups most in need of services, that is the poor, are excluded from them. Thus, it is not regarded as the most desirable means of program funding (Breckon, 1982).

Several other means of funding health promotion programs were reported by hospitals designated as innovators by the American Hospital Association. They are: grants from the federal government or local and national foundations, donations from local businesses, contracts with businesses for the provision of services, joint venture with community organizations, use of volunteers, and fund-raising events such as fun-runs (Long, 1985). These avenues need to be explored further by more hospitals.

## VII. PROGRAM EVALUATION

According to the American Hospital Association, evaluation of patient education programs can indicate the extent to which patients have achieved the stated objectives, the need for remedial or review instruction, or the need for the revision of unclear or inadequate objectives (AHA, 1976c). Methods for gathering this information have included interviews or questionnaires to determine knowledge, observation of tasks being

performed or behavioral changes exhibited, and interviews or questionnaires to determine attitudes toward the program (AHA, 1976c).

In *Hospital Health Education*, Donald Breckon (1982) stated that evaluation should start with the specific program objectives in order to determine which outcomes are desirable. There is a need for determining effort, effectiveness, and long range impact. Effort can be estimated by looking at the number of clients entering or completing the program. Immediate feedback from both clients and staff can help to gauge effectiveness. Long range impact is best determined by interviews or telephone conversations which look at compliance with medical regimens and readmission rates.

There are some difficulties encountered, however, in conducting evaluations of hospital health education programs. If program objectives are not clearly stated, often they are not measurable (Bryant, 1976). Evaluation procedures must be planned ahead of time, and there must be adequate financial means to collect the data (Bryant, 1976). In a hospital setting, long term follow-ups are often difficult. In spite of these difficulties, it is usually necessary to conduct evaluations for programs to be continued.

A 1974 study of hospital health education programs found that evaluation was often neglected (Peters, 1974). Forty-nine out of sixty-five responding hospitals indicated that some sort of evaluation was done. Procedures included personal interviews by the staff, knowledge testing, telephone calls or home visitations, and the use of behavior inventories. Concern was expressed by administrators, however, that evaluation procedures were inadequate.

The American Hospital Association surveyed the nation's hospitals in 1978, and of 2921 hospitals reporting, 195 said they had documented statistics about the impact of patient education (AHA, 1979b). Usually, knowledge was evaluated, but for the most

part, hospitals did not plan evaluations as programs were developed. They did collect opinions about programs and also used assessments such as pre- and post-tests.

A specific study of health promotion programs in hospitals found that one-quarter of the programs reported using mail surveys as a follow-up technique (Pack et al., 1985). Some hospitals used telephone interviews, but overall, only fifty-three percent of the programs did any kind of evaluation.

While the preponderance of hospitals do not have extensive documentation, there are numerous examples in the literature of detailed studies of individual programs. A few of the better examples will be reviewed here. One of the earliest and most often cited programs was a study by Rosenberg of patients with congestive heart failure. Included in the educational intervention was knowledge of the disease, medications, and adherence to diet (Rosenberg, 1971). Readmissions and readmission days were considered, and there was a significant difference between the group exposed to the program and a control group that received no formal education about the disease.

More efficient diabetes care was obtained by a California hospital after installation of a hot line for information. Admission rates of the clinic patients dropped considerably, as did the use of the emergency room, resulting in savings of between \$1.7 and \$3.4 million (Miller and Goldstein, 1972).

A study to determine the value of structured preoperative teaching was conducted by Lindeman and Van Aernam in 1971. Structured teaching consisted of a written plan, slide shows, and classes designed to reduce respiratory and circulatory complications often accompanying surgery. This was accomplished by instruction in deep breathing and coughing techniques and bed exercises. The control group received unstructured individualized instruction. The experimental group was found to have a ten percent greater

expiratory flow rate and a hospital stay that was shortened by an average of 1.9 days (Lindeman and Van Aernam, 1971).

Instruction for hemophilia patients also resulted in a decrease in hospitalization days. Patients with hemophilia A and B who were being seen at a New England medical center were given education in home management of bleeding problems (Levine, 1973). After a lecture and instruction on sterile technique and venipuncture for family members as well as patients, hemophiliacs were permitted to use home infusions for incidences of bleeding. The result was a seventy-four percent decrease in absenteeism and an eighty-nine percent decrease in hospital days as compared to statistics on the same group for the previous year.

A diabetes management program at Grady Memorial Hospital in Atlanta, Georgia also saved health care dollars. Outpatients came to the hospital for evaluation, monitoring, and work with an interdisciplinary team in learning how to cope with disease (Diabetes programs, 1986). There were consultations with physicians, nurses, and dieticians and periodic reassessments. Hospitalizations for ketoacidosis were reduced by eighty percent.

Green, an advocate of the application of cost-benefit analysis to health education, conducted an experiment with asthmatic patients at Johns Hopkins Medical Center (1976). One group of patients was randomly selected for discussion on coping with asthma attacks using proper medication. This group as well as a control group were asked to keep diaries of visits to the emergency room. There was a difference of fifty-five visits between the groups, each of which consisted of twenty-six patients. By figuring the cost of the intervention as opposed to emergency room visits, Green (1976) calculated a cost/benefit ratio of 1:5.

Use of hospitalization data to evaluate health education programs can be misleading, however. Often it is difficult to isolate a single cause for hospitalization such as a lack of



patient education (Sinnock, 1984). There are so many other variables involved. One researcher feels that the effect of patient education can be measured better by looking at changes in knowledge, skills, and behavior (Sinnock, 1984).

Programs that are designed for well populations rather than patients encounter greater difficulty in establishing evaluation criteria. One investigator states that evaluation of wellness programs must take place during all phases of the program (Higgins, 1986). Preliminary evaluation should occur during the planning phase and consist of projecting costs, effectiveness, and health impact. Process evaluation monitors the quality of the experiences on a frequent basis. Impact evaluation measures the change in risk-related behaviors. Finally, outcome evaluation is given in terms of changes in health status and health-related costs. This would include changes in mortality or morbidity rates, health care utilization, or employee absenteeism. It is realized, however, that "most health programs yield benefits which are difficult to attribute solely to the effects of the program and/or difficult to quantify in dollar terms" (Higgins, 1986).

Another means of approaching wellness evaluation is calculation of YPLL, or years of potential life lost. This is derived from the number of deaths in each age category multiplied by the difference between sixty-five and the age at the midpoint of each category (Kolbe, 1986). Thus, premature mortality is being measured.

Population attributable risk is another computation that can be used. It depends upon the proportion of the total population that is exposed to a risk and the relative risk of that particular behavior (Kolbe, 1986). The formula, as given below, can compare the extent to which various behavioral risk factors contribute to mortality in populations, and thus can be used to set priorities for health promotion intervention (Kolbe, 1986):

$$PAR = \frac{P(R-1)}{P(R-1) + 1}$$

P = proportion of the population exposed to a risk

R = relative risk for a particular behavior

Regardless of which method of evaluation is chosen for a particular health promotion program, it is considered essential to make some sort of assessment. Not only does it give programs credibility, but it may be necessary for their survival (Higgins, 1986).

### VIII. RELATED METHODOLOGIES

According to Babbie (1973), survey research is frequently conducted for the purpose of making descriptive assumptions about a population and then utilizing the findings to make generalizations about human behavior. The survey researcher works with a large number of variables and examines the relative relevance of each. Often data is collected concerning the existing status of a phenomenon, and it is used to compare to a standard as a means of determining the adequacy of that status (Van Dalen, 1973). For this particular study, the status of hospital health promotion programs were investigated, but there were no universally accepted standards for comparison.

A survey in which the data is collected at a single point in time is called a cross-sectional survey (Babble, 1973; Cates, 1985). This enables the researcher to describe a population at that time. This is the method that was employed for this study. This type of research relies on the acquisition of data by observation with insight (Leedy, 1985). The researcher closely scrutinizes the population bound by the research parameters and then makes a careful record of what is observed.

Due to the fact that observation is the principle means of collecting data, it is important to have safeguards against the influence of bias (Leedy, 1985; Robinson and Neutens, 1987). The researcher must use caution in both gathering and interpreting the data. One consideration is to carefully define the study population (Robinson and Neutens, 1987). Then the data needs to be well organized and systematically presented so that valid conclusions may be drawn (Robinson and Neutens, 1987). Several previous surveys that relate to the present study will be reviewed here, keeping in mind these general principles.

Selected hospitals in the United States were surveyed in 1974 in order to determine characteristics of their patient education programs (Peters, 1974). The survey included a list of twenty-one programs, but many of them were stated in general terms, such as pediatric education or instruction for neurological conditions. Hospitals were questioned about staff involved, methods of evaluation, inservice and continuing education, responsible department, and equipment and materials. Peters (1974) concluded that the larger the hospital, the greater the scope and variety of offerings. This study was mainly concerned with disease-oriented programs, however.

The American Hospital Association conducted a patient education survey on a national scale in 1975 (AHA, 1977). Of the 4669 hospitals responding, forty-six percent had at least one program, and again it was found that the percentage of hospitals offering programs increased with hospital size. No attempt was made, however, to determine the statistical significance of the percentage differences. This study also examined funding of programs, personnel included, and materials used. It was discovered that revenue sources for most programs were the daily hospital rates (AHA, 1977). All findings were strictly limited to inpatient programs only.

A repeat survey by the American Hospital Association was conducted in 1978. The instrument was very similar to that used for the earlier study. At this time, over sixty-two

percent of the hospitals responding indicated that they had at least one patient education program. The Mid-Atlantic region showed the largest percentage of hospitals offering programs, while the lowest region was the West South Central with only forty percent of hospitals offering programs. Increases were reported for all types of programs, thus illuminating a general trend towards an expanding role in education for hospitals (AHA, 1979b).

A nationwide survey devoted solely to hospital health programs was conducted by the American Hospital Association in conjunction with Northwestern University in 1984 (Ross et al., 1985). The overall return rate was fifty-seven percent, and of these hospitals, it was determined that approximately eighty-four percent offered some type of health promotion program. The questionnaire contained a list of seventy-seven different health promotion programs, and respondents were asked to indicate which ones were currently being offered to at least one of five target populations. Perhaps the complexity may have kept the response rate from being higher.

The Northwestern survey showed that thirty-three percent of responding hospitals offered health promotion programs to businesses (Ross et al., 1985). However, a number of hospitals indicated that they were planning such programs for the near future. Generally, larger hospitals were more likely to offer health promotion than smaller hospitals, but the difference was not significant. There was no attempt to analyze the data in terms of offerings by proprietary hospitals as opposed to nonproprietary ones.

Evaluation techniques were enumerated by a survey of health promotion activities in colleges and universities. One hundred and fifty-eight of the two hundred and fifty members of the American College Health Association replied to the survey (Chervin and Slaone, 1985). The study solicited information on seventeen different types of health education programs. Respondents were asked to indicate which ones they offered and if

any evaluation was conducted. Analysis of the results indicated that the programs usually evaluated were those which were most easily measurable, such as smoking cessation and fitness. Evaluation methods were mainly of the simplest design, including the techniques of process monitoring and satisfaction surveys. Cost analyses and cost-effective analyses were practically never used. The authors concluded that while there are existing problems such as lack of time and training, high quality evaluation is necessary to best allocate resources and help maintain program funding (Chervin and Sloane, 1985). The study did not attempt to explore trends in health promotion program offerings, but focused more specifically on evaluation practices.

A review of health promotion programs in Michigan hospitals was conducted in 1983. Eighty percent of the state's two hundred and seventeen hospitals responded to the survey, and of these, forty-eight percent reported providing health promotion programs (Pack et al., 1985). Hospitals with between six and ninety-nine beds averaged only twenty-nine percent reporting programs, whereas ninety-one percent of the hospitals with over five hundred beds indicated that they offered health promotion programs. This is in direct contrast to the Northwestern survey that found little difference between large and small hospitals as to the percentage reporting health promotion programs. The statistical significance of these percentage differences was not determined. Certainly further clarification is needed on this matter.

Although no questions were asked about cooperation with other community organizations or about evaluation techniques, the instrument used in the above survey corresponded most closely with the goals of this author's study of North Carolina hospitals. It was comprehensive without being unwieldy. Therefore this was the instrument chosen to be modified for the present study.

## IX. SUMMARY

Health promotion in the hospital setting evolved from patient education practices that became diversified to include knowledge of lifestyle habits in addition to information about disease states. As this change occurred, the target audiences began to consist of outpatients, hospital employees, community members and business people in addition to the traditional inpatient groups. Hospitals were seen to offer a "teachable moment", whereby patients could be addressed about current symptoms, and later an attempt could be made to modify lifestyle in order to prevent reoccurrences or more serious sequelae.

National surveys seem to indicate that health promotion programs are increasing in number in hospitals. Some of the key considerations in determining the status of such programs are method of coordination in the hospital, planning with other community groups, ways of financing programs, types of professionals involved in teaching, evaluation techniques used, and methods of modifying behavior, in addition to number of target groups. It is essential to study each of these aspects of programs in order to determine the commitment of hospitals to health promotion.

## CHAPTER III

### METHODOLOGY

#### I. OVERVIEW

The primary purpose of this study was to analyze the influence of type of hospital ownership on status of health promotion programs in North Carolina hospitals. A review of the literature indicated that there was a national trend toward increasing the scope and number of health promotion programs offered by hospitals (*North Carolina Vital Statistics*, 1985). It was considered important to ascertain whether such a trend was demonstrated in North Carolina hospitals. These baseline data could be used to make future predictions and recommendations concerning the role of North Carolina hospitals in health promotion.

The key elements used in defining the status of health promotion programs were as follows: number of different types of programs, target audiences, coordination of programs within the hospital, coordination with other community organizations, methods of financing, types of health personnel involved in such programs, use of evaluation techniques, attitudes of administrators toward providing health promotion, availability of specialized facilities, and reported increases or decreases in overall programming.

#### II. POPULATION

The study population consisted of all short-term community hospitals in North Carolina. Federally supported hospitals were excluded from this study. The entire population consisted of one hundred and twenty-eight hospitals of which forty-eight were owned by state or local government, twenty-six were investor owned, and the rest had

non-government not-for-profit ownership. This was considered a workable number for survey purposes and the whole population was used.

For purposes of this study, the population was divided into two groups on the basis of type of hospital ownership. These two categories were nonprofit hospitals and for-profit or proprietary hospitals. Comparisons were made on the basis of these two divisions.

### III. INSTRUMENTATION

After a review of instruments used in surveys of patient education and hospital health promotion programs, a questionnaire used by Deniston, Pack, and Beery was chosen for the study (Pack et al., 1985). It was considered to be the most relevant and also the most practical in terms of length. Permission to use this instrument was obtained from the authors.

Several modifications of this instrument were made to increase the ease of response. Part I of the original instrument was designed to be answered by the hospital's chief executive officer and consisted of questions concerning attitude toward the offering of health promotion programs. These questions were combined with Part II so that one individual in the hospital was responsible for completing the entire questionnaire.

Part II consisted of a page of questions that was to be answered for each individual program offered. This was judged to be too time-consuming on the part of the respondent, so these questions were asked in a more general manner and applied to all programs. However, hospitals were given a list of specific programs and asked to check off all programs that they offered. For each of these programs, the questionnaire included target audience categories to be specified. These categories covered the following target



populations: inpatients, outpatients, hospital employees, nonpatients/community members, and corporate/business employees.

Additional questions were included to ascertain the means of coordination of programs within the hospital, cooperation with other community organizations, and types of evaluations used. Hospitals were also asked about special facilities such as jogging trails, weight room, and exercise equipment, and a question concerning the effect of the DRGs was included.

Content validity of the modified instrument was determined by submitting it to a panel of jurors. These jurors consisted of a Health Services Management professor from Western Carolina University, a physician from the Infirmary at Western Carolina University, a Research Methods professor from Western Carolina University, a health educator from a North Carolina hospital, and an education coordinator from a hospital in Tennessee.

Jurors appraised the questions on the basis of clarity and comprehensiveness. Any unclear questions were reworded. Suggestions for additional questions were taken into consideration, and if these were indicated by a majority of the jurors, such questions were added to the instrument.

#### IV. PILOT STUDIES

Ten hospitals in Tennessee were randomly selected to be the study population for the pilot study. This state was chosen because it is a southern state that resembles the target state of North Carolina in location as well as distribution of rural and urban populations. If hospitals in North Carolina had been used, they would have to have been excluded from the final study. Ten hospitals were chosen as this number represents approximately five

percent of the hospitals included in the main study and was deemed to be a sufficient sample.

Names were taken from the *1986 Membership Directory of the Tennessee Hospital Association* (Tennessee Hospital Association, 1986). Both the size and ownership distributions obtained were similar to that of the main study population. The instrument was addressed to Health Educator and mailed to each hospital along with a stamped self-addressed envelope for reply. A cover letter explaining the purpose of the study was included along with the instrument.

When no returns had been received in three weeks time, each hospital was contacted by telephone and the name of the person in charge of health promotion programs was determined. In each case this individual indicated that the survey had not been received. Therefore an additional survey and cover letter was sent to each hospital and addressed to a specific individual in health promotion. Fifty percent of the hospitals responded to this second survey. All of these institutions reported having health promotion programs.

