# A STUDY OF CHARACTERISTICS OF COLLEGE HEALTH SERVICES IN THE WESTERN CHICAGO CONFERENCE ASSOCIATION

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ABSTRACT

A STUDY OF CHARACTERISTICS OF COLLEGE HEALTH SERVICES IN THE WESTERN CHICAGO CONFERENCE ASSOCIATION

By

Donald Edward Ensley

This study was conducted at eleven midwestern universities. All but one of these universities are participating members of the Big Ten, formally called the Western Chicago Conference Association. This organization of institutions represents a regional approach to health care delivery in the Midwest that is similar to the community health care delivery system at large. Furthermore, the individual college programs represent patterns common to those of other college health programs throughout the country.

The purpose of this study was to determine the influence of a selected group of components on each individual member college health program. These components were: (1) administrative patterns, (2) scope of services, (3) staffing patterns, (4) finance mechanism, and (5) eligibility. The evaluation of the quality of these components and the effect that quality has on each individual program was not the intent of this study.

It was assumed that before a systematic evaluation of quality, cost control, fiscal management, availability of services, and accessibility of services and other factors could be empirically

tested, an analysis of certain essential components of each individual health program had to be undertaken.

Data for this study were obtained from two sources: (1) mailed questionnaires and (2) interviews with health directors of the member institutions.

Since the data collected and used for this study were inclusive of all member institutions in the Midwest, a descriptive approach to statistical analysis and comparison was adopted. Therefore, data were presented in the form of frequencies and percentages.

Ideally, data and results of information yielded by this type of study will be used by: (1) college health directors; (2) universities and college administrators; (3) planners of college and university health care; (4) medical schools; (5) hospital administrators; (6) college health care auditors; (7) college health care boards; (8) college group health plans; (9) HMO developers; (10) third-party payment agencies; (11) athletic departments; (12) federal, state, and local health planners; and (13) others interested in college and university health care delivery systems.

It is further suggested that data from this study provide sample information to be used to assess and measure current program development and implementation of college and university health services. Current studies have provided sufficient information only on total college health program development and little information on implementation.

The results of this study tend to show that there was no significant relationship between the administrative pattern of college health service and the effect of each pattern on the output of services. Moreover, the majority of the institutions chose a uniform administrative pattern of independent operation within the total university health system.

The findings further indicated that although medical schools and other health professional schools did not exert a strong influence on the administrative operation of the individual universities, there was a strong influence on health boards by students, medical directors, and faculty.

The administrative line of authority from the director to the dean of students or vice-president for student affairs was the most prevalent administrative structure. In addition, each of the member institutions used a physician as chief executive director of its health program. Only one institution indicated that its chief executive director was a health professional. Furthermore, the findings showed that there was insufficient evidence to support a relationship between the size of the institution and the availability of services; but there was evidence of the influence of the population served. This influence is exerted by young adult college students who require comprehensive care, preventative care, and health education care rather than episodic care. Consequently, most member institutions provided comprehensive care and preventative care, with less emphasis on health education.

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Dedicated to "Re"--my wife, Ramona.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

# CHAPTER I

## INTRODUCTION

The increased concern about the delivery of quality health care to all segments of society has extended to and includes the student population of colleges and universities. The college health care system, like the health system at large, is confronted with increased concern for quality care, manpower shortages, fragmented and duplicated services, and escalating costs.

The acuteness of the problem has become more evident in recent years because of public belief that quality health care is a declared right of all and not a privilege. This view has necessitated a change in the health care delivery system in order to assure quality health care at a more reasonable cost. If continued, this trend will have a tremendous impact on college and university health services as well as on other organized health care systems.

According to Nonnamaker, institutions of higher learning mirror in many respects the society of which they are a part, although they are not in toto microcosms of that society. Nevertheless, college and university health services have special needs which no other delivery system is geared to meet.[1]

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[1]Eldon Nonnamker, "Health Care at Michigan State University," a position paper on College Health Services presented to the Board of Trustees of Michigan State University, August 22, 1974.

## Historical Perspective of the Problem

Although the college health service program is not new, it has emerged as one of the major health care delivery systems in the country. Health care for students had its origin at Amherst College in 1861. However, according to Boynton, as early as 1825 Harvard introduced methods of mass physical education from Germany and Scandinavia.[2] Within the next few years Dartmouth, Williams, Yale, and Amherst had instituted gymnastic programs; required physical exercise was considered the best means of improving the student's health.

> In 1856, President Stearn of Amherst stated to the trustees that: The breaking down of the health of the student, especially in the spring of the year, which is exceedingly common, involving the necessity of leaving college in many instances, and crippling the energies and destroying the prospect of not a few who remain, is in my opinion, very unnecessary if proper measures could be taken to prevent it.[3]

By 1960 gymnasiums and gymnastics equipment were common in most colleges. Today, virtually every institution of higher learning provides some form of health care to the students.

It was not until 1927 that a comprehensive study was made of student health services. This study was directed by Dr. Thomas Storey and supported by the President's Committee of Fifty on College Hygiene, an organization of college presidents and representatives, set up in 1922 to stimulate the development and extension of

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[2]Ruth E. Boynton, "The Development of Student Health Services," Student Medicine 1 (October 1952): 4-8.

[3]Alexander G. Ruthven, Address of the President of the Conference in A Health Program for Colleges, Report of the Third National Conference on Health in Colleges, May 7-10, 1947 (New York: National Tuberculosis Association, 1947), p. 7.

instruction and training in hygiene in normal schools, colleges, and universities. Storey concluded that the evidence assembled in this report points to the fact that the great majority of the institutions of higher education in the United States are not providing opportunities for a competent general education in hygiene to the young men and women who pass through them on their way to responsible citizenship. The leaders of public opinion and public action--the men and women who amend the beliefs and customs of the masses and who change the institutions, laws, ethics, and philosophies of society--are as a general rule inadequately and poorly educated in hygiene, the science and the art of preserving the health of the individual, the home, and the public. Few leaders are equipped with a knowledge of scientific hygiene, and very few are trained for leadership in hygiene. Without such leadership, progress in hygiene must be slow.[4]

Following the 1927 comprehensive report of Dr. Storey, a number of reports and conferences attempted to address the problem of student health. Ironically, the President's Commission of Higher Education in 1947 listed eleven goals of higher education, of which four included undertakings in which health services played a prominent part. These four were:

1. To understand the common phenomena in one's physical environment, to apply habits of scientific thought to both personal and civic problems, and to appreciate the implications of scientific discoveries for human welfare.

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[4]Thomas Storey, "The Status of Hygiene Programs in Institutions of Higher Education in the United States," Medical Sciences 1,1 (1927): 114.

2. To improve and maintain his own health and to cooperate actively and intelligently in solving community health problems.
3. To attain a satisfactory emotional and social adjustment.
4. To acquire the knowledge and attitudes basic to a satisfying family life.[5]

However, systematic interest in college health services research began to take shape in 1953 when Norman Moore and John Summerskill[6] presented their national survey findings at the Fourth National Conference on Student Health. These and subsequent findings set the stage for a new and innovative approach toward college health services.

In 1959 the House of Delegates of the American Medical Association adopted the following recommendations of the commissions on student health services:

> Continued and intensified effort on a national level is urged to cope with the changing problems in this field. The committee recommends also that close liaison with these plans be maintained by local programs; and student health education may be developed and perfected in keeping with local practice and policies.
>
> It is suggested further that the American Medical Association intensify its activity in this field in order to keep the medical profession informed of developments.
>
> The proper relationship between the medical profession and student health services should be one comprising study and participating, encouragement and understanding, and consultation and advice.

A further statement of policy was adopted by the House of Delegates at the same time:

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[5]President's Commission on Higher Education, Higher Education for Democracy, Vol. 1, Establishing the Goals (Washington, D.C.: Government Printing Office, 1947), pp. 52-57.

[6]Ethel L. Ginsburg, The College and Student Health: Based on the Fourth National Conference on Health in Colleges (New York: The National Tuberculosis Association, 1955), p. 65.

> The American Medical Association recognizes the constructive efforts being made by educational institutions to provide medical service to students, with the observation that conditions controlling such services vary greatly, some necessitating closed panel services with limited freedom of choice of physician. It is recommended that all student health services offer the greatest possible freedom of choice of physician consistent with local conditions.
>
> It is suggested that the Department of Health Education continue the studies initiated by the Commission on Medical Care Plans in the field of student health services and offer all possible assistance, through the library and research facilities of the American Medical Association, to constituent and component societies in maintaining proper liaison with educational institutions offering student health services.[7]

As college health services continued to develop, the country's attitude toward quality health care for all began to change. Local, state, and national governments began to proclaim that health care is the right of all, not the privilege of some.

The new concept of "rights" added a new dimension to medicine and health care and provided a new thrust for college health services. Moreover, as the new federalism for medicine and health care grew, so grew an urgency for a "health partnership" relation between the academic community and the federal goverment, based upon the philosophy that such a partnership would answer the need for a health care delivery system in communities and society at large. However, during the 1960's, when the campuses were in turmoil, such a partnership was not included in the many issues addressed by the activists to the central administration. Student health care maintained a low priority among these issues, even though it was integrated within the equal rights platform of students' demands.

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[7]Dana L. Farnsworth, "College Health Services in the United States," Student Personnel Series, No. 4 (American College Personnel Association, 1965), p. 5.

Nevertheless, as students continued to mobilize and seek alternatives to the educational system, health care gradually began to emerge as an issue and is today one of the frontrunners in demands for equal rights among students, administrators, and others within the "communiversity."

Yet at the Fifth National Conference of Health Manpower in College Communities, Task Force VII presented a position paper that tends to question the role of the campus population, as advocates of rights versus privilege, in health care reform. According to the Task Force:

> . . . In the midst of this demand for change which few campuses have thus far escaped, their health services have remained practially immune even to criticism, much less disruption. It is the non-academic "off campus" bulk of the American public which is proclaiming that health care is the "right of all, not the privilege of some" and their voices, though less dramatic, have begun to be heard.

The Task Force further stipulated:

> The fact that health services reform is actively being sought . . . and obtained . . . off campus, but not even being questioned or challenged on campuses seems curious indeed. Rather than interpret this as testimony to the competence, effectiveness, or inclusiveness of the service, it is more likely a reflection of students' limited experiences with illness, and consequently their apathy over matters of health.[8]

Although in a different context, Clifton R. Wharton alluded to the crisis in health care delivery by stating that:

> The President's Commission on Health Manpower clearly chronicled many of the problems back in 1967, when it reported that 'There is a crisis in American health care; however, it is not simply one of numbers. If additional personnel are employed

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[8]American College Health Association, Task Force VII, "Health Manpower in College Communities," paper presented at the Fifth National Conference on Health in College Communities, April 14-17, 1970, p. 3.

> in the present manner within the present patterns and systems of care, they will not avert or even perhaps alleviate this. Unless we improve the system through which health care is provided, care will continue to become less satisfactory, even though there are massive increases in cost and in numbers of health personnel.'[9]

The final point listed above is quite applicable to college health care and is one that deserves special emphasis--the need to develop new systems through which health care can be provided; hence the implications for a new role model in the college health care delivery system is evident. The traditional role model of episodic medical care has faltered; consequently, some of the college and university health programs have failed to function or even to be recognized as an integral part of the educational system. But there are currently encouraging signs and initial efforts which may help bring about the necessary revolution in health care services and which may serve as prototypes for the future.

## The Problem

### Statement of the Problem

The primary purpose of this study was to investigate selected characteristics of the health delivery systems of universities in the Western Chicago Conference Association (W.C.C.A.)[10] and to make

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[9]Clifton R. Wharton, Jr., "The Black Physician in the 1970s," Address at the Public Welcome Meeting of the Seventy-Fifth Annual Convention of the National Medical Association, Atlanta, Georgia, August 4, 1970.

[10]The W.C.C.A. is an organization comprising the Big Ten Universities and the University of Chicago. The organization provide a regional approach to health care delivery in the Midwest that is different from approaches used in other areas of the country.

recommendations for improvement and further research. The specific objectives are:

1. To determine the administrative patterns of each Big Ten student health component.
2. To identify the scope of services offered by each university health system.
3. To describe the staffing patterns of each program.
4. To identify the financing mechanism of the services offered by each program.
5. To determine the eligibility of the population served by each university health component.

Rationale for the Study

There is a continuing controversy over the responsibility of the university for providing quality health care for its students. This concern was raised in the 1927 report by Storey and has continued to rage. Nonnamaker expressed this same concern by viewing responsibility of the university toward health care as a "priority necessity." He contended that activities and programs conducted by the university must ultimately be limited by the financial resources which are made available to the institution. Nonnamaker further stated that since resources are necessarily limited with respect to any health care program undertaken by the university, it is essential that priorities be developed with respect to the various components of a health care program.[11]

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[11]Nonnamaker, "Health Care at Michigan State University," p. 1.

Edward Hurtado voiced a similar concern for medical responsibilities of colleges and universities as student population increases. He pointed out that the unprecedented increase of the campus population, the heterogeneity of student bodies, and a number of other smaller groups who are entitled to medical attention in one form or another have multiplied and intensified the scope and volume of medical responsibilities on campus.[12]

Alan Bloom, from a different vantage point, viewed federal health legislation--particularly the Health Maintenance Organization Act--as another factor affecting the college health care delivery system. He proposed that the HMO Act provides a real opportunity for the sharing of costs and manpower and deserves careful examination by all involved in health services.[13]

As these views continue to be echoed, and to influence the current college health system, undoubtedly the passage of the Health Maintenance Organization Act and the pending National Health Insurance Act will have profound impact on the college health care delivery system. Since the current health scene has rallied around the new health legislation that encompasses the HMO Act and the National Health Insurance Act, the need for this study is imperative,

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[12]Edward Hurtado, "Contemporary Evolution of College Health Service," Journal of the American College Health Association 17 (April 1963): 298.

[13]Alan Bloom, "The HMO and College Health Services," Journal of the American College Health Association 21 (December 1972): 115.

although no attempt has been made to analyze the influence of the legislation on the collegiate health system.

Data compiled in this study could be used to: (1) serve as a background for further research into the influence of federal health legislation in schools in the Western Chicago Conference Association's health program; (2) point out areas for developing management systems to assist in improved planning, development, accountability, evaluation, and research; and (3) suggest ways that college health services can be organized or developed more efficiently within the W.C.C.A.

## Definitions

The following definitions are considered basic to the understanding of this study:

Health (according to the World Health Organization of the U.N.)--"A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

H.M.O. (Health Maintenance Organization)--The term "health maintenance organization" is specifically defined in the Health Maintenance Act of 1973 (Public Law 93-222) as a legal entity or organized system of health care that provides directly or arranges for a comprehensive range of basic and supplemental health care services to a voluntarily enrolled population in a geographic area on a primarily prepaid and fixed periodic basis.

Clinic (also health center)--A facility for the provision of preventative, diagnostic, and treatment services to ambulatory patients, in which patient care is under the professional supervision

of persons licensed to practice medicine in the political jurisdiction where the facility is located.

Comprehensive care--Provision of a broad spectrum of health services, including physicians' services and hospitalization, required to prevent, diagnose, and treat physical and mental illness and to maintain health.

Coverage--In general, services or benefits provided, arranged, or paid for through a health insurance plan or the people eligible for care under such a plan. More specifically, a package of specified benefits (federal program--high option; premium plan; etc.).

Comprehensive medical care plans--Plans providing a wide range of care, including physicians' services in the home, in the office or clinic, and in the hospital. The benefits typically include hospitalization.

Enrollee (also beneficiary, eligible individual, member, participant)--Any person eligible as either a subscriber or a dependent for service in accordance with a contract.

Fee-for-service--With respect to the physician or other supplier of service, this refers to payment in specific amounts for specific services rendered--as opposed to retainer, salary, or other contract to the advance payment of an insurance premium or membership fee for coverage, through which the services or payment to the supplier is provided.

Group practice--A group of persons licensed to practice medicine in the state, who, as their principal professional activity,

and as a group responsibility, engage or undertaken to engage in the coordinated practice of their profession primarily in one or more group practice facilities; and who (in this connection) share common overhead expenses (if and to the extent such expenses are paid by members of the group), medical and other records and substantial portions of the equipment and the professional, technical, and administrative staffs.

In-patient care--Care given a registered bed patient in a hospital, nursing home, or other medical or psychiatric institution.

Out-patient care--Care given a person who is not bedridden.

Primary care--Professional and related services administered by an internist, family practitioner, obstetrician-gynecologist, or pediatrician in an ambulatory setting, with referral to a secondary care specialist, as necessary.

Third-party payment--The payment for health care when the beneficiary is not making payment, in whole or in part, in his own behalf.

Utilization--The extent to which a given group uses specific services in a specific period of time. Usually expressed as the number of services used per year per 100 or per 1,000 persons eligible for the services, but utilization rates may be expressed in other types of ratios, i.e., per eligible person covered.[14]

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[14]Group Health Association of America, An H.M.O. Dictionary (Group Health Association of America, Inc., 1717 Massachusetts Ave., N.W., Washington, D.C.).

Communiversity--The functional interrelationship not only within a college or university, but including the adjacent or nearby town, neighborhood, or even city.[15]

## Limitations

This study was concerned only with investigating the five selected characteristics of the health care delivery system of universities in the W.C.C.A. and making recommendations for improvement and further research. No attempt was made to evaluate the effectiveness of the system or other components of the college health program.

To analyze the health care delivery system of the W.C.C.A. and to make recommendations for further research, it was decided that five characteristics would be investigated. In doing so, it was necessary to analyze each characteristic and its individual influence and function on the total system.

## Overview

Chapter I provided an insight into this study, as well as an exploration of some of the concerns and problems underlying the entire study. Additionally, it was necessary to explain why there is a need for this study and to outline its importance to education. It was essential that the theoretical basis upon which the study was devised be explained in some detail, followed by the rationale for

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[15]American College Health Association, Task Force VII, "Health Manpower in College Communities," p. 3.

the research. Concepts vital to the understanding of this study were explained, as were the limitations of the study.

The major part of Chapter II deals with a review of the literature related to: (1) Organizational-Administrative Patterns, (2) Utilization of Delivery of Care, and (3) Aspects in Financing Student Health Care.

The design of the study is described in Chapter III, including a description of the sample used in the study. In addition, the chapter includes the method of collecting data and a description of the instrument used in the study. A discussion of methods of administration of the instrument and its scoring is followed by a statement of the statistical methodology used.

Chapter IV includes an analysis of the data, whereas Chapter V is devoted to a discussion of the data.

Chapter VI contains a summary of the study and the conclusions reached. Concluding the chapter are implications and a list of recommendations for further study.

Having presented the purpose of this study, its need, its analysis, and its theoretical base, it is now essential that a review of the relevant literature be undertaken.

# CHAPTER II

## REVIEW OF RELATED LITERATURE

Although there have been several investigations of college and university student health services, few studies have focused specifically on the system itself and how it impacts on each administrative function that governs the output of the services. The survey method has been utilized most frequently to determine the scope of these services. Several general studies have dealt with the types of services rendered and the organizational-administrative patterns of the overall college health program, with emphasis on the comprehensiveness of these services. However, there is little evidence to show the total interaction of each component on the overall organizational-administrative structure.

This chapter includes a search of relevant literature on college and university student health services. The literature has been selected according to its contribution to one of three categories significant to the treatment of this investigation. These categories are:

Organizational-Administrative Pattern--This category includes studies that present a comprehensive analysis of health services in colleges and universities, and their organizational relationships.

Utilization of Delivery of Care--This category focuses on studies which present an analysis of the delivery system, including personnel.

Aspects of Financing Student Health Care--This category includes studies that present an analysis of the financial mechanisms of college health care systems.

## Organizational-Administrative Pattern

Research interest in the effect of organizational-administrative pattern on the delivery of health care for college students has been somewhat limited. In 1914 Warren Forsythe conducted the first systematic study of college facilities.[1] He validated the "need for research analysis" of different organizational-administrative patterns of health facilities of several colleges and universities. However, his study did not analyze each pattern according to its function in the overall health system. Forsythe concluded that: (1) there should be a full-time physician, (2) a well-organized health facility should exist, (3) provision for bed patients should be provided, (4) services paid for by students through general tax should be provided, (5) broad health education instruction should be conducted, and (6) good medical examination for all entering students should be established.[2] This single study was the first organized research conducted to analyze the health services of colleges and universities.

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[1]Warren E. Forsythe, "Health Services in American Colleges and Universities," Journal of American Medical Association 63 (1914): 1926-30.

[2]Ibid., pp. 1929-30.

Following the Forsythe study, a series of surveys were conducted. Of these, the 1950 study by Frank Dickinson and Everett Welker[3] and the 1953 study by Moore and Summerskill[4] established a basis for further research on college health services.

In the 1949-50 study by Dickinson and Welker,[5] a twelve-page mailed questionnaire was utilized, involving 1,124 universities and colleges, with a return of 462 usable questionnaires. The results of this study provided an organizational-administrative framework of college health services.