These hospitals were asked approximately how long it took to complete the questionnaire, and they were asked for comments on clarity and ease of response. Any questions that were unclear were reworded. The survey was then prepared in its final form for use in the main study.

## V. EXPERIMENTAL DESIGN

The names of hospitals in North Carolina were obtained from the *North Carolina Hospital Association Directory* (North Carolina Hospital Association, 1988). Additional hospitals in North Carolina who were not members of the Association were determined by consulting the *American Hospital Association Guide to the Health Care Field* (AHA,

1988). All long-term and federally owned hospitals were excluded from the study. The study population thus obtained consisted of one hundred and twenty-eight short-term community hospitals.

Since the pilot study demonstrated that the surveys needed to be addressed to a specific person, an attempt was made to contact each hospital by telephone to obtain the name of the appropriate individual to whom the survey should be directed. Eighty-nine percent of the hospitals were contacted in this manner. The remaining eleven percent either could not be contacted, or the correct person to whom to address the survey could not be determined. These surveys were then addressed to Health Educator in care of each particular hospital.

An article announcing the survey was placed in the November 4, 1988 issue of *Newsline*, the weekly bulletin of the North Carolina Hospital Association. This alerted hospitals to the fact that the surveys would be mailed out shortly.

The initial surveys were sent out on November 11, 1988, with instructions to return the form by November 30, 1988. They were mailed first class to all hospitals in North Carolina included in the parameters of the study. A stamped self-addressed envelope was included for a reply along with a cover letter on Western Carolina University stationery which explained the purpose of the study.

One month after the deadline had passed, an attempt was made to reach nonrespondents by telephone and ask if they had received the survey. All nonrespondents contacted in this manner were sent a second letter and an additional copy of the survey instrument.

A random sample (10) of nonrespondents to the second survey was contacted by telephone to ascertain the reasons for their nonresponse. Parameters such as size, type of

hospital ownership, and whether or not health promotion programs were offered were ascertained in order to assure that the results were not skewed in a particular direction.

## VI. TABULATION AND ANALYSIS OF DATA

Survey responses were grouped for analysis into two major categories according to type of ownership, as previously stated. The percentage of hospitals offering health promotion programs was recorded for each category and displayed in chart form. In order to determine if differences existed between nonprofit and for-profit hospitals, a chi square test was run and a phi coefficient determined. Hospitals were also grouped according to bed size and analyses performed.

Nonprofit and proprietary hospitals were also asked if they planned to offer new programs or discontinue existing ones. Percentages of each type of hospital responding affirmatively were compared by means of chi square analysis.

Attitudes of hospital administrators toward the offering of health promotion programs were determined by having program coordinators rate, on a scale from one to four, the extent to which health promotion was seen as: 1) a public relations or patient recruitment tool, 2) a revenue generator, and 3) a needed community service. Mean scores and ranges were obtained for each hospital type and these were compared utilizing the Mann Whitney U Test.

Nonprofit and proprietary institutions were also compared on the basis of types of programs offered. A chart was prepared for each hospital type which ranked the sixteen programs listed in the survey. In addition, charts were prepared showing the target populations for each type of program.

Coordination of health promotion programs was described in terms of the percentage of hospitals using the departments listed on the questionnaire. Hospitals were

also asked if there was a director for health promotion programming and what percentage of this person's time was spent on such programming. Results for nonprofit and proprietary hospitals were compared by means of chi square analysis and the phi coefficient.

A description of the types of health personnel involved in presenting programs was compiled by indicating the percentage of each utilized by hospitals. This information was made into a chart showing each of the two groups considered with a rank ordering of types of personnel.

Financing for health promotion programs was investigated by considering the following six methods: 1) cost covered entirely by fees to participants, 2) cost covered by daily room charges, 3) grants to the hospital, 4) specific fund-raising activities, 5) a small fee with most of the cost absorbed by the hospital, and 6) any other methods. Charts were prepared for each of these alternatives, and hospital types were compared by means of chi square analysis and the phi coefficient.

The effect of the DRGs on the offering of programs was analyzed by means of responses on three categories; no effect, decrease in programs offered, and increase in programs offered. Percentages were calculated for each response by the two types of hospitals. These results were compared by means of a chi square test.

Methods used to modify behavior were considered for each hospital type, and these results were prioritized and presented in a table. Additionally, procedures for program evaluation were ranked in the same manner.

Respondents were also asked to identify community resources used in planning of programs. These were ranked according to each hospital type and chi square analysis was performed. Methods of attracting clients to programs were considered and analyzed by a similar method.

Lastly, hospitals were asked about specialized facilities available for health promotion, and they were directed to indicate who would have access to such facilities. Results were compiled into tables, and chi square analysis was performed to compare the two hospital types.

In all cases where a chi square test was used to determine if a relationship existed between variables, the expected frequency was based on the percentage of total hospitals responding affirmatively to a particular question. The observed frequency was the percentage of positive responses for each hospital type. Calculations were based on the formula given below (Munro, Visintainer, and Page, 1986):

$$x^2 = \sum \frac{(fo-fe)^2}{fe}$$

fo = observed frequency

fe = expected frequency

$\Sigma$  = overall sum, for all cells

Significance at the .01 or .05 level was calculated by computer, and this figure is given as p in all tables. Any value for p that was greater than .05 was not considered significant.

After a value for  $x^2$  was calculated, the strength of a significant relationship was determined by means of the phi coefficient. The formula for the phi coefficient is (Munro et al., 1986):

$$\phi = \sqrt{\frac{x^2}{n}}$$

n = the total number of cases

The phi coefficient is only interpreted where the value of  $x^2$  reaches a significant probability level. Values obtained range from 0 to 1, with 0 indicating no correlation and 1

indicating a perfect correlation. The value of phi indicates the strength of association between the variables under consideration.

Cramer's V is a modification of the phi coefficient and is employed with contingency tables that are larger than 2 x 2. A correction factor is used so that values obtained are between 0 and 1. V is calculated as follows (Burns and Grove, 1987):

$$V = \sqrt{\frac{\chi^2}{N(L-1)}}$$

N = total frequency of all cells

L = the smaller of either the number of columns or rows

It also indicates the strength of the association between two variables.

A sample table is presented here in order to clarify for the reader the information that is portrayed. Each line of such a table represents an abbreviated form of a 2 x 2 table used for chi square analysis. As an example, the first line of the sample table which reads "Hospital Employees" indicates the number of hospitals giving this group access to specialized facilities. This is the dependent variable. The independent variable is hospital type, represented by the two categories "Nonprofit" and "Proprietary Hospitals."

Column 2 which is labelled "Frequency For All Hospitals" gives the number and percentage of all hospitals responding positively to this question. This percentage can be used to calculate expected frequencies for each hospital type, based on the number of respondents, N, which is given at the bottom of each column.

Columns 3 and 4 give the observed frequencies for nonprofit hospitals and proprietary hospitals respectively. The chi square, which is calculated by comparing observed to expected frequencies is given in column four which is labelled "Chi Square." The significance is given in column 5, labelled "p." This number must be less than .05 in order for the chi square to be regarded as significant.

SAMPLE TABLE

INDIVIDUALS GIVEN ACCESS TO HEALTH PROMOTION FACILITIES

| Method             | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|--------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Hospital Employees | 35 (43.8%)                     | 32 (48.8%)                           | 3 (23.1%)                              | 1.786         | 0.181 |
| Fee-paying Members | 15 (18.8%)                     | 13 (19.4%)                           | 2 (15.4%)                              | 0.000         | 1.000 |
| General Public     | 20 (25.0%)                     | 18 (26.8%)                           | 2 (15.4%)                              | 0.276         | 0.600 |
| Other              | 3 ( 3.8%)                      | 3 ( 4.5%)                            | 0 ( 0.0%)                              | 0.000         | 1.000 |

N = 80                      N = 67                      N = 13

Note: This table is presented here for demonstration purposes only. It is later presented in the text as Table 60 and the results explained thereafter.



Thus each line of such a table should be regarded as an abbreviated 2 x 2 table.

Wherever these appear in the text, the reader is referred back to this explanation.

All other tables used for chi square analysis present the number responding positively for all hospitals and the positive responses for each of the two hospital types. Negative responses can be calculated from the total N, represented for each group at the bottom of each table. These were omitted from the tables for the sake of simplicity.

## VII. SUMMARY

The status of health promotion programs in North Carolina hospitals was investigated by sending a survey to all short-term community hospitals in the state. The instrument used was a modification of one previously utilized in Michigan. It was revalidated by means of a panel of jurors and pilot testing in an adjacent state.

Key elements considered necessary to the determination of status were the following: types of programs offered, target audiences for these programs, attitudes of administrators toward offering programs, organization of programs within the hospital structure, methods of financing, coordination with other community organizations, types of personnel involved in teaching, and evaluation methods used. Descriptive statistics were calculated for nonprofit and for proprietary hospitals, and then any significant differences determined by means of chi square analysis. Any differences thus discovered indicated the influence of type of ownership on the offering of health promotion programs.

The influence of the DRG method of reimbursement of hospital costs was determined by examining responses from both types of hospitals. This information helped to describe current trends in health promotion. All of these statistics indicated the degree of involvement of North Carolina hospitals in health promotion.

## CHAPTER IV

### ANALYSIS OF THE DATA

#### I. INTRODUCTION

This chapter contains an analysis of the data which was collected from a survey mailed to the one hundred and twenty-eight short-term community hospitals in the state of North Carolina. The purpose of the survey was to determine the current status of health promotion programs in North Carolina hospitals by considering certain key elements. Those elements chosen were: number and types of programs offered, target audiences, coordination of programs within the hospital, planning with other community organizations, methods of financing, types of health personnel involved, evaluation techniques used, attitudes toward offering programs, and types of facilities available.

The influence of the type of hospital ownership on each of these key elements was considered by dividing the population into two groups: nonprofit hospitals and proprietary institutions. For purposes of this analysis, hospitals owned by state and local government were considered nonprofit hospitals.

The data was processed using the services of Western Carolina University Computer Center. All data was coded into files on the Vax or Mainframe, and analysis was done using the Statistical Package for the Social Sciences (SPSS-X).

This chapter is organized into the following sections: 1) introduction , 2) profile of the study population, 3) distribution of hospitals offering health promotion programs, 4) types of programs offered and target audiences, 5) management and organization of health promotion programs, 6) staff utilization for health promotion programming, 7) financing for health promotion programs, 8) methods used to modify behavior and assessments of results, 9) planning for attracting clients to health promotion programs,

10) specialized facilities for health promotion programs, 11) interpretation of the data, and 12) summary.

## II. STUDY POPULATION DESCRIPTION

The names of hospitals in North Carolina were obtained from the *North Carolina Hospital Association Directory* (North Carolina Hospital Association, 1988). Additional hospitals in North Carolina who were not members of the Association were determined by consulting the *American Hospital Association Guide to the Health Care Field* (American Hospital Association, 1988). All long-term and federally owned hospitals were excluded from the study. The study population thus obtained consisted of one hundred and twenty-eight hospitals, with an ownership distribution as shown in Table 1. The size distribution is shown in Table 2.

TABLE 1  
DISTRIBUTION OF HOSPITALS BY TYPE OF OWNERSHIP [N = 128]

| Type of Ownership              | Number |
|--------------------------------|--------|
| Non-government, Not-for-Profit | 54     |
| State or Local Government      | 48     |
| Proprietary                    | 26     |

TABLE 2  
DISTRIBUTION OF HOSPITALS BY SIZE [N = 128]

| Bed Size | Number |
|----------|--------|
| 0-99     | 45     |
| 100-199  | 45     |
| 200-299  | 11     |
| 300-399  | 10     |
| 400-499  | 7      |
| Over 500 | 10     |

From the pilot study it was determined that the surveys needed to be addressed to a specific individual at each hospital. Therefore, an attempt was made to contact each hospital by telephone, and names were obtained for eighty-nine percent of the hospitals . For the remaining eleven percent, surveys were addressed to Health Educator in care of each particular hospital.

The initial surveys were sent out on November 11,1988, with instructions to return the form by November 30,1988. One month after this deadline, sixty surveys had been returned, representing forty-six percent of the sample population. In order to boost the percentage of returns, an attempt was made to reach the nonrespondents by telephone and ask if they had received the survey. Fifty-one hospitals, or seventy-two percent of the nonrespondents, were contacted in this manner and were sent another copy of the

survey instrument. Twenty additional surveys were received, representing twenty-eight percent of the original nonrespondents.

Eighty hospitals in all completed the survey, which represented a return rate of 62.5 percent. The distribution of the study sample by type of hospital ownership is shown in Table 3. A slightly higher percentage of returns was obtained for the proprietary hospitals. The percentage of returns according to hospital size appears in Table 4.

The geographic distribution of hospitals and the percent of response for each area is given in Table 5. While the greatest number of hospitals were located in the central or piedmont section, the percent of returns for each section is comparable. The slightly higher percent of returns from the western part of the state may be due to the sponsoring institution for the survey being located in that part of the state.

TABLE 3  
RETURN RATE FOR HOSPITALS ACCORDING TO TYPE OF OWNERSHIP

| Hospital Type | Number Returned | Percent Returned |
|---------------|-----------------|------------------|
| Nonprofit     | 67              | 65.6             |
| Proprietary   | 13              | 50.0             |
| All           | 80              | 62.5             |

TABLE 4  
RETURN RATE FOR HOSPITALS ACCORDING TO SIZE [N = 80]

| Bed Size | Number Returned | Percent Returned |
|----------|-----------------|------------------|
| 0-99     | 29              | 64.4             |
| 100-199  | 25              | 55.6             |
| 200-299  | 9               | 81.8             |
| 300-399  | 5               | 50.0             |
| 400-499  | 4               | 57.1             |
| Over 500 | 8               | 80.0             |

TABLE 5  
DISTRIBUTION OF HOSPITALS BY GEOGRAPHIC AREA [N = 128]

| Region  | Number of Hospitals | Number Returned | Percent Returned |
|---------|---------------------|-----------------|------------------|
| East    | 33                  | 20              | 60.6             |
| Central | 67                  | 40              | 59.7             |
| West    | 28                  | 20              | 71.4             |

A random sample (10) of nonrespondents to the second survey was contacted by telephone to ascertain the reasons for their nonresponse and to determine if they did offer health promotion programs. The size distribution of the nonrespondents and the percent offering programs is shown in Table 6 . The distribution of nonrespondents according to hospital type is demonstrated in Table 7. By looking at the percentages of hospitals offering health promotion programs, it was determined that the nonrespondents did not differ significantly from the respondents and that lack of health promotion programs was not a significant reason for nonresponse. The reasons given for not responding included not receiving the survey , not responding to any surveys, and lack of time.

TABLE 6  
DISTRIBUTION OF NONRESPONDENTS BY HOSPITAL SIZE  
WITH PERCENT OFFERING PROGRAMS

| Bed Size | Frequency | Percent With Programs |
|----------|-----------|-----------------------|
| 0-99     | 6         | 83.3                  |
| 100-199  | 3         | 100.0                 |
| 200-299  | 0         | 0.0                   |
| 300-399  | 1         | 100.0                 |
| All      | 10        | 90.0                  |

TABLE 7  
DISTRIBUTION OF NONRESPONDENTS BY HOSPITAL TYPE  
WITH PERCENT OFFERING PROGRAMS

| Hospital Type | Frequency | Percent With Programs |
|---------------|-----------|-----------------------|
| Nonprofit     | 8         | 87.5                  |
| Proprietary   | 2         | 100.0                 |
| All           | 10        | 90.0                  |

### III. DISTRIBUTION OF HOSPITALS OFFERING HEALTH PROMOTION PROGRAMS

When asked if they currently offered health promotion programs, 96.3 percent of the respondents (80) answered yes. The percentages for proprietary and nonprofit hospitals are given in Table 8. Chi square analysis and the phi coefficient indicated that hospital ownership does not appear to influence the offering of health promotion programs. In addition, there was no significant difference in the percentage of hospitals offering health promotion programs if size was considered as a factor, as shown in Table 9.



TABLE 8

DISTRIBUTION OF HOSPITALS OFFERING HEALTH PROMOTION PROGRAMS  
ACCORDING TO TYPE OF OWNERSHIP

| Region      | Number Responding | Number With Programs | Percent With Programs |
|-------------|-------------------|----------------------|-----------------------|
| Nonprofit   | 67                | 64                   | 95.5                  |
| Proprietary | 13                | 13                   | 100.0                 |
| All         | 80                | 77                   | 96.3                  |

$\chi^2 = 0.000$ ,  $p > .05$ ,  $\Phi = 0.0870$ .

TABLE 9

DISTRIBUTION OF HOSPITALS OFFERING HEALTH PROMOTION PROGRAMS  
ACCORDING TO BED SIZE

| Region   | Number Responding | Number With Programs | Percent With Programs |
|----------|-------------------|----------------------|-----------------------|
| 0-99     | 29                | 27                   | 93.1                  |
| 100-199  | 25                | 24                   | 96.0                  |
| 200-299  | 9                 | 9                    | 100.0                 |
| 300-399  | 5                 | 5                    | 100.0                 |
| 400-499  | 4                 | 4                    | 100.0                 |
| Over 500 | 8                 | 8                    | 100.0                 |
| All      | 80                | 77                   | 96.3                  |

$\chi^2 = 1.813$ ,  $p > .05$ , Cramer's  $V = 0.151$ .