The study was organized into six topical areas: (1) General Information; (2) Health Services Staff and Persons Eligible for Services; (3) Services, Personnel, and Facilities of the Health Services and Utilization; (4) Premiums, Free and Other Methods of Financing; (5) Financial Data; and (6) Environmental Sanitation. This survey structure allowed for the interpretation of the findings to imply a comprehensive "working model," complementing the organizational-administrative patterns of colleges and universities surveyed.

Dickinson and Welker's major conclusions were: (1) There exists a great variation in the facilities, personnel, and services

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[3]Frank G. Dickinson and Everett L. Welker, "Second Survey of University and College Health Services: 1949-1950," Bureau of Medical Economic Research, American Medical Association, Bulletin 88 (1952).

[4]Norman S. Moore and John Summerskill, Health Services in American Colleges and Universities, 1953: Findings of the American College Health Association Survey (Ithaca, New York: Cornell University Press, 1954).

[5]Dickinson and Welker, "Second Survey," pp. 1-28.

available to the students; (2) Some checks on the health of new students were made by almost all colleges having college health services; (3) The larger colleges provide more inclusive health services for students; and (4) Student health services are usually financed by a special fee (48 percent) or by a fee included in tuition.[6] Thus the findings provide an analysis of health services rendered, with each service interacting within the comprehensive organizational-administrative pattern of the colleges and universities surveyed.

According to Moore and Summerskill,[7] there is no uniform or standard health program for college students. This important finding was the result of a study conducted in 1953 by survey and personal interviews. Statistically, 1,057 directors of health services were personally interviewed and 1,157 colleges surveyed. Moore and Summerskill found that the percentage of colleges with comprehensive clinical programs does not vary much from one region of the country to another, nor with respect to the location of the institution (i.e., rural area or small or large city) and that there was a significant correlation between the quality of health programs and the academic standing of colleges.

Moore and Summerskill's major conclusions were: (1) Two hundred of the 1,157 colleges contacted do not assume responsibility for health of students in any way; (2) Certain specific services are found at a majority of the 957 colleges with a health program, whereas

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[6]Ibid., pp. 1-28.

[7]Moore and Summerskill, Health Services, pp. 1-108.

other specific services and procedures are found only sporadically throughout the country; (3) Among the most common health procedures for protecting campus health is the requirement of a physical examination for entering students; (4) Most clinical services are extended to all students, and these services are used by a majority of students at most colleges; (5) Nearly 80 percent of health services have a staff physician--typically, one part-time physician only. Full-time nurses are employed by 70 percent of the health services; (6) Full-time physicians are found at 21 percent of the health services and various medical and nonmedical specialists are employed by not more than 20 percent of the health services; (7) Public colleges (e.g., state, federal, city, county) are most likely to offer some of the important health services investigated; and (8) The widest differences in student health services are related to the size of enrollment at a college. The data show that the larger the institution the greater is the probability that a health service exists and the more comprehensive are the services, facilities, and medical staff available.[8]

The results of the study permitted a very sophisticated finding that rendered a comprehensive focus on organizational-administrative patterns and types of services within college and university health services.

Dana Farnsworth viewed the organizational-administrative structure of college health programs to be as fundamental to effective operation of the schools as libraries, laboratories, or athletic

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[8]Ibid., pp. 101-102.

programs.[9] He pointed out that health service directors share in the consensus that the appropriate position of a health service in the administrative structure of a college or university is that of a separate department or division--more or less parallel with the organization headed by the dean of students--with the director reporting directly to the president or, in the very large university, to the vice-president in charge of student affairs.[10] Farnsworth indicated that this type of organizational-administrative structure has been more advantageous than others. He contended that the reasons for health services remaining administrative independent of other personnel services are:

1. Physicians are the most highly trained of any personnel workers and consequently must have salaries higher than those of others. This often raises problems of morale when all are in a single division. Physicians must have at least five and usually six or more years of training before they assume positions in college health services. Psychiatrists must have at least seven years of training.
2. The records of health services must be kept separate from other records. The strict confidentiality required is necessary because of law, custom and demands of patients.
3. Many of the duties of a health director or his representatives require making contact with administrative officials, faculty members, or responsible persons in the community without the knowledge of anyone else.
4. The interposition of a lay person between the health division and the president usually dilutes interest of the latter in the work of the health services. This could be said for any department, but as yet health services are in a very vulnerable position in many institutions and require high-level support for their development.
5. The usefulness of a health service director and, in some instances, his ability to make impartial judgments may be impaired if his position is dependent upon keeping favor of the head of his division. With an "understanding" dean

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[9]Farnsworth, "College Health Services in the United States," p. 5.

[10]Ibid.

or vice president who appreciates the necessity for independence of physicians, any system will work. With some of them, physicians are greatly handicapped.

6. It is very difficult to persuade capable physicians to accept appointments in departments or divisions of health services that are equated with other personnel functions.[11]

Farnsworth concluded that a student health service director who reports to the dean of a medical school (in those universities that have medical schools) may be in the unfortunate position of having no one who can or will give him the support necessary to develop a first-class service. The medical school dean already has too many competing department heads to contend with, and the president assumes that the medical school is supporting the health service properly. The result may be a narrowly based service, even though what there is may be of excellent quality. Sometimes, however, the medical school administration may give more support to the student health service than the general university administration.

In 1954, Conuteson et al.,[12] at the Fourth National Conference on Health in Colleges, reported on administration, organization, and functioning of the college health service. They outlined a minimum satisfactory college health program for colleges and universities. The program outline included:

1. Health service
2. Physical education and recreation (health aspects only)
   a. General
   b. Corrective, for those with defects

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[11] Ibid., p. 6.

[12] Proceedings of the Fourth National Conference on Health in Colleges (American College Health Association, 1954), p. 33.

3. Health education
   a. Informal
   b. Formal
4. Medical aspects of disaster preparedness

They observed that the health service is a combined agency primarily responsible for:

1. Personal health
   a. Evaluation by physical examination
   b. Protection by medical care, immunizations
   c. Promotion by correction of remediable physical defects, health counseling and education
2. Public health
   a. Disease prevention and control
   b. Participation in, or responsibility for, promoting healthful environments
3. Participation in and promotion of health education, medical aspects of physical education, recreation and sports, and physician-patient and nurse-student counseling.[13]

To provide a framework to implement the above program, the authors outlined an administrative model. Within each administrative area they pointed out the interaction of each on the total function of the overall program and concluded that the function of the administrative model is flexible enough to be applied to almost any size or type of institution.[14]

## Utilization of Delivery of Care

The utilization of health services, and attitudes of students, personnel, and others toward these services are highly correlated. Farnsworth pointed out that the extent to which students utilize the health services will depend in part on the manner in which they perceive the services and their usefulness.[15]

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[13] Ibid., pp. 35-36.

[14] Ibid., p. 33.

[15] Farnsworth, "College Health Services in the United States," p. 5.

Rosa Storrs,[16] presenting her findings before the General Session of the American College Health Association during the Forty-Ninth Annual Meeting, discussed certain attitudinal differences among students utilizing the University Health Center at Alabama State University. She contended that certain assumed attitudes of students toward the utilization of the health center were valid.

Storrs' findings revealed that: (1) A high percentage of students indicated that certain symptoms of illness did not warrant medical care; (2) Many students believed that pain or other symptoms would disappear without professional care and that they had taken some action or medication on their own before seeking professional assistance; (3) Many students fail to utilize the health center because of the limited hours of the medical clinic (two hours a day--8 a.m. to 10 a.m.); (4) Thirty-three percent of the respondents indicated that they failed to visit the health center for medical care because the doctor's hours conflicted with their class schedules; (5) Eighty-three percent felt the present schedule for the medical clinic to be inadequate; (6) Seventy-nine percent indicated that if a full-time doctor is not available, a doctor should be present two hours daily during the evening; and (7) As classification advances, students tend to utilize the health center less frequently in favor of private medical care.[17] Storrs concluded that: (1) Students at Alabama State University do express a need

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[16]Rosa T. Storrs, "A Survey of Attitudes of Students Toward Utilization of the University Health Center," Journal of the American College Health Association 20 (February 1972).

[17]Ibid., p. 204.

for university health services; (2) Students utilize services frequently, but only after self-diagnosis and self-treatment; (3) Students utilize the services less frequently than they would if a doctor were readily available; and (4) There is an obvious need for more and better understanding of mental and physical hygiene and preventive medicine.[18]

Billy Franklin and S. Dale McLemore, in a study conducted at the University of Texas' student health center in 1968, investigated the utilization and attitudinal behavior of students in their use of the health center. Their major findings indicated that: (1) The majority of students of both sexes at the University of Texas evaluate their health center positively; (b) Both sexes are more likely to go to the health center than to go outside, and males are more likely to do so than females; (3) Students of both sexes are most favorable toward the doctors, with secondary favor toward the other personnel; and (4) Those features related to the organization of services were least favorably regarded.[19]

Franklin and McLemore concluded that the findings suggested that as newcomers arrive at the university, the females among them are more quickly incorporated into and influenced by the prevailing belief that most people have negative attitudes toward the health center. The continued operation of this process could account also for the fact that members of both sexes utilize outside services

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[18]Ibid., p. 205.

[19]Billy J. Franklin and S. Dale McLemore, "Attitudes Toward and Reported Utilization of a Student Health Center," Journal of the American College Health Association 17 (October 1968): 54-56.

more frequently as the length of their enrollment increases, but that only the females' attitudes toward the health center decline over time.[20]

LeRoy Piccard and Richard Caple observed that the utilization of the health center depends on three important factors: (1) the services offered, (2) the reputation of the health center, and (3) the climate of the health service.[21]

The purpose of their study was to investigate the use of the university health service over an extended period of time during which the enrollment of the institution experienced rapid growth. The major questions asked were:

1. Did the increased enrollment of the institution affect the proportion of the student body availing itself of services offered by the student health service?
2. Did differences occur in the use of the student health service by male and female students in proportion to their membership in the student body?
3. Were there differences in the use of the student health service by male and female students within medical classifications?[22]

Piccard and Caple's findings indicated that: (1) The student use of the health service increased from 7,781 students in 1962 to 13,602 students in 1967; (2) The average enrollment over the six-year period was 883 students per year, with the increased use of the health service at an average of 670 students per year; and

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[20]Ibid., p. 59.

[21]LeRoy A. Piccard and Richard B. Caple, "The Effect of the Increased Student Enrollment Upon the Use of the Universith Student Health Service," Journal of the American College Health Association 18 (April 1970).

[22]Ibid., p. 282.

(3) The increase in enrollment did not significantly change the proportional use of the health service.[23]

Piccard and Caple's findings by sex indicated that: (1) The use of the health service over the six-year time span did not show any significant differences according to sex; (2) In terms of percentages, use of the health service by sex changed 1.72 percent, whereas the enrollment proportions changed 3.99 percent over the total period; and (3) Females used the health services for medical purposes at a rate significantly higher than the males in proportion to their representation in the student body; however, no significant differences were found between male and female student users of the health services in the orthopedic and surgical areas.[24]

Piccard and Caple concluded that students enrolled in the University of Missouri, Columbia, utilized the health services at a ratio that was not significantly different from the enrollment. However, female students tended to use the medical services at a rate significantly higher than their ratio to males in the student population.

Judith Gold discovered that several studies worldwide had investigated the utilization of student health services; however, in the last decade there had been several Canadian studies. Therefore, in 1969, she began to conduct an investigation of the student health clinic to ascertain the utilization of the clinic and to predict future usage more accurately. Gold's findings indicated that: (1) In 1969-1970 (first year) 50.2 percent of the group visited

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[23]Ibid., p. 283.

[24]Ibid.

student health and another 7.8 percent went to the counseling service, 42 percent attended for medical care only, 6.2 percent for psychological care from the general practitioner, and 2 percent saw psychiatrists. Thus, a total of 16 percent of the group received psychological help in their first year; (2) In 1970-1971 (second year) 192 students (21.6 percent) had withdrawn from the university. Despite this predictable dropout, a greater percentage (53.4 percent) attended the clinic than the year before. Also, more students received psychotherapeutic help (16.3 percent) at the clinic, but only 4.7 percent attended the counseling service--making a total of 21 percent who received psychological help in their second year; and (3) In 1971-1972 (third and final year), by March of 1972, when the study ended, 10.4 percent had already received psychological help at the clinic, and 2 percent at the counseling service.[25]

Gold concluded that other studies give a range of 10 to 20 percent of student visitations to a psychiatrist; however, in this study 16 to 21 percent was the range. It is important to remember, according to Gold, that these figures represent only those seeking help. Gold added that there is a correlation between use of the clinics and lack of religious affiliation. Furthermore, unlike most studies of student health and mental health in general, Gold did not find a predominance of females seeking psychotherapeutic

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[25]Judith H. Gold, "Utilization of the Student Health Clinic," Journal of the American College Health Association 21 (June 1973): 478.

help. Both males and females seemed equally willing to admit to and discuss personal difficulties with the clinic staff.[26]

## Aspects of Financing Student Health Care

In 1953 President J. L. Morrill of the University of Minnesota wrote to the presidents of 200 colleges, asking their assistance in identifying the significant problem in the administration of college health programs.[27] The method for surveying the college presidents was a planning sheet, which asked two questions:

1. What are the outstanding administrative problems in your total college health program?
   a. Financing an adequate health service
   b. Relationships between health service and local physicians
   c. Coordination of student counseling programs
   d. Relationships between athletic department and health services
   e. Obtaining faculty support for health programs
   f. Housing and food services
   g. Insurance or prepayment plans
   h. Other
2. As a college president, what do you think are the major health problems of your students? (such as tuberculosis, emotional problems, poor health habits, etc.)[28]

Returns were received from 122 of the 200 colleges. Of these, financing an adequate health service was mentioned more frequently than other problems. Ranking second was the problem of obtaining well-trained physicians, which, as a number of people pointed out, is probably related to the problem of finance.[29] Although this survey method did not provide a substantial amount

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[26] Ibid., p. 479.

[27] Ginsburg, The College and Student Health, p. 76.

[28] Ibid., p. 76.

[29] Ibid., p. 77.

of data, it did indicate findings that were common among other colleges.

Contrasting Morrill's finding, Dana Farnsworth examined finance as an independent factor supplementary to the total financial mechanism of the health program. He contended that the service director's job is clear-cut. The director defines a sensible program, develops a scheme to finance it, and recommends its implementation to his superiors. However, Farnsworth pointed out that the success of any health program is the certainty with which it safeguards individuals from suffering financial loss at the time medical care is rendered. According to Farnsworth, a health service fee is merely a mechanism for acquiring funds to operate the service.[30]

Farnsworth concluded that the concept of fees generated from student tuition serves as a supplement to the financing of the system. However, he recognized that services that cannot be provided by the staff members of the college health services should be provided through some risk-sharing device. Among the possibilities are: (1) the purchase of commercial insurance, (2) self-insurance, (3) Blue Cross and Blue Shield plans specifically tailored to college students' needs, (4) contracts for service with local medical group practice units, or (5) any combination of these.[31]

In 1949 C. D. Gossage of the University of Toronto made a study of medical insurance and prepaid medical plans in student

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[30]Dana L. Farnsworth, ed., College Health Administration (New York: Appleton-Century-Crofts, 1964), p. 201.

[31]Ibid., p. 7.

health services in the United States and Canada.[32] As in other aspects of the field, he found little uniformity in practice and financing among the various colleges. Gossage observed that few educational institutions enroll on one campus a sufficiently large group to enable them, on a voluntary basis, to prorate the cost of providing for the care of serious illness or injury requiring specialist services or hospitalization. Their only method of relieving themselves of this moral responsibility without assumption of any increased cost is to make available to the students some form of insurance coverage. The logical role, therefore, of an insurance plan in student health services is to supplement the general preventive and minor therapeutic services provided by the college health services.[33]

Gossage concluded that the fees charged for supplementary insurance usually varied from $5 to $10 per semester at that time. He further concluded that most of the plans allowed for hospital board and care, with some limitation on additional hospital services.[34] Even though he observed that each university has its own peculiar problems and requirements and will develop a health service to meet them, he asserted that insurance schemes are only one solution to certain problems of a health service.

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[32]C. D. Gossage, "Medical Insurance and Prepaid Medical Plans in Student Health Services," Proceedings of the Twenty-Eighth Annual Meeting of the American College Health Association, Bulletin No. 30 (New York: December 1949), p. 26.

[33]Ibid., p. 26.

[34]Ibid., p. 27.

Maurice Osborne observed the problem of financing collegiate health programs in a much broader perspective.[35] He contended that the frequently observed problems and inadequacies of so many college and university health problems are widely and vocally attributed to money or, more properly, the lack of it; and to governing boards, legislatures, and administrators for failure to provide necessary support. He further reiterated that health professionals in the college setting are frequently accused (sometimes justifiably) of making unrealistic and even irrelevant demands upon the "educational dollar" for health programs that the educator cannot see as being clearly related to his responsibility. This is particularly the case as costs escalate and funds get tighter.[36]

The problem, as defined by Osborne, is basically that the difficulty arises from the persistence of a once-valid view of college health as an institutional obligation (in loco parentis) to support services for the necessary care of the ill and injured among the "large children" entrusted to it. Furthermore, a few decades ago, when the majority of college health services came into being and jelled around this concept, the relative simplicity and low costs of medical care made it possible to provide quality services meeting the standards of that time.

Osborne concluded that administrators charged with the responsibility for equitable distribution of tight institutional monies

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[35]Maurice M. Osborne, "That's Not Where the Problem Is, But That's Where It Hurts," Journal of the American College Health Association 21 (April 1973): 287.

[36]Ibid. [37]Ibid.

have already begun to question the relevance of college health to their primary mission in higher education. Moreover, faced with disproportionate health care cost increases and encumbered with the habit of thinking of student health as a budget liability and administrative burden, they tend both to continue current trends toward curtailment of direct financial support and to disengage further from important considerations and redefinitions of real and relevant institutional responsibilities for health, and of new opportunities.[38]

In the previously mentioned survey studies of Dickinson, Welker, and Moore and Summerskill, finance was included as a survey item on the questionnaire. Yet Dickinson and Welker discovered that because of the varying practices of different colleges and universities, it was virtually impossible to ascertain the real cost of student health services, to say nothing of the overall financing aspect of the entire health care delivery system. Moore and Summerskill experienced similar difficulties, but were able to provide interpretive results.

They concluded that fewer than one in three health services is supported by a special health fee. Income for health services is more generally from tuition fees and other college funds; therefore, the administrative control is more likely to reside outside the health service than within it. In addition, health fees can be supplemented by endowment, by state funds, by tuition fees, by general operating funds, by elective insurance, by compulsory insurance,

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[38]Ibid., p. 294.

by comprehensive insurance, by accident insurance, by hospitalization plans, or by no other income at all. This income may cover: (1) no clinical care; (2) all clinical care; or (3) clinical care except for doctors' bills, hospitalization, drugs, laboratory tests, bandages and splints, etc.[39]

Moore and Summerskill further concluded that the corresponding figures for colleges which have comprehensive medical programs show that the cost per student per year is in the neighborhood of $30 to $40. The inference is that the financial arrangements are adequate for perhaps one-fifth of the medical care the average student in the average college will require.[40]

Bruce Douglas observed the problem of finance within an integrated model of the total basic structure of the institution. Within this structure, the financing of the system is not treated as a burden that students should incur; rather, Douglas pointed out that "the cost should be controlled by each college and university organizing their program into meaningful integrated units."[41] He further pointed out that the program should have the unquestioned support of the highest administrative officers of the college and university, and have access to funds as do other departments and programs.

National health insurance and health maintenance organizations, as cited by Douglas, are possibilities in establishing some

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[39]Ginsburg, The College and Student Health, p. 74.

[40]Ibid., p. 75.

[41]Bruce Douglas, "Planning Campus Health Care Services II," Planning for Higher Education 4 (April 1975): 5.

support to the financing of the system. According to Douglas, "In the absence of National Health Insurance (and when that does come, remember, barring some radical and unexpected changes, it will provide only a third party payment mechanism) students and their parents are going to pay for a substantial part of the program."[42] However, Douglas viewed a health maintenance organization as a much more viable alternative.

Douglas concluded that there are certain kinds of health problems characteristic of the eighteen to twenty-two-year-old population group. However, since hospitalization is rarely needed for this age group, and as out-patient care can be handled at a low budget cost by well-trained nurses, the health costs of this group are usually low.[43]

George Edison, in a presentation before the section on administration at the American College Health Association's Forty-Seventh Annual Meeting, supported financing health services on a "fee-for-service" basis.[44] Edison's study drew mixed responses from directors of health services. The following response was registered by some directors:

> Fee-for-service medicine is probably the most destructive concept ever defended by the organized medical profession. It directs the entire emphasis of medical practice to episodic treatment of disease and is thus subversive of the far more modern concept of comprehensive preventive medical care. In addition, it places the patient in the untenable position of

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[42] Ibid.

[43] Ibid., p. 6.

[44] George R. Edison, "Prepayment Versus Fee for Service," Journal of the American College Health Association 18 (June 1970): 325.

> weighing the potential threat of his health from illness against the economic penalty of seeking medical care.[45]

Nevertheless, Edison pointed out that although the preceding statement contains some truth, one should not become overly concerned that fee-for-service is a punitive method of paying for medical care or, on the other hand, that prepayment is just a socialistic scheme. There may be room for both.[46]

Analysis of the survey results did not provide total support for fee-for-service, as interpreted by Edison; however, it did indicate that 50 of the 11 responding schools did utilize fee-for-service to some extent.[47]

Edison concluded that the results of the study could be grouped into favorable and unfavorable factors for or against fee-for-service, with each group presenting arguments that were supportive and unsupportive. He presented a summary of three factors that could be utilized by both positions:

1. Financing medical care is uncomfortable, but doctors should agonize over it as much as patients do.
2. The preference for or against fee-for-service financing is related not so much to budget size or satisfaction with one's budget, as to hidden feelings about students, fees and competition with other physicians.
3. Fee-for-service deserves a bigger place in the financing picture of many health services.[48]

In 1974, Nonnamaker presented a position paper before the members of the Board of Trustees, outlining a priority scheme for certain facets of health care at Michigan State University. The

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[45]Ibid. [46]Ibid. [47]Ibid., p. 326. [48]Ibid., p. 329.

scheme was outlined according to priorities. Priority 1 consisted of Preventive and Required Health Services, Priority 2 consisted of Emergency and Immediate Health Care Services, and Priority 3 consisted of Extended or Long-Term Care.[49]

Under each priority, Nonnamaker provided a brief narrative of the purpose of the priority. He stressed the funding responsibility of the university to the health care program. According to him, the university has some responsibility to provide care by allocating university funds to some aspects of the health programs.[50] He further provided guidelines indicating the responsibilities of the student and university toward funding the health care system. He pointed out that the student has a financial responsibility to pay, either directly or through insurance, for all professional care, including surgical procedures he receives when confined in the facility.[51] Nonnamaker contended that if extended long-term care is needed, it must be relegated to an in-paitent care facility.

Nonnamaker concluded that determining the priorities within the health program will determine the type of health care to be provided at Michigan State University. In addition, he outlined recommendations that supported his position for funding, and the overall responsibilities of the university toward quality health care at Michigan State University, as follows:

1. It is recommended that the University assume full financial responsibility for those services included in Priority 1.

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[49]Nonnamaker, "Health Care at Michigan State University," p. 1.

[50]Ibid., p. 3. [51]Ibid.

2. It is recommended that the University finance the administrative structure necessary to provide the health care services included in Priority 2. It is also recommended that the University provide funds for the maintenance of the health care facility.
3. It is recommended that the student, through a quarterly fee, finance professional care, including diagnostic procedures, for Priority 2 services. Further, it is recommended that part of this fee be used to finance the building of a new health care facility.
4. It is recommended that the University explore the possibility of offering students the opportunity to receive outpatient care for dependents by paying the same quarterly fee for each dependent.
5. It is recommended that the student, by direct payment or through insurance, bear the entire cost of any short-term confinement as indicated in Priority 2.
6. Insofar as those services included in Priority 2 are concerned, it is recommended that the same cost system apply, whether the individual is treated through the clinical training program or the Student Health Center.
7. It is recommended that a professional study be undertaken to determine whether the professional and supportive staff, currently employed by the Health Center, is adequate to provide the services included in Priorities 1 and 2.
8. It is recommended that a new student health facility be built in the vicinity of the Clinical Services Building and that it be designed to provide those services as outlined in Priorities 1 and 2.
9. It is recommended that insofar as possible, duplication of equipment and personnel with respect to diagnostic procedures be kept to a minimum.[52]

## Summary

As indicated at the outset of this chapter, no study has focused specifically upon the system itself and how it influences each administrative function that governs the output of the services. Consequently, representative studies in these areas were surveyed, some of which analyzed the organizational/administrative patterns, utilization of delivery of care, and financing of college health programs.

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[52]Ibid., p. 5.

Within the current study, the general and in-depth reviews of the organizational/administrative patterns revealed that, throughout the country, college health programs have their own individualized organizational/administrative structure. There was no uniformity or standardization. In addition, the review emphasized the apparent need for a separate administrative department or division, parallel with the organization headed by the dean of students, with the health director reporting directly to the president of the university.

It was also acknowledged that the comprehensiveness of the organizational/administrative pattern correlated with the size of the college or university. Furthermore, this particular correlation reflected the type of comprehensive health care system of some institutions.

The literature on utilization of delivery of care yielded studies concerning the analysis of the delivery system and an attitudinal relationship of students, personnel, and others toward the provision of health services. In addition, the studies revealed that the perception that students and others held toward the health program weighed heavily upon their utilization of the services.

Studies of the aspects of financing student health care provided a broad review of the various financial mechanisms utilized by different colleges and universities. However, to some extent, the total financing of health care by the campus population became <u>supplementary</u> in nature, if a program depended on generating funds to operate its services. Yet, with different financial plans such

as fee-for-services, commercial insurance, self-insurance, and Blue Cross/Blue Shield, students and others were able to choose a plan. This allowed a college or university to be less committed to assuming total responsibility for financing health care for its student body.

It was also apparent that colleges and universities do have a major responsibility to provide financial options for their constituents; and with the increased cost of medical services, colleges and universities have begun to reassess this responsibility. Therefore, some colleges have viewed the Health Maintenance Organization and the National Health Insurance Act as a possible financial source to assist their present health programs.

Very few colleges and universities had a major plan or program that financed a total health program. Some relied on third-party payment, whereas others relied on credit or unit fee, general fund, and revenue out-of-pocket payment for financing their health programs.

# CHAPTER III

## METHOD AND PROCEDURE

The purpose of this study was to analyze the health care programs for students at eleven universities in the Western Chicago Conference Association. This chapter is concerned with the source of data, selection of sample, method of collection, and treatment of data.

### Source of Data

Data for this study were collected from eleven midwestern universities during the academic year 1974-75 (see Table 1). The selection of these schools was based upon their membership in the Western Chicago Conference Association (W.C.C.A.), an organization consisting of all participating Big Ten Conference schools and the University of Chicago, which is included because of its former membership in the Big Ten and its continued participation in the health conferences held each year.

Each institution's health program is individualized and is representative of various college health programs throughout the country. In addition, there is an exchange of ideas and information that enhances a working relationship among these institutions. This allows for a broad interpretation and generalization of research data collected.

The names, sponsorship, and total enrollment of universities in the Western Chicago Conference Association are presented in Table 1. Of the eleven universities under study, nine are state-supported institutions.

Table 1.--Name, sponsorship, and total enrollment of universities in the Western Chicago Conference Association, academic year 1974-75.

| Institution | Sponsorship | Total Enrollment |
|---|---|---|
| Indiana University (Bloomington) | State | 30,714 |
| Michigan State University | State | 44,966 |
| Northwestern University | Private | 10,091 |
| Ohio State University | State | 49,275 |
| Purdue University | State | 36,367 |
| University of Chicago | Private | 9,096 |
| University of Illinois (Urbana-Champaign) | State | 34,651 |
| University of Iowa | State | 21,271 |
| University of Michigan | State | 33,583 |
| University of Minnesota | State | 42,970 |
| University of Wisconsin (Madison) | State | 35,986 |

## Collection of Data

It was necessary to establish a set of criteria to analyze the health care programs of the eleven universities selected for this study. Based upon the review of literature, it appears that college health programs were enacted because college authorities

recognized that the health of college students was of primary concern, and that it could not be left either to the individual or the community to carry out this important responsibility. College health programs have not escaped the recent demand for "change" within academia. With new emphasis on consumerism, college students have been demanding changes within the college health care delivery system. These demands require that a scientific analysis of the current health care system be made in order to assure the delivery of quality care.

The criteria used to assess the various health care programs for this investigation were based on the following objectives of the study:

1. To determine the administrative patterns of each Big Ten student health component.
2. To identify scope of services offered by each university health system.
3. To identify the financing mechanism of these services offered by each program.
4. To describe the staffing patterns of each program.
5. To determine eligibility of the population served by each university health component.

## Instrument for Collecting Data

A mailed questionnaire was employed to collect the necessary data, followed by a visit to selected institutions. The instrument consisted of fifty-four questions. Of these items, three were open-ended to allow the respondents to record other pertinent data that

were not covered by the multiple-choice section of the questionnaire. The format consisted of five major sections that encompassed the five objectives of the study. They were: Part I (General Information), Part II (Organization/Administrative Patterns), Part III (Scope of Services), Part IV (Eligibility), and Part V (General Comments).

Part I consisted of four questions that served to draw general information; Part II comprised seventeen questions that sought descriptive information about the administrative/organizational patterns of each college program; Part III consisted of twenty-nine questions that elicited descriptive information about the scope of services and finance mechanisms; Part IV contained three questions that sought descriptive information concerning eligibility; and Part V had three general information questions. The instrument was pretested and the necessary corrections made before it was mailed out.

## Procedure

The investigator contacted several of the health directors of the W.C.C.A. by telephone to seek their cooperation. Subsequently, he attended the annual meeting of the Western Chicago Conference Association at the University of Michigan, where he presented the format of the study to the membership. During a discussion period, several suggestions were made and taken into consideration in further developing the study.

After the questionnaire was pretested and completed, it was mailed to each of the eleven universities composing the W.C.C.A., with supporting letters from the Office of Evaluation and Research

and the Health Care Authority, Michigan State University. Also included with the questionnaire was a letter to the director of university health services, requesting his cooperation in the study.

The universities were requested to return the questionnaire no later than July 15; however, three of them did not meet the deadline and were contacted by telephone. To expedite the process, a personal visit was made to each of the three remaining institutions. Complete data were collected from the total population selected for study. Other pertinent data were also provided by the institutions under study.

## Treatment of Data

The data obtained from the questionnaires were tabulated and summarized by frequencies and percentages. The institutions studied were clustered according to their total student population, as reported on the questionnaires. This grouping resulted in the following four categories: Cluster I consisted of universities with an enrollment under 20,000; Cluster II consisted of universities with an enrollment of 20,000-30,000; Cluster III consisted of universities with an enrollment of 30,000-40,000; and Cluster IV consisted of universities with an enrollment of 40,000 or more.

The research method of analysis of frequencies and percentages is used because of the descriptive nature of the study. The research data are interpreted in a descriptive-analysis format. According to Polansky, the descriptive-diagnostic study is on the same level as the exploratory-formulative study; but its objective

is to convey accurately the characteristics of a situation or of phenomena, rather than to develop hypotheses for testing.[1]

## Summary

A questionnaire designed to examine selected characteristics of college health services was mailed to the eleven institutions composing the W.C.C.A. during the month of July, 1975. The institutions were clustered into four categories, according to size of enrollment. Eight of the universities returned their questionnaires during the latter part of July. Three of the universities did not return their questionnaires; the writer subsequently contacted them by telephone, visited these institutions, and obtained their questionnaires, thereby completing the total of eleven institutions surveyed.

The data were tabulated and summarized by frequencies and percentages. Each question was structured on the print-out according to the five major areas: Part I (General Information); Part II (Administrative/Organizational Patterns); Part III (Scope of Services); Part IV (Eligibility); and Part V (Summary Information).

For interpretation of the study, percentages are used in a descriptive-analysis format.

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[1]Norman A. Polansky, Social Work Research (Chicago: University of Chicago Press, 1963), p. 57.

# CHAPTER IV

# PRESENTATION OF FINDINGS

This chapter presents the major findings and descriptive analysis of the data relative to selected characteristics of college health services in universities of the Western Chicago Conference Association. The first order of results is a description of the characteristics of the sample. The remaining data are presented according to the following categories: (1) administrative patterns of the university student health components, (2) scope of services offered by the various health delivery programs, (3) critical staffing patterns, (4) method of financing health care services, and (5) eligibility of the population.

## Characteristics of the Population

The first four items on the questionnaire were included to obtain the following demographic information: (1) size of student population served by the health program, (2) student population residing in residence halls or dormitories, (3) married student enrollment, and (4) student population residing in married housing facilities.

Table 2 presents the population of the institutions according to clusters. In Cluster I, there were two institutions with an enrollment under 20,000; Cluster II consisted of two institutions

with an enrollment between 20,000 and 30,000; Cluster III comprised four institutions with an enrollment of 30,000 to 40,000; and Cluster IV comprised three institutions with an enrollment of 40,000 or more.

Table 2.--Cluster formation of universities in the Western Chicago Conference Association by size of enrollment.

| Cluster | Number of Universities | Size of Undergraduate Population |
|---|---|---|
| I | 2 | Under 20,000 |
| II | 2 | 20,000-30,000 |
| III | 4 | 30,000-40,000 |
| IV | 3 | Over 40,000 |

Another factor used in describing the population was the type of student living arrangements, summarized in Table 3. It shows by clusters the percentage of students living in residence halls or dormitories. Of the two universities in Cluster I, one indicated that 80 percent of its student body chose this type of living pattern, and the second school reported a 51-60 percent pattern. Schools in Clusters II and III indicated less than 50 percent of the student body residing in residence halls or dormitories. Two of the Cluster IV schools reported less than 50 percent, with one remaining school reporting 51-60 percent of the students having residence hall or dormitory life styles. Overall,

institutions reported less than 50 percent of their students living in residence halls or dormitories.

Table 3.--Percentages of students living in residence halls or dormitories.

| Cluster | Under 50% | 51%-60% | 61%-70% | 71%-80% | Over 80% |
|---|---|---|---|---|---|
| I | - | 1 | - | - | 1 |
| II | 2 | - | - | - | - |
| III | 4 | - | - | - | - |
| IV | 2 | 1 | - | - | - |
| Total number reporting | 8 | 2 | 0 | 0 | 1 |
| % of population residing in residence hall or dorm | 72% | 18% | 0% | 0% | 10% |

Table 4 represents by clusters the percentage of married students enrolled in the universities. Of the total number reporting, eight universities (72 percent) indicated a 10-30 percent married student enrollment. However, Clusters III and IV showed a larger proportion of married student enrollment as compared with Clusters I and II.

Of the eleven institutions in the W.C.C.A. reporting, ten institutions reported less than 50 percent of their married students lived in married housing facilities. As shown in Table 5, Clusters III and IV, institutions with larger populations, had fewer married

students living in married housing, whereas Cluster II had one institutions with less than 50 percent and one with greater than 50 percent.

Table 4.--Percentage of married student enrollment population in the W.C.C.A. universities.

| Cluster | Less Than 10% | 10%-30% | 31%-50% | More Than 50% |
|---|---|---|---|---|
| I | - | 1 | 1 | - |
| II | 1 | 1 | - | - |
| III | - | 3 | 1 | - |
| IV | - | 3 | - | - |
| Total number reporting | 1 | 8 | 2 | 0 |
| % of married population enrollment | 10% | 72% | 18% | 0% |

Table 5.--Percentages of students living in married facilities of the W.C.C.A. universities.

| Cluster | Less Than 50% | More Than 50% |
|---|---|---|
| I | 2 | - |
| II | 1 | 1 |
| III | 4 | - |
| IV | 3 | - |
| Total number reporting | 10 | 1 |
| % of population residing in married housing facilities | 90% | 10% |

Tables 4 and 5 represent similar factors--married students. Universities in Clusters III and IV of Table 4 have less than 30 percent married students enrolled, whereas the majority clusters of Table 5 show less than 50 percent of students living in married housing.

## Administrative Patterns

The results of the study, as shown in Table 6, revealed that of the eleven institutions in the W.C.C.A., six (54 percent) reported a separate unit for health care delivery to students. Those institutions with a separate unit reported that they operated independently of a coordinated administrative structure for all health care delivery on campus. The remaining institutions were tabulated as follows: Two institutions (18.2 percent) reported that student health services were under the administrative jurisdiction of student personnel service. One institution (10 percent) reported administrative jurisdiction under the medical school category, whereas under the category "other," two institutions (18.2 percent) reported administrative jurisdiction under the hospital and health care authority structure.

According to the data presented in Table 7, all W.C.C.A. institutions had either a health council, committee, or board that served only in an advisory capacity. The advisory bodies varied in composition and size. The size varied from two members to eleven members; the most prevalent composition was student, medical staff, and faculty representation. Of this composition, students were

represented on 90 percent of the boards, and medical staff and faculty were represented on 80 percent of the boards.

Table 6.--Type of organizational structure of the W.C.C.A. universities' health programs.

| Cluster | Separate Unit | Student Personnel Service | Medical School | Other[a] |
|---|---|---|---|---|
| I | 1 | - | 1 | - |
| II | - | 1 | - | 1 |
| III | 3 | 1 | - | - |
| IV | 2 | - | - | 1 |
| Total number reporting | 6 | 2 | 1 | 2 |
| % of organizational structure | 54.5% | 18.2% | 10% | 18.2% |

[a]University hospital and health care authority.

Although the size of health boards in Clusters I and III varied somewhat from Clusters II and IV, it is apparent that there is no relationship between the size of the boards and the population served, since the size of the board did not tend to increase as the size of the university increased. It appears that the diversification of roles of health care board members provides the board with a number of viewpoints probably different from those of the professional.

Table 7.--Roles of members on health care board; ranges in sizes of health board.

| Cluster | VPSA | NR | DMS | FR | SR | HA | CR | DS | MDR | Other[a] | Ranges in Sizes of Health Board |
|---|---|---|---|---|---|---|---|---|---|---|---|
| I | - | - | 1 | 1 | 1 | - | 1 | 1 | 2 | 6 | 6-7 |
| II | 1 | 1 | - | 1 | 2 | 1 | - | - | 1 | 0 | 2-5 |
| III | - | - | - | 4 | 4 | 2 | 1 | 2 | 4 | 6 | 4-7 |
| IV | - | - | - | 2 | 2 | 2 | - | - | 1 | 1 | 4-11 |
| Total number reporting | 1 | 1 | 1 | 8 | 9 | 5 | 2 | 3 | 8 | 13 | |
| % of role on board of each university reporting | 10% | 10% | 10% | 80% | 90% | 50% | 20% | 30% | 80% | 80% | |

Key: VPSA=vice-president of student affairs; NR=nurse representative; DMS=dean(s) of medical school; FR=faculty representative; SR=student representative; HA=health administrator; CR=community representative; DS=dean of students; MDR=medical director.

[a]Nonacademic employee representative, chief of staff, hospital director, chairman of psychiatry, chairman of medicine, student health services governing body--board of trustees, director of health center, business manager, manager--community physicians, associate director, health education professor, insurance specialist, central administration representative.

All but one of the institutions studied held regular board meetings on either a monthly or bi-monthly basis. In addition, it was shown that in 90 percent of the cases the chief executive officers of the W.C.C.A.'s health programs were physicians; one university reported that the chief executive officer was a health administrator.

Table 8 indicates that the eleven institutions operated their health programs under the line-of-authority framework (direct or indirect).[1] Of the total number, eight (72 percent) operated under an indirect line of authority. Five (45 percent) institutions falling in the larger clusters tended toward the indirect authority structure. In most cases, the indirect authority structure was either at the level of vice-president for student affairs or dean of students.

Table 8.--Authority structure of the W.C.C.A. health care program.

| Cluster | Direct Authority | Indirect Authority |
|---|---|---|
| I | 1 | 1 |
| II | - | 2 |
| III | 1 | 3 |
| IV | 1 | 2 |
| Total number reporting | 3 | 8 |
| % of authority initiated | 27% | 72% |

[1]Direct authority refers to that authority dictated to the executive officer by someone at the chancellor or presidency level. Indirect authority is that authority dictated by a lower echelon, i.e., vice-president for student affairs or dean of students.

As shown in Table 9, most of the health services were made available during weekdays and Saturday mornings. Only those institutions classified under Cluster IV maintained health services after 5:00 p.m. daily. However, all institutions reported that arrangements for emergency services were available on a twenty-four hour basis.

Table 9.--Scheduled times and days health clinics are open for services.

| Cluster | Daytime (8 a.m.-5 p.m.) | Evening After 5 p.m. | Sat.[a] | Sun. | Holidays | Emerg.[b] |
|---|---|---|---|---|---|---|
| I | 2 | - | 1 | - | - | 2 |
| II | 2 | - | 2 | - | - | 2 |
| III | 4 | - | 4 | - | - | 4 |
| IV | 3 | 2 | 2 | - | - | 3 |

[a]Saturday hours are morning only.

[b]All report twenty-four hour emergency service.