When asked if they planned to offer any new programs, 75.3 percent of all hospitals responding answered yes (See Table 10). Both nonprofit and proprietary hospitals appeared equally likely to offer new programs, as a chi square indicated no significant differences between the groups. Conversely, when asked if they planned to discontinue any existing programs, 90.8 percent of all hospitals responded no. Proprietary hospitals had a slightly higher percentage (23.5) answering in the affirmative, but a chi square analysis showed that these differences were not statistically significant, as seen in Table 11. The phi coefficient showed no relationship between either offering new programs or discontinuing old ones and type of hospital ownership.

TABLE 10  
NUMBER OF HOSPITALS PLANNING TO OFFER NEW PROGRAMS

| Type        | Number Responding | Positive Responses | Percent |
|-------------|-------------------|--------------------|---------|
| Nonprofit   | 64                | 48                 | 75.0    |
| Proprietary | 13                | 10                 | 76.9    |
| All         | 77                | 58                 | 75.3    |

$\chi^2 = 0.000$ ,  $p > .05$ ,  $\Phi = 0.017$ .

TABLE 11  
HOSPITALS PLANNING TO DISCONTINUE EXISTING PROGRAMS

| Type        | Number Responding | Positive Responses | Percent |
|-------------|-------------------|--------------------|---------|
| Nonprofit   | 63                | 4                  | 6.3     |
| Proprietary | 13                | 3                  | 23.1    |
| All         | 76                | 7                  | 9.2     |

$\chi^2 = 1.883$ ,  $p > .05$ ,  $\Phi = 0.218$ .

In order to determine possible trends in health promotion programming, hospitals were asked if any programs had been discontinued over the last five years. Affirmative responses were somewhat higher to this than to the previous question, with 31.6 percent of all hospitals answering yes. Again, type of ownership did not have any effect on whether or not programs were discontinued, as seen in Table 12.

TABLE 12  
HOSPITALS WHO HAVE DISCONTINUED PROGRAMS  
OVER THE LAST FIVE YEARS

| Type        | Number Responding | Positive Responses | Percent |
|-------------|-------------------|--------------------|---------|
| Nonprofit   | 66                | 22                 | 33.3    |
| Proprietary | 13                | 3                  | 23.1    |
| All         | 79                | 25                 | 31.6    |

$$\chi^2 = 0.160, p > .05, \text{Phi} = 0.082.$$

In order to ascertain the attitudes of hospital administrators toward the offering of health promotion programs, program coordinators were asked for their perceptions and rated the extent to which health promotion programs were seen as: 1) a public relations or patient recruitment tool, 2) a revenue generator, and 3) a needed community service. The range obtained for all three was from one to four, with a score of four representing the upper limit and one the lower limit. As a public relations tool, the mean score for all hospitals was 3.237. Similar scores were obtained for nonprofit and proprietary

hospitals, and a Mann Whitney U Test indicated that the difference in scores was not significant. (see Table 13 below.)

The extent to which health promotion programs were seen as revenue generators was considerably less, since the mean score for all hospitals was 1.949, as indicated in Table 14. A U score demonstrated that there were no significant differences in the ranking obtained for nonprofit hospitals as opposed to proprietary institutions. Neither type of hospital appeared to consider health promotion programs primarily as revenue generators.

TABLE 13  
RATING OF HEALTH PROMOTION PROGRAMS AS A  
PUBLIC RELATIONS TOOL

| Hospital Type | Number Responding | Mean  | Standard Deviation |
|---------------|-------------------|-------|--------------------|
| Nonprofit     | 63                | 3.254 | 0.861              |
| Proprietary   | 12                | 3.083 | 1.165              |
| All           | 75                | 3.237 | 0.907              |

U = 362.0,  $p > 0.05$ .

TABLE 14

## RATING OF HEALTH PROMOTION PROGRAMS AS REVENUE GENERATORS

| Hospital Type | Number Responding | Mean  | Standard Deviation |
|---------------|-------------------|-------|--------------------|
| Nonprofit     | 65                | 1.892 | 0.954              |
| Proprietary   | 12                | 2.167 | 1.267              |
| All           | 77                | 1.949 | 1.005              |

$U = 352.0, p > 0.05.$

Administrators' views toward the offering of health promotion programs as a needed community service were also determined. A mean score of 3.038 was obtained for the total number of responding hospitals, and this appeared to indicate an emphasis on providing programs to meet the needs of the community. Responses for nonprofit and proprietary hospitals did not differ significantly, as seen in Table 15. The U Score was not significant at the 0.05 level.

TABLE 15  
RATING OF HEALTH PROMOTION PROGRAMS AS A NEEDED  
COMMUNITY SERVICE

| Hospital Type | Number Responding | Mean  | Standard Deviation |
|---------------|-------------------|-------|--------------------|
| Nonprofit     | 65                | 3.015 | 0.927              |
| Proprietary   | 12                | 3.083 | 1.084              |
| All           | 77                | 3.038 | 0.946              |

U = 365.5,  $p > 0.05$ .

#### IV. TYPES OF PROGRAMS OFFERED AND TARGET AUDIENCES

A list of sixteen widely offered health promotion programs was included in the survey, and respondents were asked to check the appropriate box if a program was offered for a particular target audience. Additional space was provided at the bottom of the list so that other programs could be entered. Multiple response analysis was used to determine the most frequently offered programs. Table 16 contains a prioritized list of programs offered by responding hospitals along with the percentage of institutions offering each particular program. Tables 17 and 18 show the programs offered by nonprofit and proprietary hospitals respectively.

TABLE 16

TYPES OF HEALTH PROMOTION PROGRAMS OFFERED WITH PERCENTAGE  
OF HOSPITALS OFFERING EACH [N = 77]

| Type              | No. of Hospitals<br>Offering | Percent |
|-------------------|------------------------------|---------|
| First Aid/CPR     | 74                           | 92.5    |
| AIDS              | 65                           | 81.3    |
| Nutrition         | 53                           | 66.3    |
| Prenatal          | 52                           | 65.0    |
| Smoking Cessation | 52                           | 65.0    |
| Breast Self-exam  | 47                           | 58.8    |
| Stress Management | 46                           | 57.5    |
| Weight Control    | 45                           | 56.3    |
| Hypertension      | 33                           | 41.3    |
| Postnatal         | 33                           | 41.3    |
| Physical Fitness  | 27                           | 33.8    |
| Aerobic Dance     | 26                           | 32.5    |
| Alcohol Abuse     | 18                           | 22.5    |
| Drug Abuse        | 18                           | 22.5    |
| Elder Fitness     | 11                           | 13.8    |
| Family Planning   | 9                            | 11.3    |



TABLE 17  
TYPES OF HEALTH PROMOTION PROGRAMS OFFERED  
BY NONPROFIT HOSPITALS [N = 64]

| Type              | No. of Hospitals<br>Offering | Percent |
|-------------------|------------------------------|---------|
| First Aid/CPR     | 62                           | 92.5    |
| AIDS              | 54                           | 79.1    |
| Nutrition         | 46                           | 68.7    |
| Prenatal          | 46                           | 68.7    |
| Smoking Cessation | 45                           | 67.2    |
| Weight Control    | 39                           | 58.2    |
| Stress Management | 39                           | 58.2    |
| Breast Self-exam  | 38                           | 56.7    |
| Hypertension      | 31                           | 46.3    |
| Postnatal         | 30                           | 44.8    |
| Physical Fitness  | 26                           | 38.8    |
| Aerobic Dance     | 19                           | 28.3    |
| Alcohol Abuse     | 16                           | 23.9    |
| Drug Abuse        | 15                           | 22.4    |
| Elder Fitness     | 10                           | 14.9    |
| Family Planning   | 8                            | 11.9    |

TABLE 18  
TYPES OF HEALTH PROMOTION PROGRAMS OFFERED  
BY PROPRIETARY HOSPITALS [N = 13]

| Type              | No. of Hospitals<br>Offering | Percent |
|-------------------|------------------------------|---------|
| First Aid/CPR     | 12                           | 92.3    |
| AIDS              | 11                           | 84.6    |
| Breast Self-exam  | 9                            | 69.2    |
| Nutrition         | 7                            | 53.8    |
| Smoking Cessation | 7                            | 53.8    |
| Aerobic Dance     | 7                            | 53.8    |
| Stress Management | 7                            | 53.8    |
| Prenatal          | 6                            | 46.2    |
| Weight Control    | 6                            | 46.2    |
| Drug Abuse        | 3                            | 23.1    |
| Postnatal         | 3                            | 23.1    |
| Hypertension      | 2                            | 15.4    |
| Alcohol Abuse     | 2                            | 15.4    |
| Physical Fitness  | 2                            | 7.7     |
| Family Planning   | 1                            | 7.7     |
| Elder Fitness     | 1                            | 7.7     |

TABLE 19

SUMMARY OF HEALTH PROMOTION PROGRAMS OFFERED  
BY NONPROFIT AND PROPRIETARY HOSPITALS [N = 77]

| Target Audience   | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|-------------------|----------------------------|------------------------------|
| First Aid/CPR     | 62 (92.5%)                 | 12 (92.3%)                   |
| AIDS              | 54 (79.1%)                 | 11 (84.6%)                   |
| Nutrition         | 46 (68.7%)                 | 7 (53.8%)                    |
| Prenatal          | 46 (68.7%)                 | 6 (46.2%)                    |
| Smoking Cessation | 45 (67.2%)                 | 7 (53.8%)                    |
| Breast Self-exam  | 39 (58.2%)                 | 9 (69.2%)                    |
| Stress Management | 39 (58.2%)                 | 7 (53.8%)                    |
| Weight Control    | 38 (56.7%)                 | 6 (46.2%)                    |
| Hypertension      | 31 (46.3%)                 | 2 (15.4%)                    |
| Postnatal         | 30 (44.8%)                 | 3 (23.1%)                    |
| Physical Fitness  | 26 (38.8%)                 | 2 (15.4%)                    |
| Aerobic Dance     | 19 (28.3%)                 | 7 (53.8%)                    |
| Alcohol Abuse     | 16 (23.9%)                 | 2 (15.4%)                    |
| Drug Abuse        | 15 (22.4%)                 | 3 (23.1%)                    |
| Elder Fitness     | 10 (14.9%)                 | 1 ( 7.7%)                    |
| Family Planning   | 8 (11.9%)                  | 1 ( 7.7%)                    |

By looking at Table 16, it can be seen that the top three programs were First Aid/CPR, offered by 92.5 percent of all hospitals, AIDS education, which was offered by 81.3 percent of hospitals, and nutrition, which was offered by 66.3 percent of the respondents. Summary table 19 shows that breast self-exam was offered by 69.2 percent of the responding proprietary hospitals, while it was offered by only 56.7 percent of the nonprofit hospitals. Smoking cessation and stress management were offered by at least 50 percent of both types of hospitals. Prenatal education and weight control were offered by over 45 percent of all hospitals.

Elder fitness and family planning were the least offered programs, as only 13.8 percent of all hospitals offered the first, and 11.3 percent offered the second. These were offered least by both proprietary and nonprofit institutions.

The most apparent differences between nonprofit and proprietary hospitals occurred in the offering of aerobic dance, hypertension, postnatal , and physical fitness programs. Proprietary hospitals were much more likely to offer aerobic dance (53.8 percent) than were nonprofit hospitals (28.3 percent). Conversely, hypertension, physical fitness, and postnatal programs were much more likely to be offered by nonprofit institutions. Hypertension programs were offered by only 15.4 percent of proprietary hospitals, while 46.3 percent of nonprofit institutions had such programs. Physical fitness was offered by 38.8 percent of nonprofit hospitals, while it was only offered by 7.7 percent of the responding proprietary institutions. Additionally, postnatal programs were given by 44.8 percent of nonprofit hospitals as opposed to 23.1 percent of proprietary institutions.

After considering the types of programs offered, the target audiences were ascertained. For each of the sixteen types of programs, respondents were asked to indicate if the program was offered for inpatients, outpatients, nonpatients or community

members, employees, or corporate employees at their place of business. This information is shown in Tables 20 through 35. Whenever N is less than 64 for nonprofit hospitals or 13 for proprietary hospitals, this indicates that data was not obtained for all hospitals. Table 20 shows the target audiences for First Aid/CPR programs.

TABLE 20  
TARGET AUDIENCES FOR FIRST AID/CPR PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 9 (14.8%)                  | 0 ( 0.0%)                    |
| Outpatients         | 8 (13.1%)                  | 0 ( 0.0%)                    |
| Nonpatients         | 27 (44.3%)                 | 6 ( 50.0%)                   |
| Hospital Employees  | 60 (96.8%)                 | 12 (100.0%)                  |
| Corporate Employees | 7 (11.5%)                  | 4 ( 33.3%)                   |
|                     | N = 62                     | N = 12                       |

As Table 20 demonstrates, proprietary hospitals did not offer First Aid/CPR programs for inpatients or outpatients, whereas 14.8 percent of nonprofit hospitals offered programs for inpatients, and 13.1 percent did so for outpatients. Generally, however, First Aid/CPR programs were aimed at hospital employees, as 96.8 percent of nonprofit hospitals and 100 percent of the responding proprietary hospitals offered such programs. Proprietary hospitals were more likely to offer CPR for corporate audiences,

as 33.3 percent of these hospitals had programs for this group as opposed to 11.5 percent of the nonprofit hospitals.

Table 21 shows the distribution of target audiences for AIDS education programs. Most AIDS programs were aimed at hospital employees, as 96.2 percent of the nonprofit hospitals offering programs did so for employees, and 100 percent of the proprietary hospitals had AIDS education for this same audience. AIDS programs were also aimed at nonpatients or community members, as 32.1 percent of nonprofit hospitals served this population, and 45.5 percent of the proprietary hospitals offering AIDS education did so for nonpatients.

TABLE 21  
TARGET AUDIENCES FOR AIDS PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 10 (18.9%)                 | 1 ( 9.1%)                    |
| Outpatients         | 6 (11.3%)                  | 0 ( 0.0%)                    |
| Nonpatients         | 17 (32.1%)                 | 5 ( 45.5%)                   |
| Hospital Employees  | 52 (96.2%)                 | 11 (100.0%)                  |
| Corporate Employees | 6 (11.3%)                  | 1 ( 9.1%)                    |
|                     | N = 54                     | N = 11                       |

Nutrition was the third most popular type of program offered, and it was most often offered on an inpatient basis, as seen from Table 22. Of the 46 nonprofit hospitals

offering nutrition programs, 29 or 63.0 percent offered such programs for inpatients, while 7 hospitals or 100 percent of the proprietary institutions with nutrition programs offered this service to inpatients. Fifty-two percent of the nonprofit hospitals had nutrition programs for outpatients, and 100 percent of the proprietary hospitals who had nutrition programs offered these to outpatients. Nonpatients were served by 54.3 percent of the nonprofit hospitals and 100 percent of the proprietary hospitals. Over 50 percent of both types of hospitals offered nutrition programs for employees.

TABLE 22  
TARGET AUDIENCES FOR NUTRITION PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 29 (63.0%)                 | 7 (100.0%)                   |
| Outpatients         | 24 (52.2%)                 | 7 (100.0%)                   |
| Nonpatients         | 25 (54.3%)                 | 4 ( 57.1%)                   |
| Hospital Employees  | 27 (58.7%)                 | 4 ( 57.1%)                   |
| Corporate Employees | 7 (15.2%)                  | 1 ( 14.3%)                   |
|                     | N = 46                     | N = 7                        |

Prenatal education, as seen from Table 23, was primarily offered on an outpatient basis. Out of 46 nonprofit hospitals offering prenatal programs, 68.9 percent, or 31 hospitals, offered it to nonpatients and community members, while 66.7 percent of the programs offered by proprietary hospitals were given for this group. Nonpatients were

served by 58.7 percent of the nonprofit hospitals, but by only 33.3 percent of the proprietary hospitals. Employees were slightly more likely to be served by proprietary hospitals, as 33.3 percent had programs for this group, as opposed to only 19.6 percent of the nonprofit hospitals.

TABLE 23  
TARGET AUDIENCES FOR PRENATAL PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 16 (35.6%)                 | 1 ( 16.7%)                   |
| Outpatients         | 31 (68.9%)                 | 4 ( 66.7%)                   |
| Nonpatients         | 27 (58.7%)                 | 2 ( 33.3%)                   |
| Hospital Employees  | 9 (19.6%)                  | 2 ( 33.3%)                   |
| Corporate Employees | 2 ( 4.3%)                  | 0 ( 0.0%)                    |
|                     | N = 46                     | N = 6                        |

Smoking cessation programs were chiefly offered to employees and nonpatients, as seen by Table 24. Nonprofit hospitals directed 82.2 percent of their programs to employees and 64.4 percent to nonpatients, while 42.9 percent of the proprietary hospitals gave programs for employees and 100 percent had programs for nonpatients. Nonprofit hospitals also served outpatients, with 28.9 percent of hospitals participating, whereas proprietary hospitals had no programs for this group. Both types of hospitals held a small percentage of programs for inpatients and corporate employees.



TABLE 24  
TARGET AUDIENCES FOR SMOKING CESSATION PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 9 (20.0%)                  | 1 ( 14.3%)                   |
| Outpatients         | 13 (28.9%)                 | 0 ( 0.0%)                    |
| Nonpatients         | 29 (64.4%)                 | 7 (100.0%)                   |
| Hospital Employees  | 37 (82.2%)                 | 3 ( 42.9%)                   |
| Corporate Employees | 12 (26.7%)                 | 1 ( 14.3%)                   |
|                     | N = 45                     | N = 7                        |

Target audiences for breast self-exam programs, as seen in Table 25, included employees, nonpatients, outpatients, inpatients, and, to a small extent, corporate employees. The largest number of programs were for hospital employees, with 54.1 percent of nonprofit hospitals offering programs for this group, and 77.8 percent of proprietary hospitals serving this population. Nonpatients were served by 45.9 percent of participating nonprofit hospitals and 55.6 percent of proprietary hospitals. Inpatients and outpatients were served almost equally by nonprofit hospitals, with 54.1 percent and 51.4 percent respectively, but proprietary hospitals had fewer programs for these groups, with 11.1 percent and 44.4 percent respectively.

TABLE 25  
TARGET AUDIENCES FOR BREAST SELF-EXAMINATION PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 21 (54.1%)                 | 1 ( 11.1%)                   |
| Outpatients         | 20 (51.4%)                 | 4 ( 44.4%)                   |
| Nonpatients         | 18 (45.9%)                 | 5 ( 55.6%)                   |
| Hospital Employees  | 21 (54.1%)                 | 7 ( 77.8%)                   |
| Corporate Employees | 7 (16.2%)                  | 0 ( 0.0%)                    |
|                     | N = 38                     | N = 9                        |

Stress management programs were largely geared to hospital employees, as seen in Table 26. Considering those hospitals offering this type of program, 92.3 percent of nonprofit hospitals and 85.7 percent of proprietary hospitals had organized sessions for employees. Nonpatients were served by 51.3 percent of nonprofit hospitals and 57.1 percent of the for-profit institutions. Inpatients, outpatients, and corporate employees were involved to a lesser extent.

TABLE 26  
TARGET AUDIENCES FOR STRESS MANAGEMENT PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 7 (17.9%)                  | 1 ( 14.3%)                   |
| Outpatients         | 13 (33.3%)                 | 0 ( 14.3%)                   |
| Nonpatients         | 20 (51.3%)                 | 4 ( 57.1%)                   |
| Hospital Employees  | 36 (92.3%)                 | 6 ( 85.7%)                   |
| Corporate Employees | 9 (23.1%)                  | 1 ( 14.3%)                   |
|                     | N = 39                     | N = 7                        |

Hospital employees were also an important target group for weight control programs, as demonstrated in Table 27. They were served by 74.4 percent of responding nonprofit hospitals and 50.0 percent of proprietary hospitals. In addition, 64.1 percent of nonprofit hospitals and 100 percent of the responding proprietary hospitals had programs for nonpatients. Outpatients, inpatients, and corporate employees did not have as many programs offered for them.

TABLE 27  
TARGET AUDIENCES FOR WEIGHT CONTROL PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 8 (20.5%)                  | 1 ( 16.7%)                   |
| Outpatients         | 15 (38.5%)                 | 2 ( 33.3%)                   |
| Nonpatients         | 25 (64.1%)                 | 6 (100.0%)                   |
| Hospital Employees  | 29 (74.4%)                 | 3 ( 50.0%)                   |
| Corporate Employees | 11 (28.2%)                 | 2 ( 33.3%)                   |
|                     | N = 39                     | N = 6                        |

Hypertension programs were more likely to be offered for nonpatients, as illustrated by Table 28. Only 2 proprietary hospitals responded that they had hypertension programs, and these were directed at nonpatients. More nonprofit hospitals had such programs, however, and 71.0 percent of these were given for nonpatients with 53.3 percent offered for hospital employees. Inpatients were served by 56.7 percent of the participating nonprofit hospitals.

TABLE 28  
TARGET AUDIENCES FOR HYPERTENSION PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 17 (56.7%)                 | 0 ( 0.0%)                    |
| Outpatients         | 13 (43.3%)                 | 0 ( 0.0%)                    |
| Nonpatients         | 22 (71.0%)                 | 2 (100.0%)                   |
| Hospital Employees  | 16 (53.3%)                 | 0 ( 0.0%)                    |
| Corporate Employees | 7 (23.3%)                  | 0 ( 0.0%)                    |
|                     | N = 31                     | N = 2                        |

Inpatients were the main target group for postnatal education programs. While only 23.1 percent of the proprietary hospitals offered postnatal education, the majority of this group (66.7 percent) offered such programs for inpatients ( see Table 29). Of the thirty nonprofit hospitals responding affirmatively, 23 or 79.3 percent directed their programs at inpatients. Outpatients and nonpatients were served by 44.8 percent and 46.7 percent of nonprofit hospitals respectively.

TABLE 29  
TARGET AUDIENCES FOR POSTNATAL PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 23 (79.3%)                 | 2 ( 66.7%)                   |
| Outpatients         | 13 (44.8%)                 | 1 ( 33.3%)                   |
| Nonpatients         | 14 (46.7%)                 | 0 ( 0.0%)                    |
| Hospital Employees  | 5 (17.2%)                  | 1 ( 33.0%)                   |
| Corporate Employees | 1 ( 3.3%)                  | 0 ( 0.0%)                    |
|                     | N = 30                     | N = 3                        |

Physical fitness programs were only reported to be offered by one proprietary hospital as opposed to 26 nonprofit hospitals ( see Table 30). The one proprietary hospital offered its programs to nonpatients only, whereas 73.1 percent of the nonprofit hospitals offered programs to employees and 46.2 percent to nonpatients. Outpatients were served by 38.5 percent of the responding nonprofit hospitals. Corporate employees, not served at all by proprietary institutions, received programs from 34.6 percent of the nonprofit hospitals.

TABLE 30  
TARGET AUDIENCES FOR PHYSICAL FITNESS PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 5 (19.2%)                  | 0 ( 0.0%)                    |
| Outpatients         | 10 (38.5%)                 | 0 ( 0.0%)                    |
| Nonpatients         | 12 (46.2%)                 | 1 (100.0%)                   |
| Hospital Employees  | 19 (73.1%)                 | 0 ( 0.0%)                    |
| Corporate Employees | 9 (34.6%)                  | 0 ( 0.0%)                    |
|                     | N = 26                     | N = 1                        |

Proprietary and nonprofit hospitals both provided aerobic dance programs for hospital employees, as seen in Table 31. Sixteen out of nineteen (84.2 percent) nonprofit institutions offered programs for employees, and six out of seven responding proprietary institutions (85.7 percent) had programs for this group. The next largest group was nonpatients, served by 47.4 percent of the responding nonprofit institutions and 42.9 percent of proprietary hospitals. Corporate employees, inpatients, and outpatients were served to a small extent by nonprofit institutions, but not at all by proprietary hospitals.

TABLE 31  
TARGET AUDIENCES FOR AEROBIC DANCE PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 2 (10.5%)                  | 0 ( 0.0%)                    |
| Outpatients         | 2 (10.5%)                  | 0 ( 0.0%)                    |
| Nonpatients         | 9 (47.4%)                  | 1 ( 42.9%)                   |
| Hospital Employees  | 16 (84.2%)                 | 6 ( 85.7%)                   |
| Corporate Employees | 2 (10.5%)                  | 0 ( 0.0%)                    |
|                     | N = 19                     | N = 7                        |

Few hospitals of either type offered alcohol abuse programs, but of those offered, inpatients received the greatest share. Only 2 for-profit institutions had programs, as seen in Table 32, but both offered programs for inpatients and nonpatients. Inpatients and employees were served by 62.5 percent and 43.8 percent of the responding nonprofit hospitals, respectively. Nonpatients, outpatients, and corporate employees received programs to a lesser extent.



TABLE 32  
TARGET AUDIENCES FOR ALCOHOL ABUSE PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 10 (62.5%)                 | 2 (100.0%)                   |
| Outpatients         | 5 (31.3%)                  | 1 ( 50.0%)                   |
| Nonpatients         | 5 (31.3%)                  | 2 (100.0%)                   |
| Hospital Employees  | 7 (43.8%)                  | 0 ( 0.0%)                    |
| Corporate Employees | 3 (18.8%)                  | 0 ( 0.0%)                    |
|                     | N = 16                     | N = 2                        |

When drug abuse programs were offered, they were given chiefly for inpatient and employee groups. Table 33 shows that 60.0 percent of the responding nonprofit hospitals and 66.7 percent of the proprietary hospitals offered such programs to inpatients. For employee groups, 60.0 percent of the nonprofit and 66.7 percent of the for profit hospitals offered programs. Of the three for-profit hospitals responding, two had programs for nonpatients and one had a program for outpatients. Nonprofit hospitals also served nonpatients and outpatients with 26.7 percent and 33.3 percent respectively of the responding hospitals.

TABLE 33  
TARGET AUDIENCES FOR DRUG ABUSE PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 9 (60.0%)                  | 2 ( 66.7%)                   |
| Outpatients         | 5 (33.3%)                  | 1 ( 33.3%)                   |
| Nonpatients         | 4 (26.7%)                  | 2 ( 66.7%)                   |
| Hospital Employees  | 9 (60.0%)                  | 2 ( 66.7%)                   |
| Corporate Employees | 5 (33.3%)                  | 0 ( 0.0%)                    |
|                     | N = 15                     | N = 3                        |

Only 11 out of the 80 hospitals completing the survey had elder fitness programs. The one proprietary hospital that offered elder fitness did so for outpatients, nonpatients, and hospital employees (See Table 34). Eight out of 10 nonprofit hospitals gave programs for nonpatients, while employees, inpatients, outpatients, and corporate employees were served to a lesser extent.

TABLE 34  
TARGET AUDIENCES FOR ELDER FITNESS PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 1 (10.0%)                  | 0 ( 0.0%)                    |
| Outpatients         | 1 (10.0%)                  | 1 (100.0%)                   |
| Nonpatients         | 8 (80.0%)                  | 1 (100.0%)                   |
| Hospital Employees  | 2 (20.0%)                  | 1 (100.0%)                   |
| Corporate Employees | 1 (10.0%)                  | 0 ( 0.0%)                    |
|                     | N = 10                     | N = 1                        |

Family planning represented the least offered of all programs, as only eight nonprofit and one for-profit hospital had programs. From Table 35 it can be seen that six of the eight nonprofit hospitals had programs for inpatients (75.0 percent) and a few programs for outpatients, nonpatients, and hospital employees. The one proprietary hospital served nonpatients only.

TABLE 35  
TARGET AUDIENCES FOR FAMILY PLANNING PROGRAMS

| Target Audience     | No. of Nonprofit Hospitals | No. of Proprietary Hospitals |
|---------------------|----------------------------|------------------------------|
| Inpatients          | 6 (75.0%)                  | 0 ( 0.0%)                    |
| Outpatients         | 3 (37.5%)                  | 0 ( 0.0%)                    |
| Nonpatients         | 3 (37.5%)                  | 1 (100.0%)                   |
| Hospital Employees  | 1 (12.5%)                  | 0 ( 0.0%)                    |
| Corporate Employees | 0 ( 0.0%)                  | 0 ( 0.0%)                    |
|                     | N = 8                      | N = 1                        |

Other programs reported on by some hospitals included heart health, cardiac rehabilitation, back safety, self-defense, personal fitness, and sibling preparation. Table 36 demonstrates the number of hospitals with such programs. Diabetes education was mentioned most frequently (8 hospitals), and cardiac rehabilitation, heart health, and back safety were all offered by several hospitals.

TABLE 36  
 ADDITIONAL HEALTH PROMOTION PROGRAMS  
 OFFERED BY SOME HOSPITALS

| Program Type           | Frequency |
|------------------------|-----------|
| Diabetes Education     | 8         |
| Cholesterol Screening  | 6         |
| Cardiac Rehabilitation | 4         |
| Back Safety            | 4         |
| Heart Health           | 3         |
| Personal Fitness       | 2         |
| Sibling Preparation    | 2         |
| Preventive Child Abuse | 2         |
| Eye Care               | 1         |
| Self-Defense           | 1         |

Hospitals were also asked to indicate which programs were offered by someone else in the community and which ones were not offered at all. Table 37 shows the programs most often offered by another community organization. Alcohol abuse, family planning, drug abuse, and aerobic dance were among the programs least offered by hospitals themselves. Hypertension and elderly fitness were not offered to any great extent by other community organizations, nor were they given frequently by hospitals.

Table 38 indicates the types of programs that were not offered in the community at all according to hospital health promotion coordinators. Elder fitness was the program most frequently mentioned. First aid, nutrition, breast self-exam, stress management, prenatal education, and AIDS education were the programs least often reported as lacking in the community; family planning, postnatal education, and physical fitness were offered by some hospitals and by other community organizations, although they were evidently not given in some communities.

TABLE 37  
PROGRAMS OFFERED BY OTHER COMMUNITY ORGANIZATIONS

| Program Type      | Frequency |
|-------------------|-----------|
| Weight Control    | 17        |
| Alcohol Abuse     | 17        |
| Family Planning   | 17        |
| Aerobic Dance     | 15        |
| Drug Abuse        | 13        |
| First Aid/CPR     | 12        |
| Stress Management | 10        |
| Physical Fitness  | 10        |
| Nutrition         | 9         |
| Smoking Cessation | 9         |
| AIDS              | 8         |
| Elder Fitness     | 7         |
| Prenatal          | 7         |
| Postnatal         | 5         |
| BSE               | 5         |
| Hypertension      | 3         |

TABLE 38  
PROGRAMS REPORTED AS NOT OFFERED BY  
OTHER COMMUNITY ORGANIZATIONS

| Program Type      | Frequency |
|-------------------|-----------|
| Elder Fitness     | 7         |
| Family Planning   | 6         |
| Postnatal         | 6         |
| Physical Fitness  | 6         |
| Aerobic Dance     | 5         |
| Alcohol Abuse     | 5         |
| Drug Abuse        | 5         |
| Smoking Cessation | 5         |
| Hypertension      | 4         |
| Weight Control    | 4         |
| AIDS              | 2         |
| Prenatal          | 2         |
| Stress Management | 2         |
| BSE               | 1         |
| Nutrition         | 1         |
| First Aid/CPR     | 0         |



While it appeared that different programs were aimed at different target audiences, it was deemed necessary to see whether type of hospital ownership influenced the target audiences served. Multiple response analysis was used to group all data on health promotion programs into the five categories of target audiences: inpatients, outpatients, nonpatients, hospital employees, and corporate employees. Table 39 shows the distribution of target audiences for all hospitals in the state who reported having health promotion programs.

From this table, it can be seen that inpatients, outpatients, and nonpatients were served almost equally, with 71.3 percent, 72.5 percent, and 75.0 percent respectively of the hospitals participating. All hospitals reported having at least one type of health promotion program for employees. Corporate employees were the target audience for the least number of programs, as only 35.0 percent of the hospitals sponsored programs for this group.

While inpatients, outpatients, and nonpatients were served by approximately equal numbers of hospitals, the greatest number of programs (316) was directed at nonpatients. There were 404 programs given for hospital employees, while only 101 programs were held for corporate employees.

TABLE 39  
DISTRIBUTION OF TARGET AUDIENCES FOR ALL RESPONDING  
NORTH CAROLINA HOSPITALS [N = 77]

| Target Audience     | No. of Hospitals | Percent | No. of Programs |
|---------------------|------------------|---------|-----------------|
| Inpatients          | 57               | 71.3    | 201             |
| Outpatients         | 58               | 72.5    | 205             |
| Nonpatients         | 60               | 75.0    | 316             |
| Hospital Employees  | 80               | 100.0   | 404             |
| Corporate Employees | 28               | 35.0    | 101             |

The distribution of target audiences for nonprofit hospitals is given in Table 40. Inpatients, outpatients, and nonpatients were all served by 71.6 percent of the responding hospitals. Every hospital sponsored programs for its employees, and corporate employees were served by 28.8 percent of the responding hospitals. The largest number of programs (346) were held for hospital employees, with programs for nonpatients (265) the second largest number. Only 91 programs were offered for corporate employees.

TABLE 40  
TARGET AUDIENCES SERVED BY NONPROFIT HOSPITALS [N = 64]

| Target Audience     | No. of Hospitals | Percent | No. of Programs |
|---------------------|------------------|---------|-----------------|
| Inpatients          | 48               | 71.6    | 182             |
| Outpatients         | 48               | 71.6    | 183             |
| Nonpatients         | 48               | 71.6    | 265             |
| Hospital Employees  | 64               | 100.0   | 346             |
| Corporate Employees | 23               | 28.8    | 91              |

Table 41 demonstrates the range of target audiences for proprietary hospitals. Inpatients and outpatients were served by 61.5 percent and 69.2 percent of hospitals respectively. These percentages were very similar to those found for nonprofit hospitals. Nonpatients were served by 84.6 percent of the proprietary hospitals, which was slightly higher than that found for nonprofit institutions. Corporate employees had programs sponsored by 30.8 percent of the responding proprietary hospitals, while hospital employees were served by 100 percent of these institutions. All of these percentages were comparable to those found for nonprofit hospitals.