## Scope of Services

A second objective of this study was to analyze the scope of health care services of each W.C.C.A. institution. It was found that most, but not all, member institutions offered health care services outlined in the questionnaire. Of the types of services offered at each institution, examination of Table 10 shows that the Cluster I institutions offered 92 percent of the health care

Table 10.--Scope of services offered by the W.C.C.A. institutions.

| Types of Services | Cluster | | | |
|---|---|---|---|---|
| | I | II | III | IV |
| Speech/hearing | 1 | 1 | 2 | 2 |
| Ophthalmologia | 1 | 1 | 2 | 2 |
| Surgery | 2 | 2 | 2 | 3 |
| Gyn. or family plan | 2 | 1 | 3 | 3 |
| Physician's service | 2 | 2 | 4 | 3 |
| Skilled nurse care | 2 | 2 | 4 | 3 |
| Mental health | 2 | 2 | 4 | 3 |
| Emergency | 2 | 2 | 3 | 3 |
| Laboratory | 2 | 2 | 4 | 3 |
| X-ray | 2 | 2 | 4 | 3 |
| Immunization | 2 | 2 | 4 | 3 |
| Pharmacy | 2 | 2 | 4 | 3 |
| In-patient care | 1 | 2 | 4 | 2 |
| Physical therapy | 2 | 2 | 4 | 3 |
| Dental care | 2 | 1 | 2 | 2 |
| Social service | 2 | 2 | 2 | 2 |
| Health education | 2 | 2 | 4 | 2 |
| Dietary counseling | 2 | 2 | 4 | 3 |
| Total (% of services offered by each institution) | 92% | 89% | 83% | 89% |

services, a slightly larger percentage than the other clusters. Clusters II and IV offered 89 percent of the services studied, and Cluster III offered 83 percent. It was not clear whether the availability of services is directly related to the cluster size, since Clusters III and IV have larger cluster sizes than Clusters I and II. However, Clusters II and IV are similar in their health care offering as compared with Cluster III, which rates lower in its offering of services.

Table 11 presents an analysis of the annual health examination by category, according to clusters of the W.C.C.A. institutions.

It shows that an annual student health examination is not a requirement for attendance at these universities. Of the W.C.C.A. institutions, 36 percent required new students to have health examinations, whereas 54 percent of the institutions required new faculty and staff to have health examinations. However, 91 percent of the institutions reported that they required health examinations of their athletes.

Table 11.--Annual health examination by category of population.

| Cluster | All Students Annually | New Students Only | New Faculty and Staff | Athletes |
|---|---|---|---|---|
| I | - | 2 | 1 | 2 |
| II | - | - | 2 | 2 |
| III | - | 1 | 1 | 3 |
| IV | - | 1 | 2 | 3 |
| Total (% of institutions requiring health examinations) | - | 4 | 6 | 10 |
| | 0% | 36% | 54% | 91% |

The examination of Table 12 reveals that two institutions (18 percent) indicated the availability of health care for students' dependents, two institutions (18 percent) provided health care to their faculty, and four institutions (36 percent) made health care available to their staff. The majority of health services at the W.C.C.A. schools are for students only. As indicated in Table 12, students' dependents, faculty, and staff are eligible for services

in only a few organized student dependent programs tailored to meet the needs of their student dependent population.

Table 12.--Provision of health care for different groups of the population.

| Cluster | Student Dependent | Faculty | Staff |
|---|---|---|---|
| I | - | - | 1 |
| II | - | - | - |
| III | 1 | - | 1 |
| IV | 1 | 2 | 2 |
| Total number reporting | 2 | 2 | 4 |
| % of health care for different groups | 18% | 18% | 36% |

Table 13 represents the percentage of organized health education services for consumers of the W.C.C.A. institutions. As shown, 73 percent of the institutions offered a health education program for consumers. The programs were not well formulated in all institutions because some programs were in the developmental stage; therefore, health education programs were not specified as formalized programs at most of the institutions.

All of the Cluster III institutions offered a health education program. Moreover, the frequency of physicians and nurses being responsible for administering the health education program seemed to be equally distributed among institutions. An increasing number of institutions are looking to health education specialists

to provide this leadership. It is not evident whether these individuals have graduate or professional degrees in an MPH program, or training in health education or administration. Furthermore, some institutions reported that administrators, graduate assistants, and all health faculty personnel are responsible for administering health education programs.

Table 13.--Organized health programs for consumers.

| Cluster | Yes | No |
|---|---|---|
| I | 1 | 1 |
| II | 1 | 1 |
| III | 4 | 0 |
| IV | 2 | 1 |
| Total number reporting | 8 | 3 |
| Percent responding to organized health programs for consumers | 73% | 27% |

As indicated in Table 10, all institutions reported providing mental health services to their clientele. However, Table 14 outlines the type of mental health staff maintained to provide these services. Seventy-two percent indicated that psychologists were employed, 100 percent offered psychiatric services, 63 percent employed social workers, and 27 percent included counselors as staff members. An examination of Table 14 shows that only two institutions in Cluster III and one institution in Cluster IV

utilized the services of the counselor as compared with other mental health personnel. Also, there was a similarity in staffing patterns for institutions in Clusters III and IV.

Table 14.--Mental health personnel who provide mental health services for the W.C.C.A. institutions.

| Cluster | Psychologist | Psychiatrist | Social Worker | Counselor |
|---|---|---|---|---|
| I | 1 | 2 | 2 | - |
| II | 1 | 2 | 1 | - |
| III | 3 | 4 | 2 | 2 |
| IV | 3 | 3 | 2 | 1 |
| Total number reporting | 8 | 11 | 7 | 3 |
| Percent of mental health personnel of W.C.C.A. institutions | 72% | 100% | 63% | 27% |

In the majority of cases, mental health services at the studied institutions were for students only. This is consistent with the trend that a majority of the health care services were provided only for students.

In assessing medical care given to athletes, it was found that all institutions provided services to this special group. Further information concerning types of services provided athletes was not ascertained.

To ensure quality of care and continuity of services, a linkage should be established between the university student health

center and other resources. The most effective means for providing continuing care is through a well-planned referral system. Table 15 lists the types of health service facilities used for patient care in addition to those provided on-site. The table reveals that 72 percent of the institutions utilized community hospitals, 63 percent used university teaching hospitals, 9 percent used ambulatory health centers, and 36 percent referred to other facilities, e.g., medical school specialty clinics, free clinics, family planning agencies, and private group clinics.

Table 15.--Types of medical facilities utilized by the W.C.C.A. institutions.

| Cluster | Community Hospitals | University Teaching Hospitals | Ambulatory Care Centers | Other[a] |
|---|---|---|---|---|
| I | - | 2 | - | 1 |
| II | 1 | 1 | - | 1 |
| III | 4 | 2 | - | 2 |
| IV | 3 | 2 | 1 | - |
| Total number reporting | 8 | 7 | 1 | 4 |
| Percent of medical facilities utilized by W.C.C.A. institutions | 72% | 63% | 10% | 36% |

[a]Medical school clinics, free clinics, community family planning agencies, and private group clinics.

Institutions in Clusters III and IV utilized community hospitals and university hospitals to a greater extent than did the other clusters, perhaps as a result of the influence of the medical school programs at the Cluster III and IV institutions. Therefore, if there is such a relationship, the facilities utilized are dependent upon the nature of the medical school's curriculum at those institutions having medical schools. That is to say, ambulatory care clinics are not used if the medical facilities at those institutions with medical schools do not include ambulatory care centers.

There may have been confusion on the part of the respondents about whether or not the university teaching hospitals are to be categorized as the primary facilities for health care or as supplemental facilities, because some of the institutions that had university teaching hospitals did not indicate using these facilities but reported elsewhere on having patient visitations at these hospitals. Nevertheless, one can conclude that the university teaching hospitals and the community hospitals, where available, are at least used to supplement the health care facilities of the university.

Most of the W.C.C.A. institutions maintained an in-patient care facility. Table 16 shows that eight institutions (73 percent), as compared with three institutions (27 percent), provided in-patient care services. In all cases, with the exception of one institution in Cluster III, the in-patient care facilities are accredited by the Joint Commission on Hospital Accreditation. This agency accredits all hospitals of twenty-five beds or more.

Table 16.--In-patient care facilities of the W.C.C.A. institutions.

| Cluster | Yes | No |
|---|---|---|
| I | 1 | 1 |
| II | 1 | 1 |
| III | 4 | - |
| IV | 2 | 1 |
| Total number reporting | 8 | 3 |
| Percent of in-patient care facilities | 73% | 27% |

According to Table 17, the larger clusters have a greater total bed capacity. It reveals that institutions in Cluster I had a bed capacity of twenty-five to fifty, institutions in Cluster II had a bed capacity of twenty-five, institutions in Cluster III had a bed capacity of fifty to seventy-five, and Cluster IV had one institution reporting a capacity of twenty-five to fifty and another with a capacity of fifty to seventy-five. Thus the common break between the larger and smaller clusters seems to be around twenty-five beds.

Utilization rate is an important factor in maintaining an in-patient care facility in university student health settings. All clusters in the institutions under study showed a decline in the total number of in-patient days over the past five years. As pointed out in Figure 1, Clusters I to III track each other as far as the rate of decline is concerned. However, it is curious to note that Cluster III is continually the lowest cluster relative to

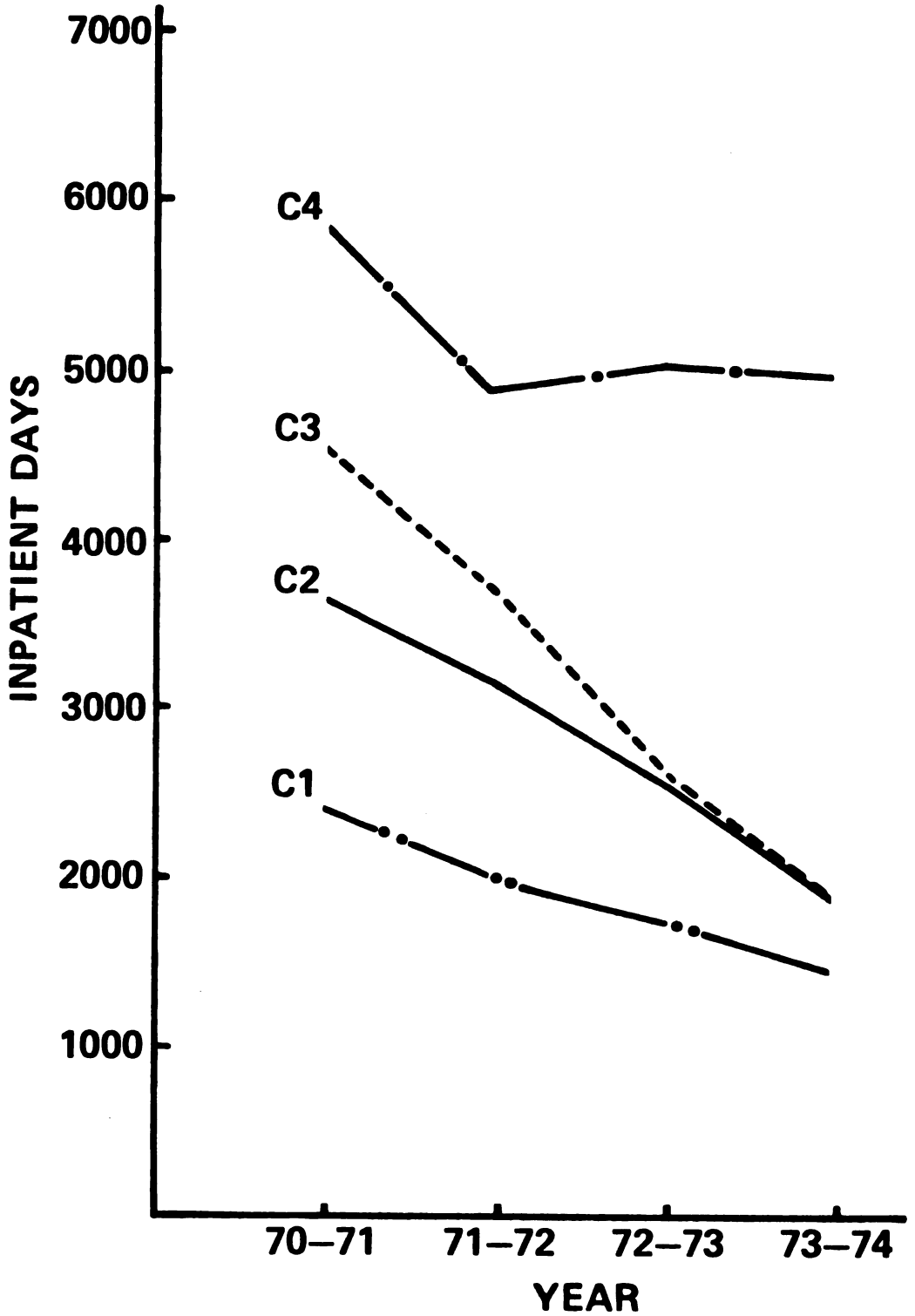



Figure 1.--In-patient days during the last five years.

in-patient days. As expected, Cluster IV had the highest number of in-patient days, but there is no evidence of why Cluster III institutions were lowest in the in-patient day ordering. Moreover, Cluster IV institutions in 1971-72 showed a significantly lower decline in in-patient days than their trend line indicates.

Table 17.--Total bed capacity of W.C.C.A. institutions.

| Cluster | 25 | 25-50 | 50-75 | 75-100 | 100 |
|---|---|---|---|---|---|
| I | - | 1 | - | - | - |
| II | 2 | - | - | - | - |
| III[a] | - | - | 3 | - | - |
| IV | - | 1 | 1 | - | - |
| Total number reporting | 2 | 2 | 4 | - | - |
| Percent of bed capacity | 25% | 25% | 50% | 0% | 0% |

[a]Three schools did not respond.

## Staffing Patterns

Another important aspect of delivering quality health care is adequate staffing. In this investigation, it was found that both full-time and part-time personnel were employed, as shown in Table 18. It reveals the staffing patterns of the various health care delivery systems under each cluster and points out the average number of full-time and part-time personnel employed, as well as the range of staffing within each cluster. Table 18 also shows that institutions

within Cluster IV had an average of 123.7 full-time personnel with a range of 71 to 162, and an average of 110.3 part-time personnel with a range of 34 to 159. Furthermore, Cluster III had an average of 96.3 full-time personnel with a range of 70 to 112, and part-time personnel with an average of 42 and a range of 12 to 72.

Table 18.--Averages and ranges of staffing of W.C.C.A. health services: full-time/part-time personnel.

| Cluster | Full-Time (Range) | Part-Time (Range) |
|---|---|---|
| I[a] | 31 (31) | 10 (10) |
| II | 33.5 (17-50) | 6 (3-9) |
| III[a] | 96.3 (70-112) | 42 (12-72) |
| IV | 123.7 (71-162) | 110.3 (34-159) |

Note: These data represent the actual number of personnel employed and not full-time equivalency. The figures in parentheses are ranges and actual figures reported and tabulated to compute the average full-time/part-time personnel.

[a]Clusters I and III had schools not reporting data.

In comparison, institutions in Cluster II had an average of 33.5 full-time personnel with a range of 17 to 50 and an average of 6 part-time personnel with a range of 3 to 9. Moreover, institutions in Cluster I had an average of 31 full-time personnel with a range of 31, and an average of 10 part-time personnel with a range of 10. It is evident that the Cluster III and IV institutions

employed more personnel than did Clusters I and II. These differences are probably a result of the size of the institutions categorized under the respective clusters.

Table 19 represents the average distribution of physicians, both full time and part time. It shows that Cluster IV institutions reported an average of 15.3 full-time physicians, with seven physicians reported as osteopaths, and an average of 53.3 part-time physicians; whereas Cluster III institutions reported an average of nineteen full-time physicians and an average of only six part-time physicians. By comparison, institutions in Cluster II showed an average of ten full-time physicians and an average of 1.5 part-time physicians; whereas institutions in Cluster I reported an average of five full-time physicians and an average of 15.5 part-time physicians. Therefore, institutions in Clusters III and IV had proportionately larger full-time medical staffs than did Clusters I and II. Institutions in Cluster IV also showed a larger part-time medical staff as compared to the other clusters.

Table 19.--Average physician staffing: full-time/part-time.

| Cluster | Full-Time | | Part-Time | |
|---|---|---|---|---|
| | M.D. | D.O. | M.D. | D.O. |
| I | 5.0 | - | 15.5 | - |
| II | 10.0 | - | 1.5 | - |
| III | 19.0 | - | 6.0 | - |
| IV | 15.3 | 7[a] | 53.3 | - |

[a]The full-time category in Cluster IV lists seven Doctors of Osteopathy.

Table 20 indicates that the average length of face-to-face contact between physician and patient is ten to twenty minutes. It shows that 73 percent of the institutions indicated that physicians spent between ten to twenty minutes with their patients, as compared with 9 percent who spent twenty to thirty minutes. However, no physician spent less than ten minutes or more than thirty minutes with a patient. This was evident regardless of the cluster.

Table 20.--Amount of time of face-to-face contact by physicians.

| Cluster | 5 | 10-20 | 20-30 | 30 |
|---|---|---|---|---|
| I | - | 1 | - | - |
| II | - | 1 | - | - |
| III | - | 3 | 1 | - |
| IV | - | 3 | - | - |
| Total number reporting[a] | - | 8 | 1 | - |
| Percent of schools responding | 0% | 73% | 9% | 0% |

[a]Two schools did not respond.

In Figure 2 the specialty areas of the medical staff are explored. As shown, 60 percent of full-time physicians were classified as family or general practitioners, whereas 41 percent of part-time physicians were listed in the same category. In contrast, 18 percent of full-time specialty personnel were listed as internists,

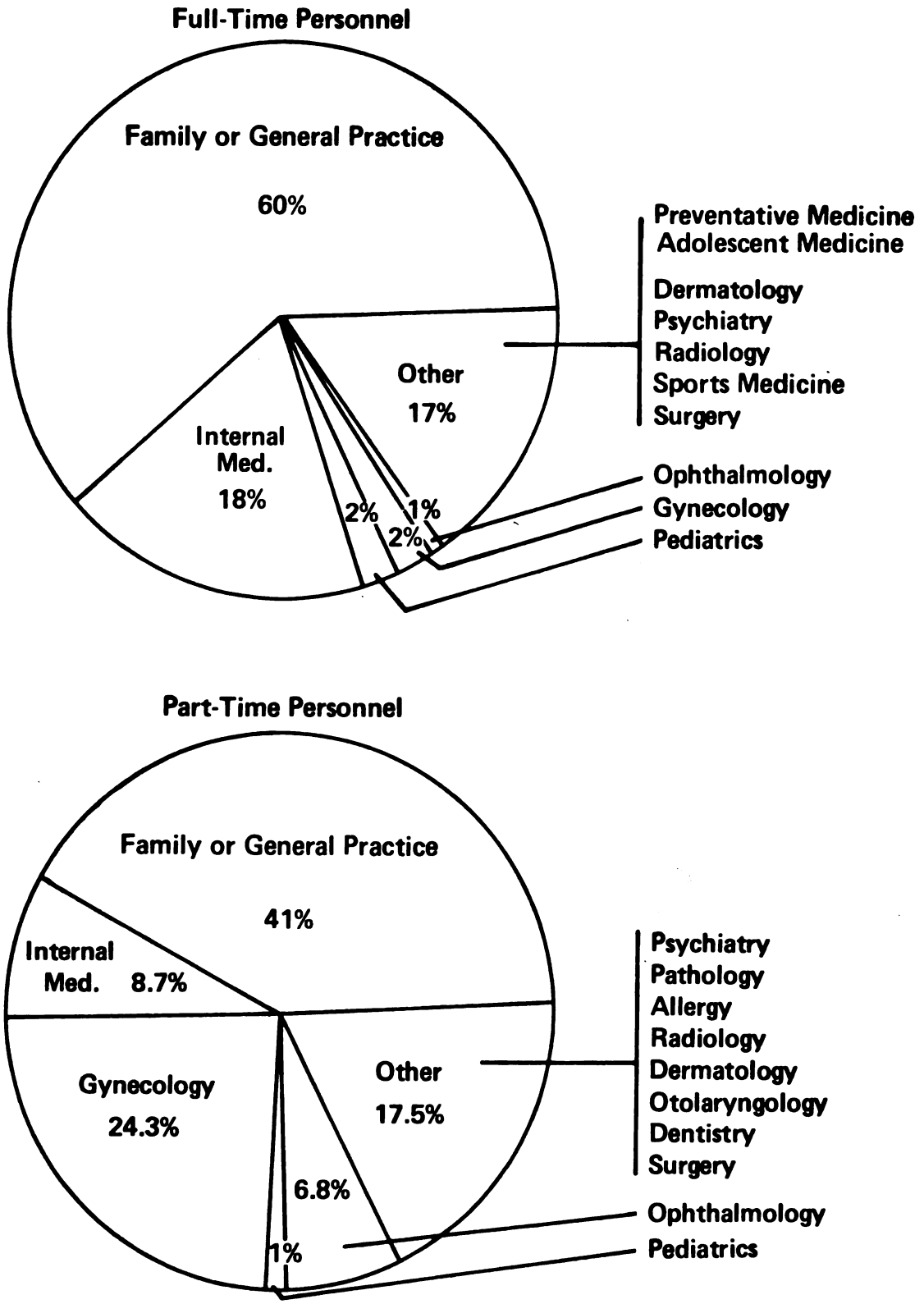


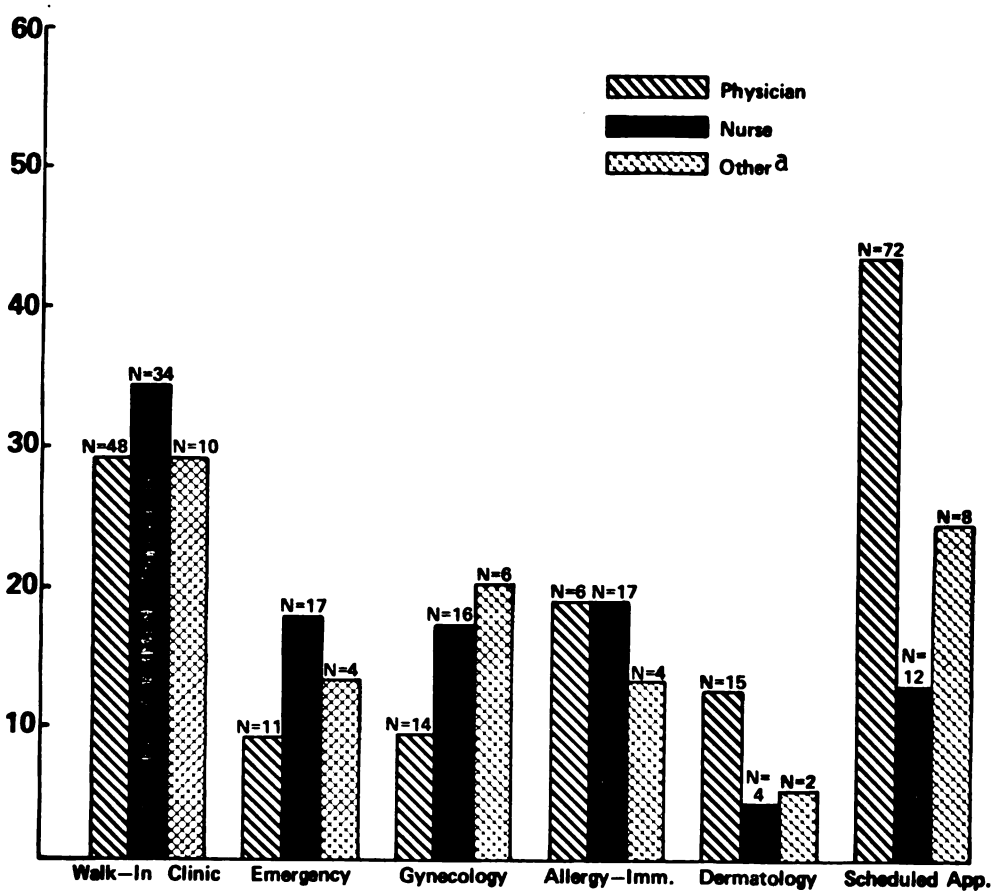

Figure 2.--Specialty personnel patterns in the W.C.C.A. institutions' health programs.

and 8.7 percent of part-time staff were listed in the same specialty area. Gynecological services represented 2 percent of full-time staff and 24.3 percent of part-time staff. Furthermore, pediatrics represented 2 percent of the full-time staff and 1 percent part-time, whereas ophthalmology represented 1 percent full-time and 6.8 percent part-time staff. Under the category "other," representing other specialty areas, the full-time/part-time areas were comparable, with an average of 17 percent.