The greatest number of programs (58) was directed towards hospital employees, and nonpatients were the target group for 51 programs. Inpatients and outpatients were served almost equally, with 19 and 22 programs respectively. Only 10 programs were held for corporate employees.

TABLE 41  
TARGET AUDIENCES SERVED BY PROPRIETARY HOSPITALS [N = 13]

| Target Audience     | No. of Hospitals | Percent | No. of Programs |
|---------------------|------------------|---------|-----------------|
| Inpatients          | 8                | 61.5    | 19              |
| Outpatients         | 9                | 69.2    | 22              |
| Nonpatients         | 11               | 84.6    | 51              |
| Hospital Employees  | 13               | 100.0   | 58              |
| Corporate Employees | 4                | 30.8    | 10              |

## V. MANAGEMENT AND ORGANIZATION OF HEALTH PROMOTION PROGRAMS

In order to learn about the organizational structure of hospital health promotion, hospitals were asked which department was responsible for coordinating program offerings. Slightly more than one quarter (28.5 percent) responded that more than one department was involved, as seen in Table 42. Inservice was named by 24.1 percent of the hospitals as the main department coordinating programs, followed by Nursing with 9.1 percent responding in this manner. Marketing coordinated programs for 9.1 percent of the respondents, and public relations was used by 7.6 percent of hospitals. Other departments that were named by hospitals were Wellness, Patient Education, Community Health, Cardiology, Education, Employee Health, Health Promotion, Health Education, and Administration.

TABLE 42

COORDINATION OF HEALTH PROMOTION PROGRAMS FOR RESPONDING  
NORTH CAROLINA HOSPITALS

| Department        | Frequency For<br>All Hospitals | Frequency For<br>Nonprofit Hospitals | Frequency For<br>Proprietary Hospitals |
|-------------------|--------------------------------|--------------------------------------|----------------------------------------|
| More Than One     | 22 (28.5%)                     | 18 (27.3%)                           | 4 (30.8%)                              |
| Inservice         | 18 (24.1%)                     | 15 (23.4%)                           | 3 (23.1%)                              |
| Nursing           | 7 ( 9.1%)                      | 5 ( 7.8%)                            | 2 (15.4%)                              |
| Marketing         | 7 ( 9.1%)                      | 5 ( 7.8%)                            | 2 (15.4%)                              |
| Public Relations  | 6 ( 7.6%)                      | 4 ( 6.3%)                            | 0 ( 0.0%)                              |
| Wellness          | 5 ( 6.3%)                      | 5 ( 7.8%)                            | 2 (15.4%)                              |
| Patient Education | 3 ( 3.8%)                      | 3 ( 4.5%)                            | 0 ( 0.0%)                              |
| Community Health  | 2 ( 2.5%)                      | 2 ( 3.1%)                            | 0 ( 0.0%)                              |
| Education         | 2 ( 2.5%)                      | 2 ( 3.1%)                            | 0 ( 0.0%)                              |
| Administration    | 1 ( 1.3%)                      | 1 ( 3.1%)                            | 0 ( 0.0%)                              |
| Cardiology        | 1 ( 1.3%)                      | 1 ( 3.1%)                            | 0 ( 0.0%)                              |
| Health Promotion  | 1 ( 1.3%)                      | 1 ( 3.1%)                            | 0 ( 0.0%)                              |
| Employee Health   | 1 ( 1.3%)                      | 1 ( 3.1%)                            | 0 ( 0.0%)                              |
| Health Education  | 1 ( 1.3%)                      | 1 ( 3.1%)                            | 0 ( 0.0%)                              |
|                   | N = 79                         | N = 66                               | N = 13                                 |

When nonprofit hospitals were considered by themselves, the results were much the same (see Table 42). The most popular means of coordination was through more than one department (27.3 percent), followed by Inservice, which was used by 23.4 percent of the hospitals, and Nursing which coordinated 7.8 percent of the programs. Marketing, Wellness, and Public Relations were utilized to a lesser extent. Other departments mentioned were Patient Education, Community Health, Education, Cardiology, Administration, Health Education, Employee Health, and Health Promotion.

Table 42 also shows the results for proprietary hospitals. As in the other two cases, the leading response was "more than one department," with 30.8 percent of hospitals answering in this manner. Inservice was named by 23.1 percent of the hospitals, and Nursing, Public Relations, and Marketing were each mentioned by 15.4 percent of the responding for-profit hospitals. No other departments were listed as coordinating activities for proprietary hospitals.

In order to further ascertain the extent of organization of health promotion programs, hospitals were asked if there was a program director, what the title of this position was, and how much time was devoted to health promotion programming. Table 43 illustrates for each type of hospital the number with a program director. Slightly less than half, or 47.5 percent, of all responding hospitals indicated that they had a program director. This number was 46.3 percent for nonprofit hospitals and 43.8 percent for proprietary hospitals. The chi square value indicated the percentage difference between the groups was not significant. A phi coefficient showed no relationship between the type of hospital and the propensity to have a program director for health promotion programs.

TABLE 43  
DISTRIBUTION OF HOSPITALS WITH A PROGRAM DIRECTOR  
FOR HEALTH PROMOTION OFFERINGS

| Hospital Type | Number Responding | Positive Response | Percent |
|---------------|-------------------|-------------------|---------|
| Nonprofit     | 67                | 31                | 46.3    |
| Proprietary   | 13                | 7                 | 53.8    |
| All           | 80                | 38                | 47.5    |

$$\chi^2 = 0.000, p > .05, \phi = 0.005.$$

Those hospitals indicating they had a health promotion director were asked for the title of this position. Table 44 gives the range of titles used by the different types of hospitals. For nonprofit hospitals, the most frequently used titles were Education Director (6), Public Relations Director (6), and Employee Wellness Director (6). Other titles used included Community Care Coordinator (2), Director of Marketing (2), Health Promotion Coordinator (2), and Manager of Healthworks (2).

Proprietary hospitals, on the other hand, most frequently used the title of Inservice Director (3) or Community Care Coordinator (2). Other titles used included Education Director, and Director/Assistant Director of Nursing.

Responding hospitals were also asked to estimate the percentage of the director's time that was devoted to health promotion programming. The results are depicted in Table 45. Of the 34 hospitals with a program director, 51.9 percent of nonprofit hospitals and 71.4 percent of proprietary institutions reported that 30 percent or less of this person's time was devoted to health promotion programming. Twelve nonprofit hospitals

TABLE 44  
DISTRIBUTION OF TITLES OF PROGRAM DIRECTORS ACCORDING TO  
HOSPITAL TYPE

| Title                                 | Frequency For<br>All Hospitals | Frequency For<br>Nonprofit Hospitals | Frequency For<br>Proprietary Hospitals |
|---------------------------------------|--------------------------------|--------------------------------------|----------------------------------------|
| Education Director                    | 7                              | 6                                    | 1                                      |
| Public Relations<br>Director          | 6                              | 6                                    | 0                                      |
| Employee Wellness<br>Director         | 6                              | 6                                    | 0                                      |
| Community Care<br>Coordinator         | 4                              | 2                                    | 2                                      |
| Inservice Director                    | 4                              | 1                                    | 3                                      |
| Director of Marketing                 | 2                              | 2                                    | 0                                      |
| Health Promotion<br>Coordinator       | 2                              | 2                                    | 0                                      |
| Director/Asst. Director<br>of Nursing | 2                              | 1                                    | 1                                      |
| Manager of Healthworks                | 2                              | 2                                    | 0                                      |
| Physician Extender                    | 1                              | 1                                    | 0                                      |
| My Life Coordinator                   | 1                              | 1                                    | 0                                      |
| Manager                               | 1                              | 1                                    | 0                                      |
|                                       | N = 38                         | N = 31                               | N = 7                                  |



TABLE 45  
DISTRIBUTION OF PERCENTAGES OF DIRECTOR'S TIME DEVOTED  
TO HEALTH PROMOTION PROGRAMMING

| Percent of Time | Positive Responses |                     |                       |
|-----------------|--------------------|---------------------|-----------------------|
|                 | All Hospitals      | Nonprofit Hospitals | Proprietary Hospitals |
| 1-30            | 19 (55.9%)         | 14 (51.9%)          | 5 (71.4%)             |
| 31-70           | 3 ( 8.8%)          | 1 ( 3.7%)           | 2 (28.6%)             |
| 71-100          | 12 (35.5%)         | 12 (44.4%)          | 0 ( 0.0%)             |
|                 | N = 34             | N = 27              | N = 7                 |

$$\chi^2 = 7.388, p = .02, \text{Cramer's } V = 0.466.$$

(44.4 percent) indicated that the director spent 70 to 100 percent of his time on health promotion, whereas no proprietary hospitals indicated this amount of time spent. The chi square obtained was significant at the .05 level, and Cramer's V showed a definite degree of association between hospital type and the percentage of time the director spent on health promotion programming.

## VI. STAFF UTILIZED FOR HEALTH PROMOTION PROGRAMMING

Another measure used to indicate the amount of emphasis placed on health promotion programming by hospitals was the determination of the number of staff members and the titles of these individuals. Respondents were asked to indicate how many full-time personnel besides the director were involved in health promotion. These

results appear in Table 46. The majority of hospitals (54.5 percent) in all categories indicated that no other full-time equivalents besides the director were involved in health promotion programming. Those hospitals who indicated that between one to three full-time personnel worked in health promotion included 34.4 percent (22) of the nonprofit hospitals and 30.8 percent (4) of the proprietary hospitals. No proprietary hospital reported having more than three full-time personnel, whereas 7 nonprofit hospitals (11.0 percent) reported employing between 4 to 7 full-time people, and 2 nonprofit hospitals employed 8 or 9 full-time persons. These differences were not statistically significant, however.

TABLE 46

FULL-TIME PERSONNEL OTHER THAN THE DIRECTOR WHO WERE UTILIZED  
IN HEALTH PROMOTION PROGRAMMING

| FTE | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals |
|-----|--------------------------------|--------------------------------------|----------------------------------------|
| 0   | 42 (54.5%)                     | 33 (51.6%)                           | 9 (69.2%)                              |
| 1-3 | 26 (33.8%)                     | 22 (34.4%)                           | 4 (30.8%)                              |
| 4-7 | 7 ( 9.1%)                      | 7 (11.0%)                            | 0 ( 0.0%)                              |
| 8-9 | 2 ( 2.6%)                      | 2 ( 3.1%)                            | 0 ( 0.0%)                              |
|     | N = 77                         | N = 64                               | N = 13                                 |

$$x^2 = 2.488, p > .05, \text{Cramer's } V = 0.180.$$

Determination of the types of individuals who actively participated in health promotion programs was elucidated by having respondents place a check beside each category of personnel involved. A prioritized listing of personnel utilized by all responding hospitals in North Carolina is presented in Table 47. Nurses were the staff members most involved, as 82.9 percent (63) of the hospitals indicated participation of this group. Nutritionists were utilized by 77.6 percent (59) of all hospitals, and physicians were involved by 61.8 percent (47) of the responding hospitals. Other groups who actively participated were health educators (50.0 percent), physical therapists (48.7 percent), laboratory personnel (43.4 percent), community support groups (35.5 percent), x-ray personnel (28.9 percent), pharmacists (27.6 percent), and social workers (27.6 percent). Individuals utilized to a lesser extent were psychologists (17.1 percent), medical library staff (17.1 percent), and hospital volunteers (10.5 percent).

Staff members utilized by nonprofit and proprietary hospitals did not appear to differ significantly for the first seven groups. In nonprofit hospitals, staff members who actively participated included nurses (81.0 percent), nutritionists (79.4 percent), physicians (61.9 percent), physical therapists (49.2 percent), health educators (49.2 percent), laboratory personnel (41.3 percent), and community support groups (34.9 percent). X-ray personnel and social work staff members both participated in 28.6 percent of nonprofit programs, and pharmacists and psychologists were both used by over 20 percent of hospitals.

Proprietary hospital staff members utilized most included nurses (92.3 percent), nutritionists (69.3 percent), physicians (61.5 percent), health educators (53.8 percent), physical therapists (46.2 percent), and community support groups (38.5 percent). Pharmacists participated in programs in 38.5 percent of hospitals, as compared to 25.4 percent in nonprofit hospitals. Psychologists and auxiliaries or volunteers were not

TABLE 47

**HOSPITAL STAFF MEMBERS WHO ACTIVELY PARTICIPATE IN HEALTH  
PROMOTION PROGRAMMING**

| Staff Member                | Frequency For<br>All Hospitals | Frequency For<br>Nonprofit Hospitals | Frequency For<br>Proprietary Hospitals |
|-----------------------------|--------------------------------|--------------------------------------|----------------------------------------|
| Nurses                      | 63 (82.9%)                     | 51 (81.0%)                           | 12 (92.3%)                             |
| Nutritionists               | 59 (77.6%)                     | 50 (81.0%)                           | 9 (69.2%)                              |
| Physicians                  | 47 (61.8%)                     | 39 (61.9%)                           | 8 (61.5%)                              |
| Health Educators            | 38 (50.0%)                     | 31 (49.2%)                           | 7 (53.8%)                              |
| Physical Therapists         | 37 (48.7%)                     | 31 (49.2%)                           | 6 (46.2%)                              |
| Laboratory Personnel        | 33 (43.4%)                     | 26 (41.3%)                           | 7 (53.8%)                              |
| Community Support<br>Groups | 27 (35.5%)                     | 22 (34.9%)                           | 5 (38.5%)                              |
| X-ray Personnel             | 22 (28.9%)                     | 18 (28.6%)                           | 4 (30.8%)                              |
| Pharmacists                 | 21 (27.6%)                     | 16 (25.4%)                           | 5 (38.5%)                              |
| Social Work Staff           | 21 (27.6%)                     | 18 (28.6%)                           | 3 (23.1%)                              |
| Psychologists               | 13 (17.1%)                     | 13 (20.6%)                           | 0 ( 0.0%)                              |
| Medical Library Staff       | 13 (17.1%)                     | 12 (19.0%)                           | 1 ( 7.7%)                              |
| Auxiliaries/Volunteers      | 8 (10.5%)                      | 8 (12.7%)                            | 0 ( 0.0%)                              |
| Others                      | 5 ( 6.6%)                      | 4 ( 6.3%)                            | 0 ( 0.0%)                              |
|                             | N = 76                         | N = 63                               | N = 13                                 |

involved in programs at all in proprietary hospitals, while they were used to some extent in nonprofit hospitals.

## VII FINANCING FOR HEALTH PROMOTION PROGRAMS

Methods of financing for health promotion programs were investigated as another measure of the status of such programs in North Carolina hospitals. Including charges in the daily room rate or setting aside a specific budget for health promotion programming would tend to make these programs more available for the general public. Hospitals were asked about six different methods of financing. They were: 1) cost covered entirely by fees to participants, 2) cost covered by daily room charges, 3) grant to the hospital, 4) specific fund-raising activities, 5) small fee with most of the cost absorbed by the hospital, and 6) any other methods.

The profile of hospitals who charged a fee to participants as the sole means of meeting expenses is presented in Table 48. Only 24.6 percent (15) of the nonprofit hospitals and 16.7 percent (2) of the proprietary hospitals met expenses in this manner. Chi square analysis showed the difference between the groups was not significant, and the phi coefficient indicated no real relationship between hospital type and this method of financing.

TABLE 48

FINANCING HEALTH PROMOTION COSTS ENTIRELY BY CHARGING FEES  
TO PARTICIPANTS

| Hospital Type | Number Responding | Positive Responses | Percent |
|---------------|-------------------|--------------------|---------|
| Nonprofit     | 61                | 15                 | 24.6    |
| Proprietary   | 13                | 2                  | 15.4    |
| All           | 74                | 17                 | 23.0    |

$$\chi^2 = 0.048, p > .05, \text{Phi} = 0.069.$$

Table 49 shows the number and types of hospitals including health promotion costs in daily room charges. Eighteen percent of the responding hospitals used this method, as did 16.7 percent of the proprietary hospitals. The chi square was not significant, and the phi coefficient indicated no relationship between these variables.

TABLE 49  
FINANCING HEALTH PROMOTION COSTS BY INCLUSION IN THE DAILY  
ROOM RATE

| Hospital Type | Number Responding | Positive Responses | Percent |
|---------------|-------------------|--------------------|---------|
| Nonprofit     | 61                | 11                 | 17.2    |
| Proprietary   | 13                | 2                  | 15.4    |
| All           | 74                | 13                 | 17.8    |

$\chi^2 = 0.000$ ,  $p > .05$ ,  $\Phi = 0.013$ .

Hospitals obtaining grants to fund health promotion programs are shown in Table 50. The three hospitals who used this method of financing were all nonprofit hospitals. Since this number was so small, however, the chi square was not significant.

TABLE 50  
FINANCING OF HEALTH PROMOTION COSTS BY GRANTS TO HOSPITALS

| Hospital Type | Number Responding | Positive Responses | Percent |
|---------------|-------------------|--------------------|---------|
| Nonprofit     | 61                | 3                  | 4.9     |
| Proprietary   | 13                | 0                  | 0.0     |
| All           | 74                | 3                  | 4.1     |

$$\chi^2 = 0.000, p > .05, \text{Phi} = 0.092.$$

None of the responding hospitals indicated that they financed health promotion programs through specific fund-raising activities. This method has been reported in the literature as being used by some hospitals, but has evidently not been tried by any responding North Carolina hospitals.

Table 51 shows the distribution of hospitals who charged a small fee for health promotion programs. If hospitals owned by stated or local governments are considered as a separate category from nonprofit hospitals, a chi square is obtained that is significant at the 0.01 level . The value for Cramer's V indicates a definite but small degree of association between hospital ownership and the charging of a small fee for health promotion.

If, however, state or local government hospitals are considered as nonprofit hospitals, then 60.7 percent of nonprofit hospitals (37) and 33.3 percent of proprietary hospitals (4) charged a small fee for programs(see Table 52). In this case, the difference is not significant. This is the only instance in which separation of state and



local government hospitals from nonprofit hospitals made a difference in the results obtained.

TABLE 51  
FINANCING OF HEALTH PROMOTION PROGRAMS  
BY CHARGING A SMALL FEE TO PARTICIPANTS  
(CONSIDERING GOVERNMENTAL HOSPITALS SEPARATELY)

| Hospital Type          | Number Responding | Positive Responses | Percent |
|------------------------|-------------------|--------------------|---------|
| Nonprofit              | 51                | 35                 | 68.6    |
| Proprietary            | 12                | 4                  | 33.3    |
| State/Local Government | 10                | 2                  | 20.0    |
| All                    | 73                | 41                 | 56.2    |

$\chi^2 = 11.070$ ,  $p < .003$ , Cramer's  $V = 0.389$ .

TABLE 52

FINANCING OF HEALTH PROMOTION PROGRAMS BY CHARGING A SMALL  
FEE TO PARTICIPANTS

| Hospital Type | Number Responding | Positive Responses | Percent |
|---------------|-------------------|--------------------|---------|
| Nonprofit     | 61                | 37                 | 60.7    |
| Proprietary   | 12                | 4                  | 33.3    |
| All           | 73                | 41                 | 56.2    |

$$\chi^2 = 2.032, p > .05, \text{Phi} = 0.204.$$

Other methods of financing are shown in Table 53. This response was chosen by 69.2 percent of the proprietary hospitals, and in all cases, it was indicated that there was no fee for programs, as the cost was budgeted or absorbed by the hospital.

Nonprofit hospitals, in contrast, chose this response in only 18 percent of the cases. Eight of the nonprofit hospitals responding in this manner indicated that costs were absorbed by the hospital, one stated that programs were for employees only and no fee was charged, one reported relied on members ingenuity, and one "other" response was not explained. A chi square was obtained which was significant at the 0.01 level. The phi coefficient indicated a definite degree of association between this response and type of hospital ownership.

TABLE 53  
FINANCING OF HEALTH PROMOTION COSTS BY OTHER METHODS

| Hospital Type | Number Responding | Positive Responses | Percent |
|---------------|-------------------|--------------------|---------|
| Nonprofit     | 61                | 11                 | 18.0    |
| Proprietary   | 13                | 9                  | 69.2    |
| All           | 74                | 20                 | 27.4    |

$$x^2 = 13.621, p < .01, \text{Phi} = 0.473.$$

In addition to ascertaining specific methods of financing, respondents were asked how the DRG method of reimbursement affected the offering of health promotion programs. The results are shown in Table 54. A majority (66.2 percent) of the hospitals indicated that health promotion offerings have remained the same, and this was the case for nonprofit hospitals (61.8 percent) as well as proprietary hospitals (84.6 percent). Only 2.9 percent of all hospitals indicated that program offerings have decreased due to DRGs. Almost one-third of all responding hospitals said that health promotion programs have increased due to the influence of the DRGs. This number included 34.5 percent of the nonprofit hospitals and 15.4 percent of proprietary hospitals. A chi square showed no significant difference between the types of hospitals, and a Cramer's V showed no definite relationship between hospital type and the effect of the DRGs on health promotion programming.

TABLE 54  
EFFECTS OF THE DRGS ON THE OFFERING OF HEALTH PROMOTION  
PROGRAMS

| Result            | Frequency For<br>All Hospitals | Frequency For<br>Nonprofit Hospitals | Frequency For<br>Proprietary Hospitals |
|-------------------|--------------------------------|--------------------------------------|----------------------------------------|
| Increased         | 21 (30.9%)                     | 19 (34.5%)                           | 2 (15.4%)                              |
| Decreased         | 2 (02.9%)                      | 2 (03.6%)                            | 0 ( 0.0%)                              |
| Remained the Same | 45 (66.2%)                     | 34 (61.8%)                           | 11 (86.4%)                             |
|                   | N = 68                         | N = 55                               | N = 13                                 |

$$\chi^2 = 2.549, p > .05, \text{ Cramer's } V = 0.194.$$

#### VIII. METHODS USED TO MODIFY BEHAVIOR AND ASSESSMENT OF RESULTS

Participants in the survey were asked to supply information on the methods used to modify behavior of those enrolled in health promotion programs. This question was designed to discover if more than mere sharing of health information was taking place. A prioritized list of methods used by all responding hospitals is presented in Table 55. As indicated by the table, use of audio-visual aids, written materials, and lecture classes were the most frequently used methods. Other methods used included: discussion groups, demonstrations, health risk assessments, and counseling. Those methods used to a lesser extent included self-contracting, role-play, and computer-assisted health instruction.

TABLE 55  
METHODS USED BY RESPONDING HOSPITALS TO MODIFY BEHAVIOR

| Method                        | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|-------------------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Written                       | 64 (82.1%)                     | 55 (83.3%)                           | 9 (75.0%)                              | 0.080         | 0.77  |
| Audio-visual Materials        | 65 (83.3%)                     | 54 (81.8%)                           | 11 (91.7%)                             | 0.177         | 0.674 |
| Lecture Classes               | 63 (80.8%)                     | 52 (78.8%)                           | 11 (91.7%)                             | 0.414         | 0.520 |
| Discussion Groups             | 55 (70.5%)                     | 46 (69.7%)                           | 9 (75.0%)                              | 0.001         | 0.979 |
| Demonstrations                | 50 (64.1%)                     | 41 (62.1%)                           | 9 (75.0%)                              | 0.279         | 0.597 |
| Health Risk Assessments       | 42 (53.8%)                     | 38 (57.6%)                           | 5 (33.3%)                              | 1.525         | 0.217 |
| Counseling                    | 38 (48.7%)                     | 33 (50.0%)                           | 5 (41.7%)                              | 0.047         | 0.828 |
| Self-contracting              | 19 (24.4%)                     | 17 (25.8%)                           | 2 (16.7%)                              | 0.096         | 0.757 |
| Role-play                     | 16 (20.5%)                     | 13 (19.7%)                           | 3 (25.0%)                              | 0.001         | 0.976 |
| Computer-Assisted Instruction | 12 (15.4%)                     | 11 (16.7%)                           | 1 ( 8.3%)                              | 0.091         | 0.763 |
| Other                         | 0 ( 0.0%)                      | 0 ( 0.0%)                            | 0 ( 0.0%)                              |               |       |
|                               |                                |                                      |                                        |               |       |
|                               |                                | N = 78                               | N = 66                                 | N = 12        |       |

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

Results for nonprofit and proprietary hospitals considered separately were very similar. Health risk assessments, however, were used by a slightly smaller percentage of proprietary institutions, as compared to nonprofit hospitals. No statistically significant difference between the two groups was noted for any of the methods used.

After investigating the various means of modifying participant behavior, methods used to evaluate the results were compared according to type of hospital ownership. For all hospital types (see Table 56), the three most used methods of program evaluation were a check on attendance, satisfaction surveys, and knowledge testing. Recording attendance was used by 86.7 percent of nonprofit hospitals and 76.9 percent of proprietary hospitals. Satisfaction surveys were used by 53.3 percent of nonprofit hospitals and 46.2 percent of proprietary hospitals. Knowledge testing was administered by 38.3 percent of nonprofit hospitals and 30.8 percent of profit institutions.

Questionnaires on compliance were utilized by 21.7 percent of nonprofit hospitals, while they were used by only 7.7 percent of proprietary hospitals. Other methods such as telephone interviews, post program sessions, checks on employee absenteeism, use of behavior inventories, and monitoring of health care utilization were not used to any great extent by either type of hospital. Chi square analysis indicated there was no relationship between use of any of these methods and type of hospital ownership.

TABLE 56  
METHODS USED TO EVALUATE HEALTH PROMOTION PROGRAMS

| Method                            | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|-----------------------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Attendance                        | 62 (83.8%)                     | 52 (86.7%)                           | 10 (76.9%)                             | 0.214         | 0.644 |
| Satisfaction Survey               | 38 (51.4%)                     | 32 (53.3%)                           | 6 (46.2%)                              | 0.027         | 0.870 |
| Knowledge Testing                 | 27 (36.5%)                     | 23 (38.3%)                           | 4 (30.8%)                              | 0.038         | 0.845 |
| Questionnaire on Compliance       | 14 (18.9%)                     | 13 (21.7%)                           | 1 ( 7.7%)                              | 0.596         | 0.440 |
| Post Program Session              | 13 (17.6%)                     | 11 (18.3%)                           | 2 (15.4%)                              | 0.000         | 1.000 |
| Telephone Interview               | 9 (12.2%)                      | 8 (13.3%)                            | 1 ( 7.7%)                              | 0.009         | 0.924 |
| Behavior Interview                | 8 (10.8%)                      | 6 (10.0%)                            | 2 (15.4%)                              | 0.005         | 0.941 |
| Monitoring Healthcare Utilization | 8 (10.8%)                      | 6 (10.0%)                            | 2 (15.4%)                              | 0.005         | 0.941 |
| Check on Employee Absenteeism     | 4 ( 5.4%)                      | 3 ( 5.0%)                            | 1 ( 7.7%)                              | 0.000         | 1.000 |
| Other                             | 4 ( 5.4%)                      | 3 ( 5.0%)                            | 1 ( 7.7%)                              | 0.000         | 1.000 |

N = 74                      N = 61                      N = 13

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

## IX. PLANNING FOR AND ATTRACTING CLIENTS TO HEALTH PROMOTION PROGRAMS

In order to determine more about the development of hospital health promotion programs, the respondents were asked to identify other community resources used in planning of programs. Specifically, hospitals were asked if they consulted with any of the following: professional associations, volunteer health organizations, marketing research specialists, practicing physicians, the county health department, the medical records department, and any other associations. Table 57 shows which other community resources contributed to the planning process.

As seen in Table 57, practicing physicians were the group consulted most by both nonprofit (74.1 percent) and proprietary institutions (50.0 percent). Professional associations were consulted by 65.5 percent of nonprofit hospitals and 41.7 percent of proprietary hospitals. Chi square analyses revealed no significant differences between the two types of hospitals and consultation with physicians or professional associations.

Marketing research specialists were consulted by 31.0 percent of the responding nonprofit hospitals and 25.0 percent of proprietary institutions. Again, chi square analysis showed no significant difference between hospital types and input from marketing research specialists.

Volunteer health organizations were utilized in planning by 48.3 percent of nonprofit hospitals and only 8.3 percent of proprietary hospitals. This constitutes a significant difference, as a chi square was obtained which was significant at the 0.05 level.



TABLE 57

## COMMUNITY RESOURCES CONSULTED IN THE PLANNING OF HEALTH PROMOTION PROGRAMS

| Method                         | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|--------------------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Practicing Physicians          | 49 (69.0%)                     | 43 (74.1%)                           | 6 (50.0%)                              | 1.487         | 0.223 |
| Professional Associations      | 43 (60.6%)                     | 38 (65.5%)                           | 5 (41.7%)                              | 4.995         | 0.025 |
| Volunteer Health Organizations | 29 (40.8%)                     | 28 (48.3%)                           | 1 ( 8.3%)                              | 0.005         | 0.945 |
| County Health Department       | 28 (39.4%)                     | 26 (44.8%)                           | 2 (16.7%)                              | 1.729         | 0.189 |
| Marketing Research Specialists | 21 (29.6%)                     | 18 (31.0%)                           | 3 (25.0%)                              | 2.217         | 0.137 |
| Medical Records Department     | 9 (12.7%)                      | 7 (12.1%)                            | 2 (16.7%)                              | 0.000         | 1.000 |
| Other                          | 7 (10.0%)                      | 4 ( 6.9%)                            | 3 (27.3%)                              | 2.273         | 0.132 |
| N = 71                         |                                |                                      | N = 58                                 |               |       |
|                                |                                |                                      | N = 12                                 |               |       |

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

Other groups consulted were: county health departments by 44.8 percent of nonprofit hospitals and 16.7 percent of proprietary hospitals, and medical records personnel, consulted by 12.1 percent of nonprofit hospitals and 16.7 percent of proprietary institutions. These differences were found not to be significant, according to chi square analysis.

In addition to consultation with community groups, hospitals were asked to enumerate methods used to attract potential clients. Those methods considered were: health fairs, screening clinics, physician referrals, advertising, and anything else used. Table 58 gives a distribution of the responses according to hospital type.

As demonstrated by Table 58, physician referral was the most frequently used method by nonprofit hospitals (69.7 percent) and proprietary hospitals (61.5 percent) alike. Health fairs were conducted by 68.2 percent of nonprofit hospitals and 53.8 percent of proprietary institutions, and advertising was used by over sixty percent of both hospitals. Screening clinics were used to a lesser extent by both nonprofit (51.5 percent) and proprietary (38.5 percent) institutions. A very few hospitals used other methods, which included brochures in doctors' offices, publicity in local newspapers, and telephone calls. No statistically significant differences were noted.

## **X. SPECIALIZED FACILITIES FOR HEALTH PROMOTION PROGRAMS**

Another indicator of commitment to health promotion programming is the provision of specialized facilities for this purpose. Thus, hospitals were asked about the following facilities: walking /jogging trail, fitness trail, weight room, exercise equipment, or any other facilities. They were also asked to indicate who would have access to those

TABLE 58  
METHODS USED BY HOSPITALS TO ATTRACT POTENTIAL CLIENTS

| Method             | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|--------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Health Fairs       | 52 (65.8%)                     | 45 (68.2%)                           | 7 (53.8%)                              | 0.457         | 0.499 |
| Screening Clinics  | 39 (49.4%)                     | 34 (51.5%)                           | 5 (38.5%)                              | 0.310         | 0.577 |
| Physician Referral | 54 (68.4%)                     | 46 (69.7%)                           | 8 (61.5%)                              | 0.063         | 0.801 |
| Advertising        | 53 (67.1%)                     | 44 (66.7%)                           | 9 (69.2%)                              | 0.000         | 1.000 |
| Other              | 5 ( 6.3%)                      | 4 ( 6.1%)                            | 1 ( 7.7%)                              | 0.000         | 1.000 |

N = 79                      N = 66                      N = 13

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

facilities mentioned. Choices given were: hospital employees, fee-paying members, the general public, or any other group. The results are shown in Tables 59 and 60.

More than half of the proprietary hospitals (61.5 percent) reported not having any of the above mentioned facilities, and 44.8 percent of the nonprofit hospitals responded in the same manner. For nonprofit hospitals, the most frequently enumerated facility was a walking/jogging trail (32.8 percent), while for proprietary hospitals exercise equipment was the most mentioned facility (15.4 percent). Ten nonprofit hospitals (14.9 percent) had a fitness trail, while only one proprietary hospital did (7.7 percent). No proprietary hospitals had weight rooms, whereas 7 (10.4 percent) nonprofit hospitals provided these. Chi square analysis revealed, however, that none of these differences were statistically significant.

Table 60 shows the variety of groups who would have access to any such hospital facilities. Hospital employees were the largest group for both proprietary and nonprofit hospitals, with 23.1 percent and 48.8 percent of reporting hospitals respectively. Fee-paying members had access to 19.4 percent of nonprofit hospital facilities and 15.4 percent of proprietary hospital facilities. The general public was able to use facilities provided by 26.9 percent of nonprofit hospitals as opposed to 15.4 percent of facilities owned by proprietary institutions. Chi square analysis run on all facility types did not indicate any significant differences between nonprofit and proprietary hospitals in this regard.