Gynecological service is classified as a primary-care component. It was evident that most of the services provided for this age group were in the area of primary care. However, it should be noted that the number of gynecologists serving on a full-time basis was limited.

Figure 3 illustrates the staffing patterns of the major clinical services. It shows a total of forty-eight physicians (29 percent), thirty-four nurses (34 percent), and ten (29 percent) other types of personnel staffing the walk-in clinic. Seventy-two physicians (43 percent), twelve nurses (12 percent), and eight (24 percent) other types of personnel were assigned for scheduled appointments.

In terms of the emergency service, the staff comprised eleven physicians (7 percent), seventeen nurses (17 percent), and four others (12 percent). The gynecological clinic reported a staff of fourteen physicians (8 percent), sixteen nurses (16 percent), and eighteen others (18 percent). In addition, the allergy-immuniczation clinic reported six physicians (17 percent), seventeen




[a]Aides, orderlies, physician assistants, nurse practitioners.

Figure 3.--Staffing patterns by clinical areas of the W.C.C.A. institutions' health programs.

nurses (17 percent), and four others (12 percent) as staff. The dermatology clinic staffed fifteen physicians (9 percent), four nurses (4 percent), and twenty others (5 percent).

According to Figure 4, nurses comprised the largest professional component employed by university student health services. The figure further points out that a total of 152 full-time registered nurses (40 percent) and 35 (46 percent) part-time registered nurses were employed by the various institutions. Also, they were staffed by seventeen (4 percent) full-time licensed practical nurses and eight (11 percent) part-time licensed practical nurses. Nurses' aides represented 9 percent of the full-time staff (thirty-six) and 4 percent of the part-time staff (three). The several levels of nursing skill provide continuity of care, which is essential in the delivery of quality health services.

Among other technical personnel, the data show that twenty-three (6 percent) full-time X-ray technicians and three (4 percent) part-time X-ray technicians were employed; laboratory personnel accounted for sixty-four (4 percent) full-time employees and three (4 percent) part-time employees; three (1 percent) full-time physician therapists and four part-time physical therapists were employed; four (1 percent) full-time dental hygienists and one (1 percent) part-time dental hygienist; nine (2 percent) full-time dieticians and four (5 percent) part-time dieticians were employed.

In spite of the emphasis being placed on health education as a preventive measure, there were only three (1 percent) full-time

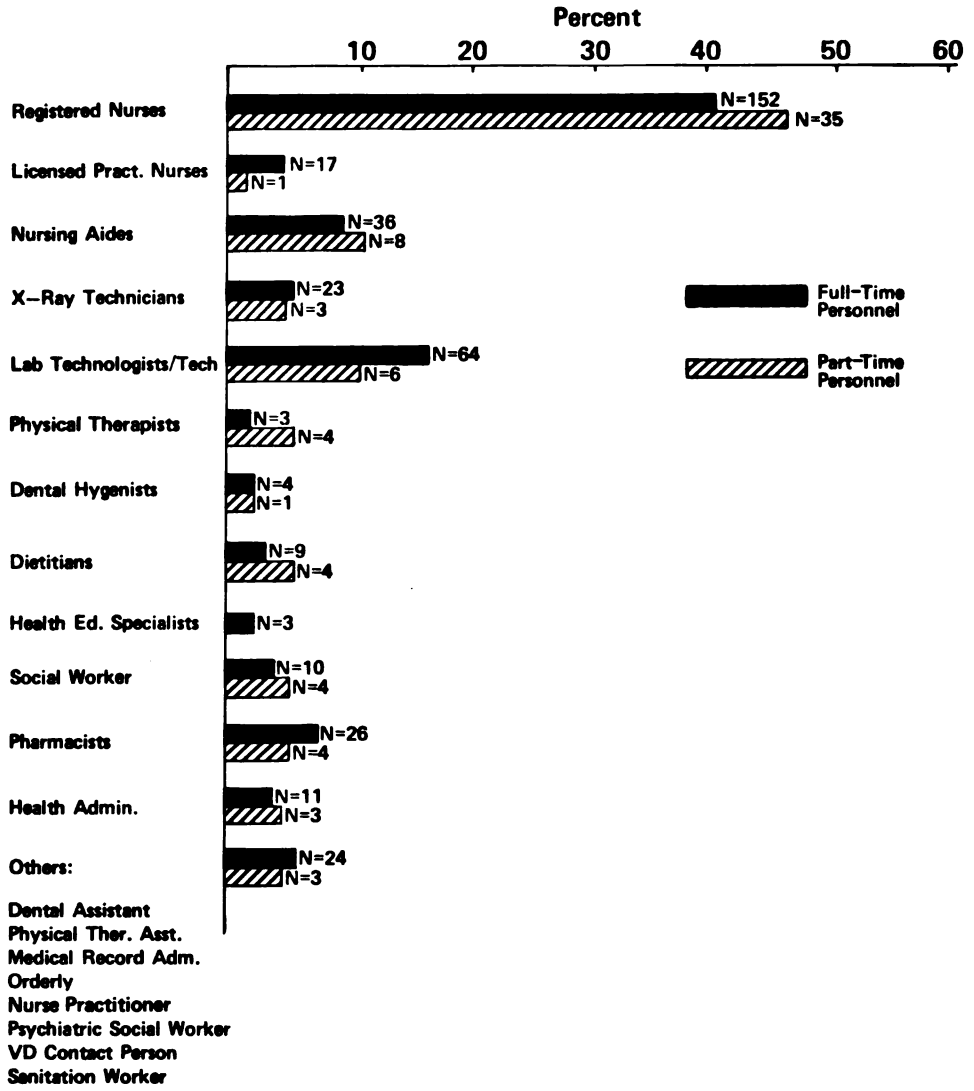



Figure 4.--Allied health personnel staffing patterns of the W.C.C.A. institutions' health programs.

health education specialists listed as staff. Social workers comprised approximately 3 percent (ten) of the full-time staff and 5 percent (four) of the part-time staff. These two professional groups usually serve in a patient advocacy role.

A further breakdown shows that twenty-six (7 percent) full-time and four (5 percent) part-time registered pharmacists were employed. Health administrators represented eleven (3 percent) of the full-time staff and three (4 percent) of the part-time staff.

It should be noted that a wide variety of health personnel is maintained to assure adequate care for students and other health-related activities of these institutions.

## Methods of Financing

The cost of health care has been a prime concern within the university setting as well as in the community at large. There has been a continuous effort to determine the most feasible means of financing the delivery of college health services. In assessing this objective among the Western Chicago Conference Association institutions, it was found that there was a wide variance in their annual operating budgets.

Table 21 represents the annual operating budget allocated to each W.C.C.A. institution's health program. Although the majority of the W.C.C.A. schools spent from one to two million dollars for their health programs, there seems to be no relationship between the size of the school population served and the amount of money allocated. Fifty percent of the Cluster I and Cluster II

schools are in the same spending category as the Cluster III schools.

Table 21.--Estimated annual operating budget of the W.C.C.A. institutions' health programs.

| Budget Sizes | Cluster | | | |
|---|---|---|---|---|
| | I | II | III | IV |
| $500,000 | - | - | - | - |
| $500,000-$1,000,000 | 1 | 1 | - | - |
| $1,000,000-$2,000,000 | 1 | 1 | 3 | 1 |
| $2,000,000-$3,000,000 | - | - | 1 | 1 |
| $3,000,000 | - | - | - | 1 |
| Total number reporting | 2 | 2 | 4 | 3 |
| Percent of universities' budgets by clusters | 18% | 18% | 36% | 27% |

Funding sources for the W.C.C.A. institutions, however, are different between and within clusters. According to Table 22, student fees and general funds seem to be the most prevalent funding mechanism for health programs. Approximately 55 percent of the institutions received the majority of their health funding from student fees, and 45 percent were funded chiefly through general funds of the respective universities.

Since one of the chief sources of funding is student fees, Table 23 shows the institutions that have an identifiable, separate student health fee. It indicates that the W.C.C.A. schools seem to

Table 22.--Funding sources of W.C.C.A. institutions by approximated funding sources.

| | Revenue | Student Fees | Third-Party Payment | General Funds | Other |
|---|---|---|---|---|---|
| Cluster I | | | | | |
| School A | 81.0% | 10.0% | - | 9.0% | - |
| School B | | | Did Not Report | | |
| Cluster II | | | | | |
| School A | 10.0% | 0.0% | 0% | 90.0% | 0% |
| School B | 20.0% | 80.0% | 0% | 0.0% | 0% |
| Cluster III | | | | | |
| School A | 9.8% | 10.4% | 0% | 79.8% | 0% |
| School B | 25.0% | 50.0% | | 0.0% | 0% |
| School C | 0.0% | 96.0% | 0% | 4.0% | 0% |
| School D | 0.0% | 90.0% | 0% | 10.0% | 0% |
| Cluster IV | | | | | |
| School A | 0.0% | 0.0% | 0% | 100.0% | 0% |
| School B | 16.0% | 0.0% | 16.0% | 68.0% | 0% |
| School C | 15.4% | 68.5% | 7.0% | 4.1% | 5.0% |

be equally divided in identifying a separate student health fee. The Cluster I and II schools were split equally on this point, whereas Cluster III had more schools identifying student health fees than not; but Cluster IV schools are just the reverse. The

average fee charged students for their health cost is approximately $25.00 per academic term.

Table 23.--Identifiable separate student health fee.

| Cluster | Yes | No |
|---|---|---|
| I | 1 | 1 |
| II | 1 | 1 |
| III | 3 | 1 |
| IV | 1 | 2 |
| Total number reporting | 6 | 5 |
| Percent of identifiable health fee by cluster | 54% | 46% |

Over the past two or three decades, health insurance as a source of payment has expanded rapidly in the United States. Third-party payment has also emerged on university campuses as a major source of supplementing health care coverage for students, faculty, and staff. Table 24 reveals that eight institutions (72 percent) listed commercial insurance carriers as providing supplemental health insurance coverage for their student body. In addition, five institutions (45 percent) indicated Blue Cross/Blue Shield as being available for student coverage; one institution (.9 percent) indicated a self-administered health insurance plan. It should be pointed out that most of the institutions listed the availability of more than one type of insurance carrier. Two institutions

reported that student coverage was through parents' Blue Cross/ Blue Shield coverage.

Table 24.--Number of universities indicating the availability of supplemental health insurance coverage by clusters, 1974-75.

| Cluster | Commercial Insurance | Blue Cross/ Blue Shield | Self-Administered | HMO |
|---|---|---|---|---|
| I | 1 | 1 | 1 | - |
| II | 2 | 1 | - | - |
| III | 3 | 2 | - | - |
| IV | 2 | 1 | - | - |
| Total number reporting[a] | 8 | 5 | 1 | - |
| Percent of institutions reporting supplemental insurance | 72% | 45% | .9% | 0% |

[a]Some institutions reported coverage under more than a single type of health insurance.

The scope of insurance coverage and the nature of insurance policies greatly affect the quality of health care of students. An analysis of Table 25 shows that Cluster III and IV institutions provided more health benefits through their student health insurance plans than did the other clusters. Clusters I and II did not differ substantially from each other. However, as indicated in Table 21, Cluster III and IV institutions spent more than one million dollars

for coverage, but for this expenditure they cover a larger population base and offer more insurance benefits.

Table 25.--Types of health benefits offered by health insurance plans of the W.C.C.A. institutions.

| Type of Benefit | Cluster | | | |
|---|---|---|---|---|
| | I | II | III[a] | IV |
| In-patient care | 2 | 2 | 3 | 3 |
| Out-patient care | 1 | 2 | 3 | 2 |
| Surgical expenses | 2 | 1 | 3 | 3 |
| Abortion | - | - | 3 | 1 |
| Dental | - | - | 1 | 2 |
| Ambulance service | 1 | - | 3 | 2 |
| Emergency treatment | 2 | 1 | 3 | 3 |
| Psychiatric care | 1 | 2 | 1 | 2 |
| Counseling | 1 | 1 | - | 1 |
| Diagnostic/X-ray/laboratory | 1 | 1 | 3 | 3 |
| Drugs | 1 | 1 | 1 | 2 |
| Percent of benefits covered by student's health insurance in each cluster | 54% | 50% | 72% | 72% |

[a]One school did not report.

Most insurance policies, nonprofit and commercial, are written with cost-sharing clauses, limitations, and exclusion of certain services. It is felt that if consumers assume a part of the cost of medical care, they will become more cost conscious and utilize the services wisely. Examination of Table 26 indicates that the majority of W.C.C.A. institutions' insurance plans provided

for some form of exclusions. Eighty-one percent of the institutions reported exclusionary clauses for certain services. Specific services for exclusion were not reported. Institutions in Cluster III listed a greater number of exclusions and cost-sharing practices than did institutions in other clusters.

Table 26.--Types of insurance exclusion of the W.C.C.A. institutions.

| Cluster | Co-insurance | Deductibles | Exclusions | Other |
|---|---|---|---|---|
| I | - | - | 2 | - |
| II[a] | 1 | 1 | 1 | - |
| III[a] | 2 | 3 | 3 | - |
| IV | - | 1 | 3 | - |
| Total number reporting | 3 | 5 | 9 | - |
| Percent of schools with insurance exclusions by cluster | 27% | 45% | 81% | 0% |

[a]One school in Clusters II and III did not respond.

According to Table 27, only four ( 36 percent) institutions surveyed offered maternity care as an optional health benefit, whereas six (64 percent) institutions offered no provision for such care. No Cluster I universities indicated that maternity care was provided.

Table 27.--Provision of optional maternity benefits.

| Cluster | Yes | No |
|---|---|---|
| I | - | 2 |
| II | 1 | 1 |
| III[a] | 2 | 1 |
| IV | 1 | 2 |
| Total number reporting | 4 | 6 |
| Percent of institutions with optional maternity benefits | 36% | 54% |

[a]One school did not respond.

Table 28 indicates that it is inappropriate to consider the average annual premium shown in Table 28, part a, to be a direct multiple of the average premium per term shown in that table because some institutions have quarter and others semester curricula. The reported figures are an average by term and not by week, because of the variance in length of each term. Table 28, part a, shows that the annual premium per student was not related to cluster size. Part b of Table 28 shows that married students without children paid less by the term at the larger schools. On an annual basis, the premiums for Clusters II, III, and IV were approximately the same, but Cluster I premiums were noticeably higher. The same pattern for term insurance seems to hold for the married couple with one child, but the annual insurance premium was not related to cluster size. In Addition, Table 28, part d, shows that the annual premium

for the married couple with children was about the same regardless of school size, whereas the cost of term insurance was decidedly less in Cluster IV than in the other clusters.

Table 28.--Average term and annual premiums for different population groups.

| | Cluster | Term | Annual |
|---|---|---|---|
| a. Premium for student only | | | |
| | I | $22.50 | $ 30.00 |
| | II | 20.00 | 30.00 |
| | III | 15.00 | 30.00 |
| | IV | 17.00 | 38.00 |
| b. Premium for student/spouse | | | |
| | I | 67.50 | 112.00 |
| | II | 99.00 | 80.00 |
| | III | 54.75 | 81.00 |
| | IV | 39.00 | 95.00 |
| c. Premium for student/ spouse/children | | | |
| | I | 67.50 | N/A |
| | II | 91.00 | 155.00 |
| | III | 75.50 | 128.00 |
| | IV | 60.00 | 193.00 |
| d. Premium for student/ children | | | |
| | I | 67.50 | N/A |
| | II | 62.00 | 107.00 |
| | III | N/A | 104.00 |
| | IV | 38.00 | 108.00 |

Financing of athletic or sports medicine has caused some unique problems for university health care programs. Table 29 provides no clear evidence of a common method for insuring against athletic injuries, although the most frequent form of coverage was

through an insurance program administered by the athletic department. All entries under the "other" column in the table indicate athletic departments with insurance programs.

Table 29.--Financing of athletic medicine through different types of health insurance plans.

| Cluster | Commercial Insurance | Self-Insurance | Student Health Budget | Other[a] |
|---|---|---|---|---|
| I | 1 | - | 1 | 1 |
| II | 1 | - | - | 2 |
| III | 2 | 2 | 2 | 2 |
| IV | 1 | 2 | 1 | 1 |
| Total number reporting | 5 | 4 | 4 | 6 |
| Percent of type of health ins. | 45% | 36% | 36% | 54% |

[a]Athletic department offering its own insurance program.

Table 30 reveals the total annual expenditures for athletic medicine. It points out that the Cluster IV institutions annually expended the largest amount of money on athletic medicine. It is felt that the scope of the Cluster IV institutions' athletic programs explains this difference. However, the Cluster II schools appear to be out of line at the top level of their cost range, given the size and scope of their athletic programs, which suggests that further study be undertaken to examine the nature, scope, and type of athletic injury incurred in Cluster II schools.

Table 30.--Ranges of cost for athletic medicine in the W.C.C.A. institutions.

| Cluster | Ranges ($) |
|---|---|
| I | N/A |
| II | $ 7,500-30,000 |
| III | 15,000-17,900 |
| IV | 28,000-75,000 |

## Eligibility for Service

Establishing criteria to determine consumer eligibility for medical care services has often been an issue surrounding the delivery of health care in university settings. In most institutions of higher education, eligibility has been established by the number of credit hours per term registered by students. An examination of Table 31 shows that six institutions (55 percent) indicated that less than six credit hours will allow a student to receive health services, whereas five institutions (45 percent) required six to twelve credit hours. No institution reported twelve or more credits as a requirement for service, but some institutions declared part-time students eligible for medical care on a fee-for-service basis.

In assessing eligibility for the university community at large, most institutions reported that, as a general rule, faculty, staff, and other nonstudents were not eligible for health care, as summarized in Table 32. However, four (36 percent) institutions did report that emergency and workman's compensation cases were

treated at the student health facility. Those institutions that maintained an accredited hospital rather than an infirmary also reported that nonstudents were eligible for in-patient service.