TABLE 59

## SPECIALIZED FACILITIES HOSPITALS PROVIDE FOR HEALTH PROMOTION PROGRAMS

| Method                | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|-----------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Walking/Jogging Trail | 23 (28.8%)                     | 22 (32.8%)                           | 1 ( 7.7%)                              | 2.245         | 0.134 |
| Fitness Trail         | 11 (13.8%)                     | 10 (14.9%)                           | 1 ( 7.7%)                              | 0.064         | 0.800 |
| Weight Room           | 7 ( 8.6%)                      | 7 (10.4%)                            | 0 ( 0.0%)                              | 0.468         | 0.498 |
| Exercise Equipment    | 22 (27.2%)                     | 20 (29.8%)                           | 2 (15.4%)                              | 0.532         | 0.465 |
| Other                 | 10 (12.3%)                     | 8 (11.9%)                            | 2 (15.4%)                              | 0.000         | 1.000 |
| None                  | 38 (46.9%)                     | 30 (44.8%)                           | 8 (61.5%)                              | 0.647         | 0.421 |

N = 80

N = 67

N = 13

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

TABLE 60  
INDIVIDUALS GIVEN ACCESS TO HEALTH PROMOTION FACILITIES

| Method             | Frequency for<br>All Hospitals | Frequency for<br>Nonprofit Hospitals | Frequency for<br>Proprietary Hospitals | Chi<br>Square | p     |
|--------------------|--------------------------------|--------------------------------------|----------------------------------------|---------------|-------|
| Hospital Employees | 35 (43.8%)                     | 32 (48.8%)                           | 3 (23.1%)                              | 1.786         | 0.181 |
| Fee-paying Members | 15 (18.8%)                     | 13 (19.4%)                           | 2 (15.4%)                              | 0.000         | 1.000 |
| General Public     | 20 (25.0%)                     | 18 (26.8%)                           | 2 (15.4%)                              | 0.276         | 0.600 |
| Other              | 3 ( 3.8%)                      | 3 ( 4.5%)                            | 0 ( 0.0%)                              | 0.000         | 1.000 |

N = 80

N = 67

N = 13

Note: See page 42 of the Methodology section for an explanation of the format used for this table.

## XI. INTERPRETATION OF THE DATA

The survey results indicate that almost all hospitals in North Carolina, regardless of size or type of hospital ownership, offer at least one kind of health promotion program. This appears to represent an increase in the number of hospitals involved in health promotion, as a 1983 study in Michigan (Pack et al., 1985) showed that only seventy-two percent of the responding hospitals offered such programs. Additionally, the Michigan study concluded that smaller hospitals were considerably less likely to offer health promotion programs. This is in contrast to the present findings, which demonstrate that small hospitals are just as likely to offer programs, although the offerings may not be as extensive.

The increased number of hospitals involved in health programming may be indicative of a general trend. Proliferation of health promotion programs in smaller hospitals in particular may mean that for rural areas, where most of these hospitals are located, such programs are now more widely available.

It is not known how long the present programs have been operating, however, and how firm their financial foundations are within the hospital system. Many such programs are offered on a trial basis with the understanding that they will eventually be self-supporting. Thus it is not known whether this trend will indeed continue.

Both proprietary and nonprofit hospitals saw the offering of health promotion programs primarily as a public relations tool and a needed community service rather than a source of revenue. Accordingly, the majority of responding hospitals either charged a small fee or no fee at all. Proprietary hospitals were more likely to offer programs at no cost, and thus these programs may be more accessible to the general public, especially for those who could not afford to pay for such services.

Very few hospitals utilized other sources of revenue such as grants or donations, and this may indicate an area that needs further consideration. If hospitals are seriously committed to offering health promotion as a community service, this would be a way of providing low or no cost programs to the public without depending upon the hospital's budget to meet expenses.

The institution of the diagnosis related group (DRG) method of reimbursement does not appear to have influenced the offering of health promotion programs. The majority of both proprietary and nonprofit institutions indicated that offerings have remained the same. This is consistent with the finding that most hospitals did not regard health promotion programming primarily as a revenue generator.

For the most part, program offerings tended to be similar for nonprofit and proprietary hospitals. CPR and AIDS education were the most popular programs, and these were chiefly aimed at hospital employees. The fact that these are mandated by accrediting bodies may be an explanation for these findings.

Some differences noted included the fact that nonprofit hospitals were more likely to offer hypertension, physical fitness, and postnatal programs, while proprietary hospitals readily offered aerobic dance programs. This may indicate an appeal to slightly different target audiences on the part of both types of hospitals.

Generally, however, the target audiences for programs were comparable for the two types of hospitals. Hospital employees represented the target audience for whom the most programs were directed, but nonpatients or community members were served by at least seventy percent of both nonprofit and proprietary institutions. Corporate employees were served least by both hospital types, and this is consistent with the finding that health promotion programming is regarded as a needed community service and a public relations tool but not a means of generating revenue.



The fact that employees represent the largest target group for hospital health promotion programs may indicate that hospitals are like any other company in focusing concern on their own workers. The motivation may be to minimize absenteeism and maximize productivity, thus saving the hospital money in the long run. However, in looking at the total number of programs offered for all target audiences, about one-third are offered for employees, but almost twenty-five percent are offered for community members. This may be indicative of the fact that programs are tried out on employees first before being offered to the public. If, in the future, the ratio of community programs to employee programs increases, this supposition would be verified.

There appeared to be a lack of central coordination for some hospital health promotion programs, as over twenty-seven percent of all hospitals indicated that more than one department was in charge of such programs. This is related to the finding that more than half of both types of hospitals surveyed did not have a program director for health promotion. When a director was present, those individuals in nonprofit hospitals spent more time on health promotion programming than their counterparts in proprietary hospitals. In further analyzing the data, however, this variation was found to be due to size, as a considerable number of nonprofit hospitals were larger than the for-profit institutions. One researcher found that as programs evolve and become more successful, they are likely to be more organized and acquire departmental status (Longe, 1985). Since it is not known how long most programs have been operating, this factor should also be considered.

A majority of both types of hospitals responded that no other full-time personnel besides the director were involved in health promotion. Accordingly, nurses, nutritionists, and physicians were named as the staff members who most frequently participated in programming. Thus, health promotion programs appear to be run with

existing hospital personnel. Similar findings were reported in the Michigan study (Pack et al., 1985). It appears that hospitals are unwilling to commit themselves to hiring more specialized personnel for this purpose, and this may be indicative of an unstable financial situation.

Health educators were utilized by about fifty percent of nonprofit and proprietary institutions alike. From the present study it was not possible to determine whether health educators were part of the regular staff but not used for health promotion or whether they were not on the staff at all. Due to the relatively small size of the majority of responding hospitals, the latter is the most likely explanation, but further research is necessary to clarify this point.

Techniques most frequently chosen by both types of hospitals to modify behavior included use of audio-visual materials, written materials, lecture classes, and discussion groups. More active methods such as self-contracting and role-play were not utilized to any great extent. This may be due to the fact that health educators are not involved as much as other types of staff members, and it may indicate a need for more specialized personnel who have experience in behavior modification techniques.

Additionally, most of the program evaluation done was concerned with check on attendance, knowledge testing, or satisfaction surveys, and few hospitals addressed behavior change itself. This may be further confirmation of the need for more involvement on the part of health educators.

In spite of the fact that health promotion was seen as a needed community service, proprietary hospitals were significantly less likely to consult with volunteer health organizations than were nonprofit institutions. Nonprofit hospitals were somewhat more likely to consult with county health departments, but neither group of hospitals used

marketing research specialists to any great extent. Practicing physicians provided the most input for both hospital types.

This indicates a need for assessment within the community itself. A previous study dealing with hospital health education recommended establishing better communication with voluntary health organizations and more cooperative efforts within the community (AHA, 1979b), and this appears to apply to current health promotion offerings, especially in the case of proprietary hospitals.

There appears to be some type of coordination between the hospital and the community in that several of the programs offered most by other organizations are offered least by hospitals. Examples are alcohol abuse, drug abuse, and family planning. However, there also seems to be some overlap in that programs such as weight control, stress management, and first aid are offered both by hospitals and other community organizations. Other programs such as elder fitness and physical fitness do not appear to be offered much at all. Perhaps there is not a demand for such programs, but it may indicate a greater need to identify health concerns for specific target populations on the part of both types of hospitals.

Most hospitals did not have specialized facilities for health promotion, such as a walking/jogging trail or exercise equipment, but where these were present, they were mainly accessible to staff only and not the general public. Perhaps hospitals should examine further how such facilities could be used by the community at large.

The present research effort was conducted as a baseline study to determine the extent of involvement of North Carolina hospitals in health promotion. While it was discovered that almost all hospitals offered at least one type of program, the quality of these programs was not determined. If programs are carefully planned and monitored, they could make a significant contribution to meeting health promotion needs of the

community at large. Further investigation is needed before such conclusions could be drawn.

## XII. SUMMARY

This chapter contained an analysis of the data collected from a survey mailed to the one hundred and twenty-eight acute care hospitals in the state of North Carolina. After a brief description of the study population, current health promotion offerings of the responding hospitals were reported. Attitudes of hospital administrators toward providing health promotion programs were discussed, as well as target audiences for such programming. Management and organization of health promotion programs were considered along with the staff utilized for presenting programs. Data on financing of health promotion programs and the influence of the DRG method of reimbursement on providing program offerings were presented. In addition, methods used to modify behavior and assess change were reported, as well as means of attracting clients to programs.

Planning with other community organizations was reported. Specialized facilities for health promotion were enumerated along with a description of the availability of these for community groups. For all of these key elements of the status of health promotion programming, differences between nonprofit and proprietary hospitals were considered. All of the data was used to determine the extent of involvement of North Carolina hospitals in health promotion.

## CHAPTER V

### SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

#### I. SUMMARY

##### Purpose

The purpose of this study was to analyze the current status of health promotion programs in North Carolina hospitals in order to ascertain the influence of the type of hospital ownership upon the offering of such programs. The key elements used in defining the status of health promotion programs were the following: number and types of programs, target audiences, coordination of programs within the hospital, planning with other community organizations, methods of financing, types of health personnel involved in teaching, use of evaluation techniques, and methods used to modify behavior. One hundred and twenty-eight short-term community hospitals were surveyed by mail in order to obtain this information.

##### Importance of the Study

Hospitals have begun to be recognized as playing an important role in health promotion activities. Several surveys conducted in the early 1980s indicated that hospitals were broadening the base of their educational activities to include community members and business employees in addition to patients. Health promotion has been shown to influence health care costs, and the curbing of such costs has become an absolute necessity. Programs that would be available to the general public at low or no cost would provide a very valuable service to the community.

While earlier surveys indicated that health promotion programs offered by hospitals appeared to be increasing, several other recent trends may have the opposite influence. These are: cost-cutting measures necessitated by the DRG system of

reimbursement for medical expenses, and the increasing number of community hospitals that have been taken over by corporations and turned into profitmaking ventures. It was considered essential to ascertain the effect of these trends upon the current offering of health promotion programs. No hospital survey to date has addressed the influence of type of hospital ownership on the offering of such programs. It was important to determine whether proprietary hospitals saw their role differently than did nonprofit institutions.

Additionally, the literature indicated a paucity of information on health promotion in North Carolina hospitals. A determination of the programs and target populations served by hospitals could be used to assist in community-wide planning of health promotion.

Specifically this study attempted to answer the following questions:

1. What percentage of hospitals in North Carolina offer health promotion programs?
2. Are health promotion offerings likely to increase?
3. Is health promotion seen primarily as a public relations tool, a revenue generator, or a needed community service ?
4. What types of health promotion programs are most frequently offered by hospitals?
5. What target audiences are served by health promotion programs?
6. Which department in the hospital is responsible for coordination of health promotion programs?
7. Do most hospitals have a director for health promotion programming ?
8. What other members of the hospital staff actively participate in the offering of health promotion programs ?

9. How are health promotion programs financed ?
10. Have the DRGs affected the offering of health promotion programs ?
11. What methods are used to modify behavior and then evaluate the results ?
12. What other organizations are consulted in program planning ?
13. What specialized facilities are available for health promotion, and who would have access to these ?
14. Are there differences between proprietary and nonprofit hospitals in regard to any of the above ?

### Methodology

All 128 short-term community hospitals in North Carolina were surveyed by mail using an instrument previously designed by Deniston, Pack, and Beery (see Appendix B). Names were obtained from the *1988 North Carolina Hospital Association Directory* and the *American Hospital Association Guide to the Healthcare Field*. An announcement of the forthcoming survey appeared in the November 4th, 1988 edition of Newsline, published by the North Carolina Hospital Association. Telephone contact was made with 89 percent of the hospitals in order to obtain the name of a specific person to whom the survey would be addressed. The initial surveys were sent out in November 1988.

Nonrespondents were recontacted and sent an additional survey. A waiting period of one month after the second deadline was allowed before processing of any returns. The results were coded into data files on the VAX at the Computer Center of Western Carolina University. Statistics were computed using the SPSS-X program.

A random sample of nonrespondents was questioned in order to determine if they differed significantly from the study population. There did not appear to be any major differences, as ninety percent of this group offered health promotion programs.

## II. FINDINGS

Based on analysis of the data, the findings of this investigation are presented as follows:

1. Over 95 percent of nonprofit hospitals and 100 percent of proprietary hospitals offer at least one type of health promotion program. Neither the type of ownership nor the size of hospitals influence the offering of programs.
2. New programs are planned by 75 percent of the nonprofit and 76.9 percent of proprietary hospitals. Only 6.3 percent of the nonprofit hospitals plan to discontinue any programs, while 23.1 percent of the proprietary hospitals plan to discontinue at least one program.
3. Both nonprofit and proprietary hospitals saw health promotion as a public relations tool, with a mean score of 3.3 for nonprofit and 3.1 for proprietary institutions. Health promotion was also seen as a needed community service, with a mean score of 3.0 for non-profit and 3.1 for proprietary hospitals. It was not seen primarily as a revenue generator, however, as a mean score of 1.9 was obtained for nonprofit hospitals and 2.2 for proprietary hospitals.
4. For both nonprofit and proprietary institutions, the top programs were First Aid/CPR and AIDS education, which were offered by more than 79 percent of the responding hospitals. These were followed closely by Nutrition, Breast Self-Exam, Smoking Cessation, and Stress Management, all offered by at least 53 percent of both types of hospitals. Family Planning and Elder Fitness were offered least by all hospitals. Some differences were noted in the offering of programs by the two different types of hospitals.



5. The most popular target audience was hospital employees, served by 100 percent of all responding hospitals. Nonpatients were served by at least 71 percent of both types of institutions, while corporate employees were served least by both. Many programs were aimed at specific target populations, while others were offered equally for several groups.
6. The response chosen most often for a coordinating department was "more than one." Results were similar for both nonprofit and proprietary hospitals. The next most frequent response was Inservice, followed by Nursing. No significant differences were noted between nonprofit and proprietary hospitals.
7. Slightly less than half of both nonprofit and proprietary hospitals had a program director for health promotion programming. The most frequently used titles for this position were Education Director, Inservice Director, and Community Care Coordinator.
8. For the majority of both nonprofit and proprietary hospitals, the director of health promotion devoted between one to thirty percent of his time on such programming. However, for 44 percent of the nonprofit hospitals, the director spent between 70 and 100 percent of this time on health promotion, and this was not the case for any proprietary hospitals.
9. Nurses were participating staff members in 81 percent of the responding nonprofit hospitals and 92.3 percent of proprietary hospitals. Nutritionists and physicians were used by over 60 percent of both types of hospitals. Health educators participated in programs in approximately 50 percent of all hospitals.

10. For nonprofit hospitals, the most frequently used means of financing was a small fee to participants, while the majority of proprietary hospitals charged no fees, as program costs were absorbed by the individual hospitals.
11. Over 61 percent of nonprofit and 86 percent of proprietary hospitals indicated that health promotion offerings have remained the same after the inception of the DRGs.
12. Audiovisual materials, written materials, lecture classes, and discussion groups were techniques used to modify behavior by 70 percent of the responding hospitals.
13. Checks on attendance were used by 86 percent of the nonprofit and 76 percent of the proprietary hospitals. Satisfaction surveys and knowledge testing were also used as means of program assessment by a large number of hospitals.
14. Practicing physicians were used most by both nonprofit and for-profit hospitals in program planning. Volunteer organizations were consulted to a greater degree by nonprofit than proprietary hospitals.
15. The majority of responding hospitals had no specialized facilities for health promotion. Of all facilities mentioned, nonprofit hospitals were most likely to have a walking/jogging trail, and proprietary hospitals were most likely to have exercise equipment.
16. For hospitals with available facilities, hospital employees were the individuals most given access by both nonprofit and proprietary hospitals.

### III. CONCLUSIONS

Based on analysis of the findings, the following were concluded for hospitals in North Carolina:

1. Hospital ownership does not influence the offering of health promotion programs.
2. Size does not influence the offering of health promotion programs.
3. Hospital health promotion offerings will increase in the future.
4. Hospitals do not expect to make money on health promotion programs. Programs are offered mainly as a public relations tool and a needed community service.
5. Hospital employees are the main target group for programs. Other target audiences vary with the type of program.
6. There are some differences in the types of programs offered by nonprofit and proprietary hospitals.
7. Overall coordination of programs is lacking.
8. Health promotion programs are run with existing hospital personnel rather than hiring more highly specialized staff for this purpose.
9. Proprietary hospitals are less likely to charge a fee for health promotion programs.
10. The DRGs have not had a limiting effect on the offering of health promotion programs by either nonprofit or proprietary hospitals.
11. Both types of hospitals need to develop better evaluation techniques.
12. Nonprofit hospitals have more input from the community in making decisions about health promotion than do proprietary institutions.

13. The trend toward an increasing number of proprietary hospitals will not adversely affect the availability of hospital health promotion programs.

#### IV. RECOMMENDATIONS

The following recommendations are offered after careful study of these findings and in accordance with the stated conclusions of this study:

1. As program offerings appear to be increasing, further study is needed as to the best means of organization within the hospital setting.
2. If health promotion is to be offered as a community service, there should be more of an attempt to receive input from and coordinate with local groups such as volunteer health organizations and county health departments.
3. Needs assessments for specific target populations should be conducted in order to address the most pressing health concerns and to avoid duplication of programs already offered in the community.
4. There needs to be more emphasis on active means of behavior modification rather than reliance upon presentation of health knowledge.
5. Further study of evaluation techniques is necessary in order to determine the effectiveness of program offerings.
6. There should be further study of alternate means of funding for programs so that health promotion could become more available to the general public.
7. The more widespread use of health educators is recommended, as existing hospital personnel may not necessarily be familiar with educational and assessment techniques.

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## APPENDICES

- A. Letter of Permission
- B. List of Jurors
- C. Questionnaire for Jurors
- D. Cover Letter
- E. Survey Announcement
- F. Survey Instrument

## APPENDIX A



SCHOOL OF NURSING AND HEALTH SCIENCES  
MEDICAL TECHNOLOGY PROGRAM  
(704) 227-7113/7114

May 6, 1987

Lynn Deniston  
School of Public Health  
University of Michigan  
Ann Arbor, MI 48109

Dear Ms. Deniston:

I am working on a project to study health promotion in hospitals in North Carolina, and your article in Patient Education and Counseling, 7, 1985, was of great interest to me. Would it be possible to obtain a copy of your instrument for possible use in North Carolina? I would appreciate any other advice or information you could give me. I plan to start working on this during the summer.

Thank you for your assistance. I look forward to hearing from you.

Sincerely,

*Christine Stevens*

Christine Stevens

CS/lf

*Dear Christine,*

*Sorry for the delay - your request came at a bad time! (and got covered up!) we tried a more comprehensive, and complicated, revision in 1986 which didn't get as good a response rate. I've been less involved in-hat - for info. call Kathy Arnold, now with the North Dept. of Public Health, at 517-335-8884, but continuing to work on the follow-up of more Q's, please write again.*

CULLOWHEE, NORTH CAROLINA 28723

Western Carolina University is one of the sixteen senior institutions of The University of North Carolina and an affirmative action equal opportunity employer.

*Sincerely Lynn Deniston*

## APPENDIX B

## Juror For the Survey Instrument

Dr. Walter Foegelle  
Director, Health Services Management/Supervision  
Western Carolina University  
Cullowhee, NC 28723

Dr. Donald O'Neal  
Director, Infirmary  
Western Carolina University  
Cullowhee, NC 28723

Dr. Robert Pittman  
Department of Administration, Curriculum and Instruction  
Western Carolina University  
Cullowhee, NC 28723

Ms. Helen Kosick  
Associate Chief of Nursing Education  
V.A. Medical Center  
Asheville, NC 28805

Ms. Anne Loggans  
Director, Women's Health Promotion Center  
University of Tennessee Medical Center  
1924 Alcoa Highway  
Knoxville, TN 37920

## APPENDIX C

## QUESTIONNAIRE FOR JURORS

Name \_\_\_\_\_

1. Are the survey instructions clear?
2. Are all questions clearly worded and easily understandable? If not, explain:
3. Is the order of questions logical?
4. Is the format of the chart on health promotion programs simple to follow and does it facilitate ease of response?
5. Are there other programs that should be included?
6. Are the questions asked the most relevant ones for obtaining information about health promotion programs?
7. Do you have suggestions for other questions that should be included?
8. Do you have any additional comments or corrections?

THANK YOU FOR YOUR HELP AND YOUR TIME



## APPENDIX D



SCHOOL OF NURSING AND HEALTH SCIENCES  
MEDICAL TECHNOLOGY PROGRAM  
(704) 227-7113/7114

November 11, 1988

Dear :

The enclosed survey instrument concerning hospital health promotion programs is part of a study which is sponsored cooperatively by the Department of Health, Leisure and Safety at the University of Tennessee-Knoxville and the Department of Medical Technology at Western Carolina University. The purpose of the study is to determine the status of health promotion programs in acute care hospitals in North Carolina. As recently discussed in NCHA's **NEWSLINE**, key considerations will be methods of financing, health personnel involved, target audiences, and range of programs in order to ascertain the hospital's role in providing such programs for the general public.

Based upon your current position, your response will contribute significantly to obtaining an accurate picture of the extent of involvement of hospitals in health promotion activities. It would be appreciated if you would complete the enclosed form by November 30, 1988, and return it in the stamped envelope provided.

All information will be held in strictest confidence. If you have any additional comments, please include these in the section at the end of the questionnaire.

I may contact you at a future date about your willingness to supply information for a directory of hospital health promotion programs. If you desire, I will be happy to send you a summary of the current survey results. Thank you for your assistance.

Sincerely,

Christine Stevens  
Assistant Professor

CS/lr

Enclosure

CULLOWHEE, NORTH CAROLINA 28723

Western Carolina University is one of the sixteen senior institutions of The University of North Carolina and an affirmative action/equal opportunity employer.

## APPENDIX E



# NewsLine

November 4, 1988

## PDS REPORTS RESPOND TO PUBLIC DISCLOSURE

The North Carolina Hospital Association and Datis Corp. have announced a new set of reports specifically designed to assist hospitals in responding to public disclosure of their data by the N.C. Medical Database Commission. Hospitals in NCHA's Patient Data System are now receiving details on the reports in a separate mailing. A discount is available for reports ordered by November 30. For more information, call Lynne Nelson at 919/832-9550. (HAUGE)

## CAROLINAS HEALTH CARE CONFERENCE FOCUSES ON MANPOWER

The Fifth Annual Carolinas Health Care Conference will be held December 7 - 8 in Charlotte. This year's conference, entitled "Scarce Human Resources: A Recurrent Hospital Problem," is sponsored by The Duke Endowment, NCHA and the S.C. Hospital Association. Topics include: "Issues in Recruitment, Retention and Utilization," "Health Careers: Idealism Versus Reality" and "Issues of Educational Preparation." Registration spaces at the conference are available. The Endowment originally asked that institutions limit to two people the number of representatives attending the conference. However, institutions may send more than two people as long as space remains available. For more information about the conference, call The Endowment at 704/376-0291.

## SCHEDULE UPDATE ON LEGISLATIVE DINNERS

There have been schedule changes in the upcoming series of legislative dinners, and three dates that appeared in last week's *NewsLine* were incorrect. The correct dates are: November 3 — dinner meeting at Albemarle Hospital in Elizabeth City; December 12, dinner meeting at Catawba Memorial Hospital in Hickory; and December 14, dinner meeting at Memorial Mission Medical Center in Asheville. The dinners, hosted by NCHA member hospitals, provide an opportunity for hospital chief executives, administrative staff and trustees to meet with legislators and discuss pertinent health care issues. (PULLY)

## WCU CONDUCTS HOSPITAL SURVEY

A survey on hospitals offering health promotion programs is being conducted by Western Carolina University and the University of Tennessee. Information obtained in the survey will be used to determine the extent of involvement of short-term, acute care hospitals in providing health promotion programs for patients, employees and the general public. Surveys will be mailed separately by Western Carolina University. For more information, contact Christine Stevens at WCU's Medical Technology Program, 704/227-7113.

## TIME TO HONOR HOSPITAL VOLUNTEER PROGRAMS

Nominations are due February 1 for the sixth annual AHA Hospital Awards for Volunteer Excellence. Up to nine awards will be given for hospital



## **North Carolina Hospital Association**

Post Office Box 10937 • Raleigh, North Carolina 27605 • Phone: 919/832-9550

## APPENDIX F

## Health Promotion Survey

### Survey Instructions:

For purposes of this survey, please adhere to the following definitions for *health promotion* and *health promotion program*:

**Health promotion** is any attempt to influence individuals to adopt and maintain healthy lifestyles, frequently requiring the relinquishment of unhealthy behaviors. It includes those activities designed for basically healthy populations in order to reduce the risk of future illness or debility conditions. These activities, however, *must* include more than the mere sharing of health information.

A **health promotion program** encompasses planned and coordinated activities which are structured to both present health information plus achieve positive behavioral changes in participants. (See listing on page 2 for examples)

Please answer the following questions as they relate to your hospital's health promotion programs:

- |                                                                                                  | Yes   | No    |
|--------------------------------------------------------------------------------------------------|-------|-------|
| 1. Does your hospital currently offer health promotion programs?                                 | _____ | _____ |
| 2. Does your hospital plan to begin any new health promotion programs within the next 12 months? | _____ | _____ |
| 3. Do you plan to discontinue any of your existing programs over the next year?                  | _____ | _____ |
| 4. Have you offered any programs that have been discontinued within the last five years?         | _____ | _____ |

Please rate questions 5-7 independently of each other.

- |                                                                                                                                                 | High  |       | Low   |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| 5. To what extent is your hospital's health promotion program viewed by hospital administrators as a public relations/patient recruitment tool? | 4     | 3     | 2 1   |
|                                                                                                                                                 | _____ | _____ | _____ |
| 6. To what extent are health promotion programs viewed by the hospital administration as a revenue generator?                                   | _____ | _____ | _____ |
| 7. To what extent are health promotion programs viewed by hospital administrators as a needed community service?                                | _____ | _____ | _____ |

8. Which department in the hospital is responsible for coordinating health promotion programs?

☐ Health Education  
☐ Nursing  
☐ Inservice  
☐ Other (Please indicate) \_\_\_\_\_

## 9. HEALTH PROMOTION PROGRAMS

Indicate by placing a check in the appropriate box which programs your hospital regularly offers (at least once a year) and for whom they are offered. (Check as many boxes as are appropriate)

| PROGRAM TYPE         | In-Patients | Out-Patients | Non-Patients/<br>Community Members | Hospital Employees | Corporate/<br>Business Employees | No. of Times Offered per Year | Other Community Group Offers | Not Offered in Community |
|----------------------|-------------|--------------|------------------------------------|--------------------|----------------------------------|-------------------------------|------------------------------|--------------------------|
| Aerobic Dance        |             |              |                                    |                    |                                  |                               |                              |                          |
| AIDS Education       |             |              |                                    |                    |                                  |                               |                              |                          |
| Alcohol Abuse        |             |              |                                    |                    |                                  |                               |                              |                          |
| Breast Self-Exam     |             |              |                                    |                    |                                  |                               |                              |                          |
| Drug Abuse           |             |              |                                    |                    |                                  |                               |                              |                          |
| Elder Fitness        |             |              |                                    |                    |                                  |                               |                              |                          |
| Family Planning      |             |              |                                    |                    |                                  |                               |                              |                          |
| First Aid/CPR        |             |              |                                    |                    |                                  |                               |                              |                          |
| Hypertension Control |             |              |                                    |                    |                                  |                               |                              |                          |
| Nutrition            |             |              |                                    |                    |                                  |                               |                              |                          |
| Physical Fitness     |             |              |                                    |                    |                                  |                               |                              |                          |
| Postnatal Education  |             |              |                                    |                    |                                  |                               |                              |                          |
| Prenatal Education   |             |              |                                    |                    |                                  |                               |                              |                          |
| Smoking Cessation    |             |              |                                    |                    |                                  |                               |                              |                          |
| Stress Management    |             |              |                                    |                    |                                  |                               |                              |                          |
| Weight Control       |             |              |                                    |                    |                                  |                               |                              |                          |
| Other (Please List): |             |              |                                    |                    |                                  |                               |                              |                          |
|                      |             |              |                                    |                    |                                  |                               |                              |                          |
|                      |             |              |                                    |                    |                                  |                               |                              |                          |
|                      |             |              |                                    |                    |                                  |                               |                              |                          |
|                      |             |              |                                    |                    |                                  |                               |                              |                          |

10. a) Is there a program director for health promotion offerings? Y N  
 b) Title (please indicate) \_\_\_\_\_  
 c) What percentage of this person's time is devoted to health promotion programming? \_\_\_\_\_
11. How many other full-time personnel or full-time equivalents (FTE) are involved in health promotion? \_\_\_\_\_
12. How have the DRGs affected the offering of health promotion programs?  
 \_\_\_\_\_ Program offerings have increased  
 \_\_\_\_\_ Program offerings have decreased  
 \_\_\_\_\_ Program offerings have remained the same
13. What other members of the hospital staff actively participate in health promotion programs? (Check as many as apply)  
 \_\_\_\_\_ Physicians  
 \_\_\_\_\_ Nurses  
 \_\_\_\_\_ Physical therapists  
 \_\_\_\_\_ Nutritionist/Dietitian  
 \_\_\_\_\_ Health Educators  
 \_\_\_\_\_ Pharmacists  
 \_\_\_\_\_ Social Work Staff  
 \_\_\_\_\_ Psychologists  
 \_\_\_\_\_ Auxiliary/volunteers  
 \_\_\_\_\_ Laboratory Personnel  
 \_\_\_\_\_ X-ray Personnel  
 \_\_\_\_\_ Medical Library Staff  
 \_\_\_\_\_ Community Support Groups  
 \_\_\_\_\_ Other \_\_\_\_\_
14. How are health promotion programs financed?  
 \_\_\_\_\_ Cost covered entirely by fees to participants  
 \_\_\_\_\_ Cost covered by daily room charges  
 \_\_\_\_\_ Grant to the hospital  
 \_\_\_\_\_ Specific fund-raising activities  
 \_\_\_\_\_ Small fee with most of cost absorbed by the hospital  
 \_\_\_\_\_ Other \_\_\_\_\_
15. Which of the following methods are used for program evaluation? (Check all that apply)  
 \_\_\_\_\_ Attendance  
 \_\_\_\_\_ Knowledge testing  
 \_\_\_\_\_ Telephone interview  
 \_\_\_\_\_ Satisfaction survey  
 \_\_\_\_\_ Post program session  
 \_\_\_\_\_ Questionnaire on compliance  
 \_\_\_\_\_ Check on employee absenteeism  
 \_\_\_\_\_ Behavior inventories  
 \_\_\_\_\_ Monitoring health care utilization after program  
 \_\_\_\_\_ Other \_\_\_\_\_
16. In planning programs, which of the following are consulted? (Check as many as apply)  
 \_\_\_\_\_ Professional associations  
 \_\_\_\_\_ Volunteer health organizations  
 \_\_\_\_\_ Marketing research specialists  
 \_\_\_\_\_ Practicing physicians  
 \_\_\_\_\_ County health department  
 \_\_\_\_\_ Medical records personnel  
 \_\_\_\_\_ Other \_\_\_\_\_



17. Methods used to modify participant behavior: (Check all that apply)

- ☐ Health Risk Assessment
- ☐ Audio-visual materials
- ☐ Discussion groups
- ☐ Counseling
- ☐ Demonstrations
- ☐ Self-contracting
- ☐ Written materials provided
- ☐ Role-play/modeling
- ☐ Lecture classes
- ☐ Computer-assisted health instruction
- ☐ Other \_\_\_\_\_

18. Methods used to attract potential clients to health promotion programs: (Check all that apply)

- ☐ Health Fairs
- ☐ Screening Clinics
- ☐ Referral from Physicians
- ☐ Advertising
- ☐ Other \_\_\_\_\_

19. Which of the following facilities does your hospital have? (Check all that apply)

- ☐ Walking/jogging trail
- ☐ Fitness trail
- ☐ Weight room
- ☐ Exercise equipment
- ☐ Other \_\_\_\_\_
- ☐ None of these

20. Who would have access to the above facilities? (Check all that apply)

- ☐ Hospital employees
- ☐ Fee-paying members
- ☐ General public
- ☐ Other \_\_\_\_\_
- ☐ Not applicable

21. Additional Comments:

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Hospital Name and Address:

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Size of Hospital:

- ☐ Fewer than 100 beds
- ☐ 100 to 199 beds
- ☐ 200 to 299 beds
- ☐ 300 to 399 beds
- ☐ 400 to 499 beds
- ☐ Over 500 beds

Type of Hospital:

- ☐ Non government/non-profit
- ☐ For profit (investor owned)
- ☐ Federal
- ☐ State/local government

AHA Services Coding \_\_\_\_\_

THANK YOU FOR YOUR ASSISTANCE.

Please return the completed survey to:

Christine Stevens  
Medical Technology Program  
Western Carolina University  
Cullowhee, NC 28723

## VITA

Christine Dorresteyn-Stevens is the daughter of Dirk and Greyce Dorresteyn and a native of Malverne, New York. She graduated from Clark University in 1965 with a Bachelor of Arts degree in Biology. While at Clark, she was elected to Phi Sigma Tau and Phi Beta Kappa.

In the fall of 1965, she received a United States Public Health Service Fellowship to attend Duke University and study Microbiology. A Master's degree was awarded in 1968.

After teaching part-time in the Health Sciences for a number of years, the author entered graduate school at the University of Tennessee in 1986 to pursue a Doctor of Education degree in Health Education. She was elected to Pi Lambda Theta and Phi Kappa Phi.

She currently resides in Cullowhee, North Carolina with her husband, Charles, and sons, Eric and Kevin. She is employed as an assistant professor in the School of Nursing and Health Sciences at Western Carolina University.