Table 31.--Eligibility for medical care based on number of credit hours enrolled for by students per term.

| Cluster | Less Than 6 | 6-12 | 12 or more |
|---|---|---|---|
| I | 2 | - | - |
| II | - | 2 | - |
| III | 3 | 1 | - |
| IV | 1 | 2 | - |
| Total number reporting | 6 | 5 | - |
| Percent eligible and noneligible of the W.C.C.A. | 55% | 45% | 0% |

Table 32.--Eligibility and noneligibility of faculty, staff, and other nonstudents of the W.C.C.A. institutions.

| Cluster | Yes | No |
|---|---|---|
| I | 1 | 1 |
| II | - | 2 |
| III | 1 | 3 |
| IV | 2 | 1 |
| Total number reporting | 4 | 7 |
| Percent eligible and noneligible of the W.C.C.A. institutions | 36% | 64% |

## Summary

This chapter presented the results of the study, which were analyzed according to the following criteria: (1) administrative patterns, (2) scope of services, (3) staffing patterns, (4) method of financing, and (5) eligibility for services.

There is evidence that the majority of the institutions functioned under a separate administrative framework that allowed for an independent, coordinated, administrative structure for student health care delivery on campus. This particular pattern appeared to be the formal structure found in the majority of universities.

The findings of the study showed a board structure that was advisory in nature, with the majority of its members consisting of students, medical staff, and faculty representation. Although the board varied in size, there was no apparent relationship between the board size and the cluster size.

The study also showed that, in most cases, the chief executive officer of the health programs was a physician. In addition, the majority of the institutions operated under an indirect line of authority. The size of the institution appeared to have no influence on the nature and comprehensiveness of these services.

The writer found a majority of the health services provided for students only, although it was evident that others, such as student dependents, faculty, and staff, received services under certain conditions. In addition, programs such as health education

were administered by health education specialists, physicians, nurses, and others.

Further results indicated that mental health services were provided to students only, and that these services were provided by psychologists, psychiatrists, social workers, and counselors.

The findings gave some evidence that there was a tendency to use community hospitals and teaching hospitals rather than other types of community service facilities. This tendency to utilize the teaching hospital perhaps was influenced by the availability and accessibility of such a facility on campus. Furthermore, the findings revealed that a majority of the institutions had an in-patient care facility, with bed capacities ranging from twenty-five to seventy-five beds. Evidence showed that from 1970 to 1974 these in-patient care units varied in their utilization rates. One institution recorded a notable decline from 1972-74, but the reason for this decline was not ascertained.

The data revealed that the health programs of all the institutions were staffed by both full-time and part-time physicians, and one institution employed osteopathic physicians on its staff. Most of the doctors spent an average of ten to twenty minutes in face-to-face contact with the patient. It was apparent that the size of the staff was influenced by the size of the institution. The majority of the physicians were classified as family or general practitioners and functioned under the primary care component. Major clinical services were staffed by physicians,

nurses, and others within the allied health staffing pattern, in which nurses, nurses aides, and laboratory technicians represented the largest number of personnel.

# CHAPTER V

## DISCUSSION OF FINDINGS

The complex changes taking place in higher education have resulted in tremendous changes in college and university health care delivery systems. The increased opportunities and responsibilities expressed by university health programs in the Western Chicago Conference Association have raised questions and concerns that have implications for all higher education health systems. The results of this study indicate that the health care delivery systems of the member institutions vary greatly and that size of an institution has an influence on the comprehensiveness of services and the amount of care provided.

Prior research in the area of university health services has been concerned primarily with studies of organizational patterns, utilization of care, and financing of student health care. This study has been concerned with the governance components of the total health care system and the output of comprehensive services.

The findings of the study support the general contention that the essential components of the W.C.C.A. college health programs must be thoroughly analyzed before quality, efficiency, cost control, and management can be systematically and effectively evaluated. The evaluation of these factors was not the intent of this study. Rather, the analysis of (1) administrative patterns,

(2) scope of services, (3) staffing patterns, (4) finance mechanism, and (5) eligibility criteria was undertaken to determine the influence these components had on the total health care delivery system of each member institution.

## Characteristics of the Sample

The size of the institution and types of students attending were major factors that influenced the development of the college health program. The latter factor is uniquely apparent as married students and their dependents, graduate students, and others are presenting a range of health issues and concerns. These health concerns are placing college health programs in an interesting position of responding to a diverse population group, which is represented in this study of the member institutions.

The immense influence of these demographic features is reflected in each member institution's college health program. The findings of this study revealed that students comprised a large proportion of the health council or board and shared with faculty and staff in the decision-making process. Although less than 50 percent of these students lived in residence halls and dormitories, they provided consumer input to the health care delivery system at the university level.

It is evident that the married student population presents a different type of demand on the health care system, ranging from the need for more manpower service (primary care physicians or family practice physicians) to the need for specialty services (gynecology or pediatrics) for the child-bearing family. Few

institutions of higher learning have been able to respond adequately to this demand. The present study revealed that only one institution had developed a health program for the student dependent. Moreover, there was no significant inclination on the part of the other member institutions to design or develop a specific health program for this population group. Therefore, it is apparent that the W.C.C.A. institutions have a small percentage of married student enrollment that might warrant a health program tailored to this particular population.

It is felt that further study is needed in this area to assess totally the impact this population has on the university health care delivery system.

## Administrative Patterns

The organizational structure of a university health care delivery system and its relationship to the total university system are important. The health system should be organized as an integral part of the educational experience of college students, showing them the importance and value of health as a personal and community asset.

Studies have shown that the appropriate position of a health system in the administrative structure of a college or university is that of a separate department or division. Checking from these data, it was noted that the majority of the W.C.C.A. institutions had a separate unit, functioning independently, for all health care delivery on campus. This organizational/administrative framework allows for a parallel structure within the university administration

that provides equal status to health care delivery, and promotes health planning and integration into the curricular and extra-curricular aspects of campus activity. Of the six institutions that reported this type of organizational structure, one institution reported equal administrative status with the medical school, nursing school, and college of pharmacy. However, the parallel administrative structure of student personnel services, medical schools, and other university hospital and health care authority was not as well represented among the remaining five institutions.

This organizational-administrative pattern reflects the management concern of Farnsworth and others and their continued support for a separate unit structure. Farnsworth contended that including health services under student personnel might at first glance appear to be logical and practical, but it could become less efficient if these services are not placed under an independent, separate structure. He further pointed out that health care delivery under the administrative structure of medical schools is less effective, since deans of medical schools have to contend with responsibilities in their competing departments.[1]

In the near future, the separate structure framework of college health services among the majority of the W.C.C.A. institutions could prove to be of major importance to organizational-administrative management of health care services, since there are nine medical schools among the eleven universities studied. The concern for health service management under the medical school

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[1]Farnsworth, College Health Administration, p. 5.

administrative structure invites further study because of increased demands for medical schools to provide quality medical care to the campus population.

It is apparent in this study that forming a health board or council with representatives of the university community is critically important in the life of any college health care system that is under board-governed institutions. This community-university board relationship and the composition of the health board operate in an academic environment of community and scholarly activities, whereby the health care system is housed in a community health center, and its program is designed and run by representatives of that community. Therefore at this administrative level of health care activity, the university or school health care delivery system will be affected by the input and interest of a professional board.

The findings of the data showed students, medical staff, and faculty comprising the majority of members on the professional boards or councils of the W.C.C.A. institutions and serving in an advisory capacity. However, the active involvement of students could signify the advocate role of a new breed of campus consumers for the sharing of board power along with faculty and medical staff. Out of this vying for power could develop a working relationship among the three groups that might benefit the campus communiversity in its search for quality health care. This new advocate group has been well documented and has received the Ralph Nader "consumer advocate" support from many who are in the college health care field. Such persons as Margaret McKenna, speaking at the Fiftieth

Annual Meeting of the American College Health Association, pointed out that:

> A relatively small, autonomous, and comprehensive facility such as a college health service is an ideal setting in which to pioneer in consumer involvement. It has a clearly identifiable patient population in a defined environment, and they are accessible, articulate, and interested in becoming involved. These are uniquely suitable channels of contact already available.[2]

The health board or council composition of students, faculty, and medical staff could become the strength of the college health care system if provided the proper role, such as decision-policy making, rather than advisory. In this case, the board becomes the body responsible to the administration and communiversity for overseeing the overall functions of the health care system. It would scrutinize the system for accountability, efficiency, cost control, and management. This management function would no longer be between the vice-president for student affairs (or dean of students) and the health director. Instead, the health director would be responsible for medical services management, requiring the medical team to provide quality health care to the communiversity. This is the trend that boards of trustees in hospitals are beginning to follow. Therefore, since college health boards have similar roles as compared with hospital boards--that is, accountability to a constituency group--it would be wise for college health care delivery systems to begin to plan and train their boards for such a role.

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[2]Margaret S. McKenna, "The Role of Students in the Delivery of Health Care," address delivered to the Fiftieth Annual Meeting of the A.C.H.A., Atlanta, Georgia, April 5, 1972.

Another facet of this study was the diversification of board members, who provided viewpoints from different levels of the academic community. These members, such as the vice-president for student affairs, nursing representatives, deans of medical schools, health administrators, and others, contributed advice that had great influence on the health boards, leading one to speculate that these members are just as concerned about health care on campus and the decision-making process as are medical directors, students, and faculty. The omission from the boards of lay persons from the non-academic community was apparent. This factor could become one of great importance, since lay persons are being requested by the federal government to provide input to the health care system at large and at all levels of decision making. Consequently, as the health system at large moves closer to some form of national health insurance, college health care will not escape this valuable resource pool of expertise--the lay person.

There was no apparent evidence of a relationship between the size of the board and the population size of the institutions studied. Board size varied. Several institutions with smaller student populations had a larger board membership than did the larger universities. This fact might be attributed to the smaller institutions having more time to involve their communities in the decision-making process; or perhaps they viewed health care as a priority issue. As these conclusions cannot be substantiated from this study, further research is needed in this area.

Closely related to the health board or council, and a key organizational-administrative position of college health services, is that of the health director. Evidence of this study showed that ten institutions reported a physician as the chief executive officer (manager) of their health program, whereas one institution reported a health professional as the chief executive officer. These findings raise a unique concern of college health services management; that is, the lack of organizational management training of some health directors, who are obviously not trained in management skills. Furthermore, college health programs are recognizing the dire need for management training of their directors. Management skills are vitally necessary for the operation of college health centers that have recently become bureaucratic organizations. This factor had not become so apparent among college health programs until it drew the attention of a Task Force presentation at the Fifth National Conference on Health in College Communities. This presentation pointed out that administrators presently on the job need to re-evaluate their roles, and that their successors should have an opportunity to gain a broadened base of managerial professionalism. It further pointed out that greater attention should be paid to recruiting health service directors of either sex who are not only professionally qualified in medicine or a health-related science, but who are also professional administrators.[3]

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[3]American College Health Association, Task Force VII, "Health Manpower in College Communities," p. 12.

Contrary to commonly accepted practice, the health director (manager) does not have to be a physician, but should be someone at the doctorate level in order to give the program proper attention at the highest level of university administration. However, if the chief executive officer is a physician, he should be paid a salary comparable to the highest level of university administration. This factor minimizes the competition by other campuses to lure the director away with a higher salary. In addition, these doctoral-level persons and physicians who have returned to school to acquire the professional degree of Master of Public Health or training in health administration are qualified to provide professional administrative experience to college health programs, and in most cases have obtained some management training in organizational-management theory.

Within the university hierarchy, health services should occupy a position no less than that parallel to the university administration. The health services department, in most cases, is managed by the dean of students (in the larger institutions, it is the vice-president for student affairs) and administratively operated by a health director. Moreover, as described in this study, line authority (direct or indirect) allows the health director to report to the dean of students, vice-president for student affairs, provost, chancellor, or president. As defined, direct authority refers to that authority dictated to the executive officer by someone at the chancellor, provost, or presidency level, whereas indirect

authority is that authority dictated either at the level of the vice-president for student affairs or dean of students.

This study revealed that the majority of the institutions operated under an indirect authority structure. This type of structure does not appear to be unusual, since most large colleges and universities have this type of organizational/administrative framework. However, as the study revealed, three institutions operated under the direct authority structure. Such an authority structure could possibly indicate a trend in organizational-administrative management as health care becomes more of a number-one priority issue among the larger colleges and universities. Support for this thesis is somewhat apparent since the data of the study showed that two of the larger institutions of Clusters III and IV indicated this type of structure, in contrast to five institutions of the same clusters that revealed an indirect authority structure. Moreover, if college health boards follow the current proposal of some hospital boards--that is, requiring their medical director to be accountable to their board--the college health director (manager) will be required to become accountable to his board and serve at the pleasure of the board. This would allow the college health director to represent the board as a negotiator, in which capacity he would carry out decisions and policies made by the board for the communiversity and have direct line authority to the president, provost, or chancellor. This study showed a similar type of line authority within one of the institutions studied; however, it was

evident that this administrative pattern was not operative among the remaining institutions. It is felt that further study is needed in this area.

## Scope of Services

Ths scope of services offered by the W.C.C.A. institutions is influenced significantly by the characteristics of the majority of the population served--young adults. Medical/health practice administered to this age group requires special skills and experience. The physician or other medical/health personnel serving college students would not be expected to utilize skills and diagnostic techniques designed to serve the newborn or the geriatric patient. Instead, the physician and other health professionals concerned with a population dominated by the young college student must be familiar and experienced with areas of comprehensive care, preventive care, and health education.

The shift to comprehensive services that focus on comprehensive care and the provision of services that are preventive in nature has gradually invaded the colleges' and universities' health programs. This study's findings showed that the scope of services offered in the health programs of the W.C.C.A. was comprehensive in nature and provided preventive care rather than episodic care.

These findings revealed that the majority of the member institutions provided the comprehensive health services that most colleges and universities offered. Somewhat preventive in nature, these services did not vary significantly among institutions. Although Cluster I institutions offered more services than the other

institutions, it is not clear if there is a relationship between the size of the cluster and the availability of services. However, there is evidence of a pattern in offering services. Of the eighteen services provided, nine services were consistently offered by all of the eleven institutions. The remaining nine services were either split among the institutions or not offered at all by some. This pattern could be the result of the emphasis placed on certain preventive or diagnostic services at an individual institution.

Emphasis on the preventive or diagnostic nature of some health services was made apparent in this study. As the data showed, a majority of the institutions did not require an annual health examination of their students, but did require examinations of their athletes. Even though this pattern exists at most universities, students will usually obtain a physical examination at some point in their academic careers. Those member institutions that required new students to obtain examinations prior to entrance into their academic programs seemed to use this requirement as part of their admissions criteria; however, in most cases it was not used as a deterrent to entrance. Rather, a health education and preventive approach is used, since this is a healthy population that is not subject to chronic or acute illnesses. Some institutions required their faculty and staff to receive health examinations, an apparent requirement of the employment policies of the individual institutions. These factors appear to reflect the individual nature of each member institution's health program and its constituents.

Several groups constitute the recipients of university health care: the students, student dependents, faculty, and staff. The data of this study revealed a very low percentage of offering of services to student dependents, faculty and staff. This low offering may be attributed to the lack of a health program tailored to these particular groups. Moreover, traditional university health services were originally developed to serve the health needs of the student population; but in recent years demands for these services have come from other community groups. On the basis of these data, particularly the demographic data, this trend will possibly escalate in the near future. Therefore, colleges and universities should begin to redesign their health programs to meet the needs of this group, particularly the student dependents who will require primary gynecological services. These services, as previously mentioned, have increased among the member institutions under the part-time category. If these services continue to increase, they will provide opportunities for continuity of care and basic preventive care for student dependents as well as for faculty and staff.

Equally important to the success of colleges' and universities' comprehensive health care services is the provision of organized health programs for their consumers. This study revealed that the majority of the member institutions had an educational program for their consumers. Although these programs were not formalized at the institutions under scrutiny, they represented another nonclinical modality to college health care. This approach,

if continued, would assist the university health centers in orienting their services toward preventive care and health education. This shift from episodic to comprehensive care was supported by the Fifth National Conference on Health in College Communities and its Task Force, which pointed out that if the students of the communiversity are attuned to preventive care, the college health service will have taken its place, along with the traditional academic departments, in promoting its teaching function.[4] This view would appear to place health education within the academic arena and give it academic status.

The recognition of the academic status of health education is apparent among the member institutions. The study revealed that the majority of the health education programs were administered by physicians or nurses. However, there seems to be no stereotyped role for administering the health education program. The frequency of physicians and nurses responsible for administering the health education program seems to be equally distributed across institutions. There is an increasing number of schools looking to health education specialists to administer their programs. It is not clear whether or not these individuals have graduate or clinical degrees, or backgrounds in health administration.

Although this factor is not clear, some schools reported that administrators, graduate assistants, and all health faculty personnel participated in administering the health education program. Furthermore, some schools reported that their nurses presented

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[4]Ibid., p. 5.

special sessions at residence hall meetings instructing females on gynecological problems and other health programs. The majority of institutions offer a health education program for their consumers; moreover, all of the Cluster III institutions offered health education programs and could possibly provide leadership in the continued development of formalized programs. If health education programs of the member institutions are to continue to receive academic status, the programs must utilize professional personnel.

Similar to health education as a preventive modality is the category of mental health services. These services available at colleges and universities provide a wide scope of health care, both direct and indirect, to the student population. The staffing of these services is one of the main ingredients for the effectiveness of the overall program. Some authorities, such as Farnsworth, feel that a health center should have at least one psychiatrist for every 2,000 students. Others feel that, in some cases, the use of supportive nursing care, which removes the student from a stressful environment for a short period of time, is a workable staffing process.

In many universities and colleges, the only mental health resource is the counseling center. Even though adequate, a great portion of mental health service is carried out without coordination with the health centers. Any health services, particularly mental health, should use all resource personnel and work toward better integration of services and resources among them. This study showed a staffing composition of psychologists, psychiatrists,

social workers, and counselors actively employed in the member institutions' mental health programs. An examination of the data revealed that all of the member institutions used the psychiatrist and the majority employed the services of the psychologist, whereas some made use of the services of the social worker and counselor to provide mental health to the student population.

This apparent pattern of staffing and utilization could possibly account for the influence of the medical schools at both the smaller and larger institutions. This relationship and influence can benefit both students and health centers if properly coordinated. Students and health centers would get the services of additional staffing personnel made up of residents, clinical interns in psychology, and interns in counseling and guidance. Also, this medical and nonmedical discipline approach to mental health would provide a flexible training program for psychologists, psychiatrists, social workers, and counselors. This appears to be the team approach that is being employed throughout health care, and could benefit both mental health and preventive health care. Those institutions with or without the influence of a medical school may benefit from the continued utilization of social workers and counselors and other mental health personnel. This staffing pattern was apparent among three of the larger member institutions, and clearly represents the team approach of mental health services among these institutions.

The demand to provide mental health services to other university groups, such as faculty, staff, and others, has increased because of many factors, both environmental and nonenvironmental.

However, among a majority of the institutions studied, these services are for students only, with very few exceptions. Although mental health services for students only appears to be the traditional pattern among colleges and universities, it is gradually changing because of the request for services from others in the communiversity. The member institutions will surely not escape such requests. Their mental health services programs undoubtedly will be severely scrutinized for continuity of care, accountability, budget allocation, and personnel qualifications. An assessment of these factors could possible contribute to the inevitable change of mental health services for students only to include other university groups.

The preventive and comprehensive nature of athletic medicine is just as important as preventive mental health. In fact, an athlete needs a sound body and mind to engage in competitive sports both "on the field" and "off the field." The data of this study revealed that all institutions offered total health care services to this particular group; however, detailed data concerning the types of services were not ascertained. This would invite further study to assess the types of medical services and programs that the member institutions have for their athletes.

The medical referral system of college health programs to other campus and noncampus resources is vital to the success of comprehensive and preventive care. This study revealed that community hospitals, university teaching hospitals, ambulatory centers,

and other facilities were the primary referral centers for medical services for the member institutions.

An examination of the data also showed that a majority of the member institutions utilized the community hospital and university teaching hospital for medical services. Such services as emergency services, special surgical operations, in-patient care, and other specialized services are carried out in these centers and account for a high rate of utilization by the medical staff and other personnel. This particular phenomenon could be the result of availability and accessibility of the centers; physicians' and others' affiliation with campus health centers, as well as hospital centers; joint hospital and campus appointments; staffing availability; contractual agreement between both facilities; available beds; research facilities; and other factors. In contrast is the less frequent use of the ambulatory center, specialty clinic, free clinic, family planning agency, and private group clinics--perhaps because they lack some of the above-mentioned factors of the community hospitals and university hospitals. Furthermore, community hospitals, and particularly university teaching hospitals, are traditional medical centers with long-established histories in student medicine. This could possibly reflect the influence of their medical school's curriculum. In fact, the studied institutions revealed this pattern among their Cluster III and IV institutions that had established medical schools. Therefore, if there is a relationship, the medical schools' curricula would dictate an association with these centers, particularly the teaching hospitals.

The identification of these centers as primary care facilities was somewhat confusing to the respondents of this study. One can conclude that the community hospitals and university hospitals were used as resource centers and served to supplement the health care facilities of the institutions.

In addition to the community and university teaching hospitals, some member institutions maintained in-patient care facilities. According to the data presented, eight institutions provided in-patient care and three did not. All but one of these in-patient facilities were accredited by the Joint Commission on Hospital Accreditation.

Generally, the care provided in college health centers is for simple conditions and does not require extensive use of the in-patient facility. In fact, the average length of in-patient care in a college health center for students is less than for any other campus population. Colleges and universities with medical resource accessibility to community and university teaching hospitals will use the in-patient care facility of these centers for emergencies, major surgery, or specialized care; then, in some cases, the student is sent back to the college's in-patient facility to recover.

The bed capacity of any health center, particularly the college health center, is important and usually represents the population size of the campus. The data of this study pointed out that the larger institutions had greater bed capacities as compared to the smaller institutions with smaller capacities. The study

also revealed a bed capacity range of twenty-five to seventy-five, with the common break between the larger and smaller institutions around twenty-five beds. The lack of complete reporting of data failed to provide a true assessment of the data; therefore, further study is needed in this area.

Utilization rate is an important factor in maintaining an in-patient care facility in college and university health settings. This study revealed an average decline rate of utilization in all institutions over a five-year period. One institution in Cluster III showed the fewest utilization days of the entire group studied, but there are no empirical data about the reason, which raises a potential problem for further study. However, Cluster IV institutions in 1971-72 showed a significantly lower decrement in in-patient days than their trend line indicates. It would be interesting to see if this is an anomaly or explainable in organizational or structural terms.

## Staffing Patterns

The staffing patterns of colleges' and universities' health centers are very important in delivering quality health care. Over a period of time these patterns have undergone tremendous changes, which have engaged personnel in re-evaluating their roles as members of the college health care team. The re-evaluation of these roles has served as a check-and-balance system for the services performance of some members, and has led to the question of adequate staffing of some college and university health systems.

Therefore, the difficult empirical question is: What types of personnel are available to perform the necessary tasks to carry out the jobs in the college health center?

Through investigation this study found that both full-time and part-time personnel were employed in the member institutions, which reflected a staffing pattern and an average staffing range within each cluster. Examination of the data showed that the larger institutions had a larger full-time and part-time staff as compared with the smaller institutions. This factor appeared to indicate that: (1) The larger institutions had larger health budgets, which enabled them to attract a larger staff; (2) The influence of the medical schools at some of the institutions enabled them to attract a larger staff, particularly physicians and other health personnel; and (3) The potential to carry on research and receive academic appointments in other departments was a contributing factor.

In comparison, the smaller institutions had smaller staff sizes and ranges, thereby representing a smaller full-time and part-time personnel pattern. This difference is obviously associated with the aforementioned factors attributed to staffing size and range. It is also evident that these differences are related to the size of the institutions within each cluster.

One of the key personnel staff members on the health care delivery team is the physician. He is the person who anchors the team. Moreover, the size of the medical staff is related to the population size of the student body, which is evident among the

studied institutions. They showed that the larger institutions had a larger full-time and part-time medical staff, whereas the small institutions had a smaller staff. In addition, one institution showed a sizable staff of osteopathic physicians. The relationship between size of the physician staffing pattern and population size is evident; nevertheless, other contributing factors such as prestige of institutions, research facilities, salary, and other factors were operative. Examination of the data showed a larger part-time physician staffing pattern within two of the smaller institutions, which probably reflected the need to augment their medical personnel. This type of pattern could relieve these institutions of their budget constraints, if these constraints exist. Evidence of this factor was not ascertained; therefore further research is needed in this area.

The physician's relation to the patient was quite apparent in this study. The data revealed that the majority of the institutions had physicians seeing students from ten- to thirty-minute intervals, and no physician spent less than ten minutes or more than thirty minutes with a patient. This held true for all institutions, regardless of size. Such a pattern naturally does not account for the time psychiatrists spent with students or the one-to-one therapy conducted by the psychiatrist, nor does the pattern lend support to the "task analysis" and use of time by this particular staff member of the walk-in clinic and the scheduled appointment clinic.

The specialty areas of health services personnel vary among colleges' and universities' health systems. Since the health centers are basically ambulatory centers, the need for specialists is somewhat limited. Moreover, the specialty areas that are maintained and used are staffed by medical personnel with specialty training. According to the study, the largest full-time and part-time specialty area was family or general practice. In comparison, the internist represented the highest specialty staffing in the full-time category only, whereas the gynecologist rated highest in the part-time category. These differences could account for the typical pattern of staffing internists at the full-time level in most college health centers and the staffing of gynecologists at the part-time level. In fact, gynecological services are not requested by the student population at most colleges and universities. But, as indicated in a previous section of this chapter, under "characteristics of population," this pattern could reflect an increased demand for these services as the young family-bearing student population continues to increase.

Equally important in the delivery of quality health care in colleges' and universities' health systems is the staffing patterns of the major clinics. Organizationally, these clinics make up the out-patient departments, or ambulatory care departments of the health centers, which are usually staffed by physicians and other health professionals. This study showed that physicians and nurses were the primary staff personnel for all of the clinics--not an unusual finding, since they are key personnel for any health

care system. However, further examination of the data showed that the walk-in clinics and scheduled-appointment clinics staffed the largest number of personnel, which would indicate that they are the major clinics utilized by students. The emergency, gynecology, allergy-immunization, and dermatology clinics were staffed with fewer people, but were operative. These data present the types of services requested and provided to the college student population of the studied institutions.

The staffing pattern of the nurse-practitioner in the college health care delivery system is a key pattern in assessing quality health care. According to this study, the number of full-time registered nurses represented the largest health professional group employed, outnumbering physicians in this category. A further analysis of the data indicated that at the different levels of nursing, licensed practical nurses and nurses' aides, both full time and part time, were also well represented, but not at the numerical level of the registered nurse. Moreover, the size of the nursing staff of the studied institutions provided evidence of the vital role of the nurse-practitioner and her function on the health care team. The task analysis of the nurse-practitioner was not undertaken in this study because of the nature and design of the study; therefore, this variable could be measured by further study to determine the influence it has on the total system.

The data showed that, among the other health professionals, X-ray technicians, full time and part time, were employed by most of the institutions. Full-time laboratory technicians also accounted

for a large percentage of the staffing pattern among the technical personnel, which typifies a pattern of most colleges and universities that have laboratory services.

Further analysis of the data showed full- and part-time physical therapists, dental hygienists, and dieticians. Each staffing category represented a small percentage of the total health care staffing of the institutions. Therefore, it is apparent that the low staffing percentage of these professionals would invite further study to ascertain if the institutions are understaffing this vital area.

The staffing pattern of the health education specialist among the member institutions was appallingly low, in spite of the emphasis being placed on health education as a preventive modality. The data revealed only three full-time health educators. The other category that represented a position held by the health educator was that of social worker. The findings of the study revealed ten full-time and five part-time social workers among the institutions. The roles of these two professionals--health education specialist and social worker--are quite clear and have been thoroughly researched and documented; there is no need to expound further on this area. However, it is a vital area that the member institutions should consider in their staffing priorities.

A further examination of the data showed a full-time and part-time staffing of registered pharmacists and health administrators. The latter represented a small ratio of the staffing pattern of the health care team. As the health care system

continues to expand, the health administrator and other health professionals will probably be called upon to take on additional responsibilities and roles. Therefore, it would appear logical for the member institutions to begin immediately to re-evaluate their present health staff and to move toward a systematic "task analysis" evaluation of these staffing patterns.

## Methods of Financing

The escalating cost of health care within the academic community is an intense concern of some colleges and universities. To minimize this concern, some institutions have attempted to: (1) institute cost control, (2) maximize efficiency, and (3) adopt strict fiscal accountability. Although some institutions have attempted to establish cost control, there has not been a systematic effort toward devising a more adequate means to finance college health care; costs continue to rise at an astronomical rate.

This study revealed that a majority of the Western Chicago Conference Association institutions have an annual operating health budget of between one and two million dollars. Although there appears to be no relationship between the size of the institution and the money allocated, it is apparent that the funding sources are different between clusters and within a cluster. In fact, 50 percent of the smaller institutions are in the same spending category as some of the larger institutions. This opens up one or two possibilities: that these larger institutions are underbudgeting their health care programs, or that the smaller institutions are not efficiently financed--a point this study is unable to answer.

Further examination of the data shows that the most prevalent funding sources among the member institutions were student fees and general funds. The average fee charged students per academic term was approximately $25.00. The identification of a separate student health fee was equally divided among the institutions. An analysis of the data showed that the smaller institutions were divided equally on the identification or nonidentification of a fee, whereas some of the larger institutions clearly identified this fee as a part of their required student fees. The reluctance of some of the larger institutions to identify this fee as a revenue source raises some concern. Could it be that the cost of care is a hidden factor, and students are not aware of this cost or the related charges for services rendered? It is possible that these institutions rely heavily on this source of funding to augment other health costs. Since these are crucial questions that cannot be answered by this study, further research is needed in this particular area.

Most colleges and universities are reimbursed through some form of third-party carriers. Third-party coverage provided by the carriers would augment the cost of health services, and in some cases cover in-patient care for students not covered by the mandatory fee. It is felt that some form of health insurance provides most of the students, faculty, and staff with a certain degree of health coverage. It was also found that a majority of the member institutions listed commercial insurance carriers as providing supplemental health insurance coverage for their student populations, whereas

the remaining institutions listed either Blue Cross/Blue Shield and/or a self-administered plan as their choice of carrier. However, most of the institutions listed more than one type of insurance, allowing for dual choice. This evidence supports the active involvement of the institutions with third-party payment as a mechanism to offset health cost and to ensure health protection for their student population as well as their faculty and staff.

Equally important to the health insurance plan for the college student population is the type of coverage, comprehensiveness of plan, and cost of premium. Although these factors should be critically assessed, usually college students are more concerned about the type of coverage than cost or comprehensiveness of coverage. This issue raises some concern, since cost containment is associated with quality of care and should be treated in that manner. The larger institutions appeared to offer more insurance benefits, whereas the smaller institutions offered less coverage and did not differ substantially from each other. In addition, the larger institutions spent more for coverage and covered a larger percentage of the population, which could account for the comprehensiveness of their benefit coverage since the risk can be spread more effectively over larger populations.

The data also revealed that the majority of the institutions had exclusionary clauses for certain services. In this case, the larger institutions reported a larger number of exclusions and cost-sharing practices compared to the smaller institutions.

On college campuses, the diversity of the student body generally influences the type of coverage offered to the population. Thus some colleges and universities include in their student health plans maternity care as an optional benefit, although a majority of the institutions offered no maternity care provision. Those universities that offered this option were among the larger institutions, which probably reflects their flexible health insurance program and the expenditure necessary to cover such a benefit. This particular coverage could become available in the near future in all institutions because of the demands of the feminist movement on college campuses.

There seems to be a relationship between premium cost and the difference in length of academic terms. It was found that the premium cost was averaged by term and not by weeks because of the difference in determining an academic term. The size of the institution did not influence the annual cost per student, although married students without children paid less per term at the larger institutions, whereas the annual premium for a married couple with children was not influenced by the size of the institution. Health insurance is becoming an acceptable mechanism used by higher education to defray the cost of health care for the university community.

Most colleges and universities organized and financed their health care for athletes through the regular health services program. However, some campuses did employ an independent team physician outside of the regular health program. Such an arrangement

can create problems if health services are not properly coordinated to provide continuity of care for nonathletic-connected conditions. Furthermore, the obtaining of health insurance for catastrophic injuries should emanate from the same insurance program as that of the nonathlete. These findings indicated a uniform pattern of coverage through an insurance program administered by the athletic departments of the member institutions. Athletic medicine still remains an expensive operation, and research is needed to determine the most efficient means of organizing and financing the program.

Although most universities indicated that the Health Maintenance Act of 1973 will not affect their operation, the development of a health maintenance organization should be given serious consideration by these institutions. This concept combines delivery of care with a pre-payment mechanism for a set of comprehensive services, mostly through group practice. This program can be marketed to faculty, students, staff, and others at a reasonable cost. It is felt that the exclusions, limitations, and co-payment features in the present insurance plans will be minimal in a health maintenance organization.

In addition, it is felt that emphasizing prevention, effective utilization, and a more efficient use of personnel can serve to contain cost. The concept of the health maintenance organization as a viable alternative for student health care was substantiated by Rowe, who stated that if the desire is to provide high-quality medical care at a reasonable cost, with service being the

primary goal, then those interested should be encouraged to proceed.[5]

## Eligibility for Service

Who should receive health services from college health care systems has continued to be an issue at colleges and universities. As the communiversity increases in diversity, so will the demand for health services by other population groups. Whether or not college health services choose to acknowledge this population group of faculty, staff, part-time students, student dependents, and others within their sphere of care is not the issue. They are or will be there, assisting in creating problems that affect the campus as a communiversity.

In most colleges and universities, criteria have been established to determine eligibility of care. Usually the eligibility factor is the number of credit hours registered per term.

The study showed that most institutions stated that fewer than six credit hours allowed a student to receive health services, whereas the remaining institutions required six to twelve credit hours. Some institutions reported that part-time students were eligible on a fee-for-service basis, which seems to be a common pattern among most colleges and universities. Faculty, staff, and others are usually charged on a fee-for-service basis.

In most cases, other members of the university community are not eligible for receiving health services, although some

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[5]Daniel Rowe, "The Yale Health Plan: A University Family HMO," Journal of Medical Education 48 (April 1973): 73-80.

colleges do make exceptions and allow nonstudents to receive services. This is an unusual pattern, but might set a trend for this population's eligibility for health service in the near future. Further analysis of these data showed that some institutions offered emergency services and workman's compensation, whereas those institutions with accredited hospitals reported that nonstudents were eligible for in-patient care. Although the pattern of the member institutions in this study does not appear to show a trend in this areas, the influence of this population group will be made known and attention will unquestionably be directed toward providing more health services in the near future.

# CHAPTER VI

# SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is concerned with the summary, conclusions, and recommendations for further research.

## Summary

This study was conducted at eleven midwestern universities. All of the universities, with the exception of one, are participating members of the Big Ten, formally called the Western Chicago Conference Association. This organization of institutions represents a regional approach to health care delivery in the Midwest that is similar to the community health care delivery system at large. Furthermore, each individual college program represents a similar pattern of college health programs throughout the country.

The purpose of this study was to determine the influence of a selected group of components on each individual member college health program. These components were: (1) administrative pattern, (2) scope of services, (3) staffing patterns, (4) finance mechanism, and (5) eligibility. The evaluation of the quality of these components and the effect that quality has on each individualized program was not the intent of this study.

It was assumed that before a systematic evaluation of quality, cost control, fiscal management, availability of services,

accessibility of services, and other factors could be empirically tested, an analysis of certain essential components of each individual health program had to be undertaken.

Data for the study were obtained from two sources: mailed questionnaires and interviews with health directors of the member institutions.

Since the data collected and used for this study were inclusive of all member institutions in the Midwest, a descriptive approach to statistical analysis and comparison was adopted. Therefore, data were presented in the form of frequencies and percentages.

Ideally, data and results of information yielded by this type of study will be used by college health directors; universities and college administrators; health planners of college and university health care; medical schools; hospital administrators; college health care auditors; college health care boards; college group health planners; HMO developers; third-party payment agencies; athletic departments; federal, state, and local health planners; and others interested in college and university health care delivery systems.

It is further suggested that data from this study provide ample information to be used to assess and measure current progress, development, and implementation of college and university health services. Current studies have provided sufficient information only on total college health program development and little information on implementation.

## Significance of Findings

The major findings of this study were as follows:

1. There was insufficient evidence to support a significant relationship between the administrative pattern of college health services and the effects of each pattern on the output of services. However, there was evidence to show that the majority of the institutions chose a uniform administrative pattern of independent operation within the total university health system.

2. No significant evidence indicated a strong influence of the medical schools and other health professional schools on the administrative operation of the individual colleges.

3. The evidence showed a strong board influence of students, medical directors, and faculty. Nonacademic community lay persons had no representation on most of the boards. It was not clear if students had voting power; usually this privilege lies within the purview of directors and staff.

4. Indirect administrative line authority from the director to the dean of students or vice-president for student affairs was the most prevalent administrative structure.

4. All of the member institutions utilized a physician as the chief executive director of their health programs. Only one institution indicated that its chief executive director was a health professional.

6. There was insufficient evidence to support a relationship between the size of the institution and the availability of services, but there was evidence of the influence of the population served;

that is, young adult college students required comprehensive care, preventative care, and health education care rather than episodic care. Most member institutions provided comprehensive care and preventative care, with less emphasis on health education.

7. A majority of the institutions did not require annual health examinations, but did require examinations of their athletes. In addition, some institutions required health examinations of their employees, reflecting the workman's compensation requirement of these institutions.

8. Students were the primary beneficiaries of health services by the member institutions. Although evidence showed that there was a low percentage of faculty, staff, and others receiving care, care was provided.

9. A majority of the institutions offered and organized health programs for their consumers. Although there was no particular person responsible for offering these services, in most cases physicians and nurses were responsible.

10. All of the studied institutions employed a psychiatrist, psychologist, social worker, and counselor in their mental health programs. The utilization of their professional personnel, particularly psychiatrists, could possibly indicate the influence of the medical schools in those institutions with such schools. However, evidence of this factor was not ascertained from this study. Almost without exception, mental health services were for students only.

11. All of the studied institutions offered total health care services for athletes.

12. Use of health care by some of these centers reflected the influence of some institutions with medical school curricula. Furthermore, the utilization of supplemental primary care facilities was shown in this study. All member institutions reported the use of community hospitals and university teaching hospitals for their medical services. In these centers, services of a highly specialized nature were carried out.

13. The majority of the member institutions had in-patient care facilities that were accredited. Because of the relationship of some institutions to the primary care facilities (community hospitals and teaching hospitals), their in-patient care was minimal.

14. There was a significant relationship between the bed capacity of the studied institutions and population size.

15. The utilization rate of the in-patient care facilities among the member institutions declined over a five-year period, but there were no empirical data to explain why this happened.

16. There was a significant relationship between the size of the population and the size of the health care staff. All member institutions staffed full-time and part-time personnel, but the larger institutions had a larger staff than did the smaller institutions. This factor appeared to be attributed to: (1) larger institutions having a larger budget to attract staff, (2) the medical school influence of these institutions with medical schools tending to attract staff, (3) the potential to carry on personal

research, (4) the appeal of medical health academic appointments in other departments, and (5) competitive salaries of the larger institutions. Although these factors were not evident, they could possibly have an effective influence on staffing the institutions.

17. Evidence showed the physician-patient relationship was operative. Physicians spent ten to thirty minutes of face-to-face contact with their patients.

18. All member institutions reported specialty areas staffed by specialists. The largest full-time/part-time staffing of specialists was in the family or general practice area. However, gynecologists represented the highest staffing in the part-time area.

19. Evidence showed that two major clinics of the member institutions (walk-in clinics and scheduled-appointment clinics) were staffed by physicians and nurses. However, the other clinics--emergency, gynecology, allergy-immunization, and dermatology--were less staffed but were operative.

20. Full-time registered nurses represented the largest health professional group, including physicians, in the health care delivery system of the member institutions. On the nursing level, licensed practical nurses and nurses aides were also represented as both full-time and part-time personnel. Other health professionals such as X-ray technicians, laboratory technicians, physical therapists, dental hygienists, dieticians, health education specialists, social workers, and health administrators represented a small percentage of the staffing pattern.

21. A majority of the member institutions had an approximate budget size of one to two million dollars. However, there appeared to be no relationship between the size of the institution and money allocation. It seems possible that the large institutions were underbudgeting their health costs, whereas the smaller institutions were overbudgeting.

22. The most prevalent source of funding was student fees and general funds. In addition, the approximate fee charged students per academic term was $25.00.

23. Most colleges and universities of the member institutions were reimbursed through third-party carriers. A majority of the institutions listed commercial insurance carriers, whereas the remaining institutions listed Blue Cross/Blue Shield and self-administered insurance.

24. The larger institutions offered more insurance benefits, and the smaller institutions offered less coverage. In addition, the larger institutions expended more for coverage and covered a larger percentage of the population.

25. Optional maternity care was not offered by a majority of the institutions. In addition, there was no relationship between premium cost and variance in length of academic terms.

26. Athletic medicine was financed by most of the member institutions.

27. None of the member institutions had a health maintenance program. Some indicated an interest in the program, but very

few utilized this service to augment their cost. No member institution used this program as a finance mechanism.

## Conclusions

The results of this study tend to show that health care centers of the Western Chicago Conference Association function basically like other centers throughout the country. However, because of their varied size, individually they function quite differently. In addition, this effect of population size determines the outcome of their product--comprehensive health care.

The findings further indicated that the influence of the medical schools of the Association is quite significant. This influence operates very subtly at those institutions without a teaching hospital, but those with a teaching hospital are constantly under this influence.

Equally evident was the independent administrative operation of the health care programs. The majority of the institutions indicated that they operated under a dean of students or vice-president for student affairs. All institutions reported that their chief executive director was a physician.

The representation of students, faculty, and medical directors on the governing boards suggests a new advocate relationship. If properly nurtured in the member institutions' program, this relationship can become a strong voice on the campus at the administrative level of governance.

The comprehensive offer of services, with the emphasis on preventative care, is well represented among the institutions. A

broad offering of these services is quite obvious in the larger institutions; however, offering these services only to students suggests a traditional pattern in college health care. The apparent need to offer these services to other population groups is imperative and would involve a new approach to comprehensive services for the total community. Budgeting for this group would become a vital planning process.

There is a dire need for the member institutions to provide more organized health programs, with emphasis on health education and preventative care. Requiring professional certification of persons to administer these programs would give the program academic status at the administrative level.

Among the studied colleges and universities, mental health services were available; however, they were for students only, with few exceptions. Because of the increase of stress and other mental disorders on the college campuses, the need to serve other campus groups in this area will increase; health programs must be ready to respond to this need.

The need for supplemental medical centers for the campus population will continue to increase. Therefore, the member institutions must encourage other centers such as family practice clinics, prepaid group clinics, and privately owned clinics to become active in providing medical services to the campus population.

The staffing patterns of the member institutions appear to be adequate for the delivery of quality health care of the member

institutions. However, allied personnel staffing represented a small percentage of the total staffing, and this cadre of health professionals represents a manpower pool that could be more adequately utilized by the institutions.

Health educators or administrators are providing unique administrative services to the health care delivery team. Persons in this category are not being hired and utilized to assist in the management of the studied college programs.

Equally important in the manpower area of this study was the lack of evidence of the use of family nurse practitioners and physician assistants. There persons are bringing to the health system at large unique services that could be used by college campuses.

The escalating cost of health care is paramount among the colleges' and universities' health systems. This study showed an approximate budget size of one to two million dollars, with the possibility of underbudgeting and overbudgeting. It is tremendously important to continue to analyze this important area of health care. However, the continued monetary support of health care by student fees and general funds was apparent in this study. Also, the active involvement of third-party payment assisted the member institutions in their budgeting for health care.

Most of the member institutions financed health care for their athletes through the regular health program. Usually, this program was administered through the athletic department.

The nonexistence of a health maintenance program on the member institutions' campuses was very apparent. Although all of the schools mentioned finance as a major concern, very few if any appeared to be considering this program as a financing method.

The college health programs of the member institutions and other institutions must begin to plan and orient their programs toward the health system at large. With the advent of national health insurance, college programs must change their present health care delivery system to accommodate the "new system."

## Recommendations for Further Study

The following suggestions are recommended for further research:

1. Further investigation should be conducted to assess the quality, efficiency, management, and fiscal planning of the member institutions' health programs. The evaluation approach to analyzing the select components of each individual health program of the member institutions in this study might have created a bias in attempting to interpret the results of the findings. However, that was not the intent of this study. Rather, the intent was to analyze these selected components individually and to assess their total influence on the entire health care delivery system of each institution. In addition, the analysis employed to determine the relationship of the administrative pattern to outcome of service might be expanded to include other variables, i.e., university administration, community resources, staff personnel, and other campus organizations.

2. Further attention should be given to measuring the effect of campus population size on quality and outcome of services.

3. Further attention should be given to the use of community resources, proper information, and referrals to other health care agencies.

4. The restructuring of the board function from advisory to policy making has great potential in health care administration management. Attention must be given to this vital area. Furthermore, the inclusion of community lay persons on the college health board is imperative.

5. The re-evaluation of health directors' jobs and the requirement that these directors have training in administration or professional degrees, e.g., Master of Public Health, merits attention.

6. Further attention should be given to health education and preventative education as a requirement of the member college health programs.

7. Investigation should be conducted to assess the impact of bringing other population groups into the college health care delivery system.

8. Further investigation should be conducted to do a "task analysis" of all staff of the member institutions' health programs. These data would provide a clearer assessment of the jobs and roles of different personnel workers. In addition, it would provide a manpower profile of each institution and would encourage the utilization of more health professionals and health allied personnel.

9. Further investigation is needed to assess the finance mechanism and the effect of third-party payment, health maintenance organizations, and other finance programs. Investigation of supplemental insurance and its influence on quality of care also merits attention.

# APPENDICES

# APPENDIX A

## LETTER OF TRANSMITTAL TO QUESTIONNAIRE EXAMINERS

# APPENDIX A

## LETTER OF TRANSMITTAL TO QUESTIONNAIRE EXAMINERS

June 30, 1975

Dear :

You have been chosen to engage in testing a questionnaire instrument that is to be utilized in obtaining data on university health services centers in the Western Chicago Conference Association. These data will be utilized in the development of my dissertation, titled: "A Study of Characteristics of College Health Services in the Western Chicago Conference Association.

The instrument is designed to assess the following objectives:

1. to determine the administrative organizational pattern of each W.C.C.A. student health component.
2. to describe the staffing patterns of each program.
3. to identify scope of services offered by each university health system.
4. to identify the financing mechanisms these services offered by each program.
5. to determine eligibility of the population served by each university health component.

In your testing procedure, please acknowledge the following:

1. Approximate time it takes to complete questionnaire.
2. Questionnaire format.
3. Clarity and specificity of questions.
3. Free-response of questions.
5. Sequence, or order of questions.
6. Question construction.
7. Adequacy of questions in relation to objectives.

Due to your busy schedule, I would appreciate it very much if you provide comments on the above. Please list all comments separately; if general comments are needed, please list.

Once you have completed the questionnaire and listed your comments, please contact me immediately at 3-7742 (office) or 5-3021 (residence). Or, if you wish to comment with me personally, I may be contacted at the above listings.

I really appreciate the time that you are taking out of your busy schedule to assist me. You will not go unrecognized in my research study, I assure you of this.

Appreciatively yours,

Donald E. Ensley, Ph.D.
Candidate in Adm. Higher Education

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# APPENDIX B

## LETTERS OF TRANSMITTAL TO WESTERN CHICAGO CONFERENCE ASSOCIATION'S HEALTH DIRECTORS

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## LETTERS OF TRANSMITTAL TO WESTERN CHICAGO CONFERENCE ASSOCIATION'S HEALTH DIRECTORS

June 30, 1975

Dear :

Mr. Don Ensley is conducting a study of selected characteristics of college health services of institutions within the Big Ten. This effort is fully sanctioned by the Health Care Authority, and as its Chairman and the Chief Executive Director I am requesting your cooperation and time to complete and return this questionnaire at your earliest convenience. I am also Mr. Ensley's dissertation director. The time given toward this effort will be appreciated, and I am sure that the information received from the study will be mutually beneficial in assessing our respective programs of health services for college students.

Sincerely,

Joseph Patterson, Dr. P.H.
Chairman and
Chief Executive Director

JP/jw

1543B Spartan Village
East Lansing, Michigan 48823

July 2, 1975

Dear :

I am conducting a study on university health services programs in the Big Ten. The study is under the auspices of the Health Care Authority and is sanctioned by the University, as indicated by the enclosed letters of Drs. Joseph Patterson and Paul Dressel. This project is concerned specifically with analyzing the selected characteristics of Big Ten universities' health programs. The results of this study will assist in providing primary data to be used for planning, accountability, budgetary/fiscal planning and evaluation. These areas were outlined during my appearance before you at the W.C.C.A. meeting.

The enclosed questionnaire has been pretested by a panel of experts, as well as the University's Office of Research, and has been modified to make it possible for you to record all necessary data while requiring a minimum amount of your time. The average time required for the panel pretesting the instrument was approximately 45 minutes.

I would be deeply appreciative if you would complete the questionnaire and return it by July 15, 1975, in the enclosed stamped envelope. I would welcome any comments you have concerning various aspects covered or not covered in the questionnaire and would be pleased to send you a summary of the data. If there are comments concerning the questionnaire, please contact me: Donald Ensley, (517) 353-7742 (collect). Thank you for your cooperation in carrying out this study.

Sincerely yours,

Donald Ensley

DE:bbs

Dear :

I am writing to you with regard to a research project or study conducted by Donald E. Ensley. He is studying university health services roles and functioning in the Big Ten universities. You may have been at the Ann Arbor meeting of health directors in which he discussed the project.

I simply want to assure you that he has discussed his project with me in great detail. MSU is interested in the study, and we believe that the results will be informative and useful to all of the universities. Accordingly, I hope that you will find it possible to cooperate fully with Mr. Ensley's request for information. I thank you for so doing.

You should be receiving the materials from Mr. Ensley within a few days of receipt of this letter.

Sincerely yours,

Paul L. Dressel
Assistant Provost for
Institutional Research

# APPENDIX C

# QUESTIONNAIRE INSTRUMENT

APPENDIX C

QUESTIONNAIRE INSTRUMENT

Instructions: The questionnaire is divided into seven sections: e.g., general information, organization/administrative patterns, etc. Each section is designed around the objectives of the study. In the section to the left of the "answer column," please place a check (✓) mark to indicate your response to the statements of the questionnaire. Some statements require a different response, but they are self-explanatory.

General Information

1. What is the enrollment of the student population directly served by your health program?

____ a. Less than 20,000
____ b. 20,000-30,000
____ c. 30,000-40,000
____ d. 40,000 or more

2. Approximately what percentage of your student enrollment is married?

____ a. Less than 10%
____ b. 10%-20%
____ c. 20%-30%
____ d. 30%-40%
____ e. 40%-50%
____ f. 50%-60%
____ g. 60%-70%
____ h. 70% or more

3. Approximately what percentage of your students live in residence halls or dormitories?

____ a. Less than 50%
____ b. 50%-60%
____ c. 60%-70%
____ d. 70%-80%
____ e. 80% or more

4. Approximately what percentage of your students are living in married housing facilities?

____ a. Less than 50%
____ b. 50%-60%
____ c. 60%-70%
____ d. 70%-80%
____ e. 80% or more

## Organization/Administrative Patterns

5. What is the organizational structure of your health program?

____ a. Separate unit
____ b. Student personnel services
____ c. Medical school
____ d. Other (please specify)_____
_____

6. Does your health program have a health council (or committee, or board)?

____ a. Yes
____ b. No

If yes to question 6, indicate the personnel who make up the council (or committee, or board).

____ a. Vice-President of Student Affairs
____ b. Nurse Representative
____ c. Dean(s) of Medical School(s)
____ d. Faculty Representative(s)
____ e. Student Representative(s)
____ f. Health Administration
____ g. Community Representative
____ h. Dean of Students
____ i. Medical Director
____ j. Other (please specify)_____
_____

7. What are the responsibilities of the health council (or committee, or board)?

____ a. Policy making
____ b. Advisory
____ c. Administrative
____ d. Other (please specify)_____
_____
_____

8. Does the health council (or committee, or board)

____ a. Hold regular staff meetings
____ b. Hold regular in-service education
____ c. Regularly attend outside meetings
____ d. Other (please specify)_____
_____
_____

9. How often are council meetings held?

____ a. Weekly
____ b. Monthly
____ c. Bi-monthly
____ d. Other (please specify)_____
_____

10. The chief executive officer of your health program is a:

____ a. Physician
____ b. Health Administrator
____ c. Dentist
____ d. Nurse
____ e. Other (please specify)_____
_____

11. Who is your chief executive officer administratively responsible to?

____ a. President
____ b. Dean of students
____ c. Health council
____ d. Provost
____ e. Other (please specify)_____
_____

12. What days is the clinic open for service? What hours?

| | |
|---|---|
| ____ Monday-Friday | From ___ to ___ |
| ____ Weekends | From ___ to ___ |
| ____ Holidays | From ___ to ___ |
| ____ Other (please specify) | From ___ to ___ |

_____
_____

13. What is the total number of full-time personnel?_____

14. What is the total number of part-time personnel?_____

15a. How many physicians do you employ?

a. Full-time M.D. ____
b. Full-time D.O. ____
c. Part-time M.D. ____
d. Part-time D.O. ____

15b. Please indicate the number in each specialty:

| | Full Time | Part Time |
|---|---|---|
| a. Family or general practice | | |
| b. Internal medicine | | |
| c. Gynecology | | |
| d. Pediatrics | | |
| e. Opthalmology | | |
| f. Other (please specify) | | |
| _____ | | |
| _____ | | |

16. Of the following personnel, how many are:

| | | |
|---|---|---|
| a. Dentists | | |
| b. Registered nurses | | |
| c. Licensed practical nurses | | |
| d. Nursing aides | | |
| e. X-ray technicians | | |
| f. Lab technologists/technicians | | |
| g. Physical therapists | | |
| h. Dental hugienists | | |
| i. Dieticians | | |
| j. Health education specialists | | |
| k. Social workers | | |
| l. Psychologists | | |
| m. Psychiatrists | | |
| n. Pharmacists | | |
| o. Health administrators | | |
| p. Optometrists | | |
| q. Other (please specify) | | |
| _____ | | |
| _____ | | |

17. Of the following clinical areas, indicate the number of staff personnel assigned:

| | Physician | Nurse | Other |
|---|---|---|---|
| a. Walk-in clinic | | | |
| b. Emergency | | | |
| c. GYN | | | |
| d. Allergy-immunization | | | |
| e. Dermatology | | | |
| f. Scheduled appointment | | | |
| g. Other (please specify) | | | |
| _____ | | | |
| _____ | | | |

18. Of your total staff, how many are associated with the following organizations:

____ a. APHA (American Public Health Association)
____ b. AMA (American Medical Association)
____ c. AOA (American Osteopathic Association)
____ d. NMA (National Medical Association)
____ e. NDA (National Dental Association)
____ f. ANA (American Nurses Association)
____ g. ACHA (American College Health Association)
____ h. Other (please specify)_____
_____

19. Do all of your physicians, as a result of university policy, hold academic rank(s) or appointment(s)?

____ a. Yes
____ b. No

20. Are these ranks or appointments held in academic units?

____ a. Yes
____ b. No

If no, where are these ranks or appointments held?_____
_____

## Scope of Services

21. Which of the following services are included in your health program?

____ a. Speech and hearing services
____ b. Ophthalmologic services
____ c. Surgery
____ d. GYN or family planning
____ e. Physicians' services
____ f. Skilled nursing care
____ g. Mental health
____ h. Emergency
____ i. Laboratory
____ j. X-ray
____ k. Immunizations
____ l. Pharmacy
____ m. In-patient care
____ n. Physical therapy
____ o. Dental care
____ p. Social service
____ q. Health education
____ r. Dietary counseling
____ s. Other (please specify)_____
_____
_____

22. Are all the services that are listed above covered by student fees?

____ a. Yes
____ b. No  If no, please attach fee schedule(s).

23. Are health examinations required of the following groups?

____ a. All students annually
____ b. New students only
____ c. New faculty and staff
____ d. Athletes
____ e. Other (please specify)_____
_____

24. Do you provide health care for the following groups?

| Yes | No | | |
|---|---|---|---|
| ____ | ____ | a. | Student dependent(s) |
| ____ | ____ | b. | Faculty |
| ____ | ____ | c. | Staff |
| ____ | ____ | d. | Other (please specify)_____ |
| | | | _____ |

25. Do you have an organized health education program for your consumers?

____ a. Yes
____ b. No

If yes to question 25, please include any information that describes your program._____
_____
_____

26. What professional personnel are primarily responsible for administering the health education program?

____ a. Physician
____ b. Nurse
____ c. Health education specialist
____ d. Social worker
____ e. Other (please specify)_____
_____
_____

27a. Does your program offer mental health services?

____ a. Yes
____ b. No

27b. If yes to question 27a, who performs these services?

____ a. Psychologist
____ b. Psychiatrist
____ c. Social worker
____ d. Counselor
____ e. Other (please specify)_____
_____

28. Does your mental health program provide services for:

____ a. Students only
____ b. Faculty
____ c. Staff
____ d. Dependents of students, faculty and staff
____ e. Other (please specify)_____
_____

29. Does your health program provide medical care for athletes?

____ a. Yes
____ b. No

30. How many prescriptions were filled by your pharmacy during the academic year 1974-75?_____

31. What other facilities are utilized for the provision of health services?

____ a. Community hospitals
____ b. University teaching hospital
____ c. Ambulatory center
____ d. Other (please specify)_____
_____

32. Approximately what is the operating budget per year for your health program?

____ a. Less than $500,000
____ b. $500,000-$1,000,000
____ c. $1,000,000-$2,000,000
____ d. $2,000,000-$3,000,000
____ e. $3,000,000 or more

33. Does your institution have an identifiable student health fee?

____ a. Yes
____ b. No

If yes to question 33, indicate the fee per:

| | Fee |
|---|---|
| ____ a. Semester | _____ |
| ____ b. Quarter | _____ |
| ____ c. Other (please specify) _____ | _____ |
| | _____ |

34. Approximately what percentage of your funding is derived from the following sources?

____% a. Revenue
____% b. Student fees
____% c. Third-party payers
____% d. General funds
____% e. Other (please specify)_____
_____

35. What type of supplemental health insurance is available for students?

____ a. Commercial insurance
____ b. Blue Cross/Blue Shield
____ c. Self-administered or self-insured
____ d. HMO (Health Maintenance Organization)
____ e. Other (please specify)_____
_____

36. What is the premium per term for insurance?

| | Quarter | Semester | Other (Specify) |
|---|---|---|---|
| a. Student only | _____ | _____ | _____ |
| b. Student and spouse | _____ | _____ | _____ |
| c. Student, spouse & children | _____ | _____ | _____ |
| d. Student and children | _____ | _____ | _____ |
| e. Other (please specify) | _____ | _____ | _____ |

37. Please check those benefits which are offered by your student health insurance plan:

____ a. In-patient care
____ b. Out-patient care
____ c. Surgical expenses
____ d. Abortion
____ e. Dental
____ f. Ambulance service
____ g. Emergency treatment
____ h. Psychiatric care
____ i. Counseling
____ j. Diagnostic x-ray and laboratory
____ k. Drugs
____ l. Other (please specify)_____
_____
_____

38. Does your student insurance plan provide optional maternity benefits?

____ a. Yes
____ b. No

If yes, what are the limitations, if any:_____
_____
_____

39. Does your insurance program include any of the following conditions?

| | | Comment |
|---|---|---|
| ____ | a. Co-insurance | _____ |
| ____ | b. Deductibles | _____ |
| ____ | c. Exclusions | _____ |
| ____ | d. Other (please specify) | _____ |
| | _____ | _____ |
| | _____ | _____ |
| | _____ | _____ |

40. Do you have a policy on the following?

| Yes | No | | Comment |
|---|---|---|---|
| ___ | ___ | a. Discounts | _____ |
| ___ | ___ | b. Rebates | _____ |
| ___ | ___ | c. No charges | _____ |
| ___ | ___ | d. Courtesy visits | _____ |

41. How is athletic medicine financed?

____ a. Commercial insurance
____ b. Self-insured
____ c. Student health budget
____ d. Other (please specify)_____
_____
_____

42. Approximately what is the cost of athletic medicine annually?

_____

43. Approximately what is the number of patient visits per year for the following service areas?

Visits/Yr.

____ a. Dental
____ b. By appointment
____ c. Walk-in clinic
____ d. Emergency room
____ e. Mental health clinic
____ f. Family planning
____ g. Gynecological clinic
____ h. Physical therapy
____ i. Immunization and allergy clinic
____ j. In-patient
____ k. Other (please specify)_____
_____

44. Approximately how many patient contacts do your physicians have per day?

____ a. Face-to-face contacts
____ b. Telephone contacts
____ c. Other (please specify)_____
_____
_____

45. What is the average length of time for each face-to-face contact?

____ a. Less than 5 minutes
____ b. 10-20 minutes
____ c. 20-30 minutes
____ d. 30 minutes or more

46. Do you maintain an in-patient care facility?

____ a. Yes
____ b. No

If yes, is it accredited by the Joint Commission on Hospital Accreditation?

____ a. Yes
____ b. No

47. What is the total bed capacity of your in-patient care facility?

____ a. Less than 25
____ b. 25-50
____ c. 50-75
____ d. 75-100
____ e. 100 or more

48. Approximately what is the total number of in-patient days for the past five years?

____ a. '74-'75
____ b. '73-'74
____ c. '72-'73
____ d. '71-'72
____ e. '70-'71

## Eligibility

49. What are the number of credit hours a student must carry in order to receive health services?

____ a. Less than 6
____ b. 6-12
____ c. 12 or more
____ d. Other (please specify)_____
_____
_____

50. Are faculty, staff, and other nonstudents eligible for health services?

____ a. Yes
____ b. No

If no, do you provide care for the following?

____ a. Student dependents
____ b. Faculty
____ c. Staff
____ d. Other (please specify)_____
_____
_____

51. Who is eligible for mental health services?

____ a. Students only
____ b. Faculty
____ c. Staff
____ d. Student dependents
____ e. Other (please specify)_____
_____
_____

## General Comments

52. What do you perceive as the major problem(s) in your university health care system?

53. What has been the impact of the Health Maintenance Organization Act of 1973 upon your health program?

54. Please include any other pertinent information that you feel would add to the significance of the study.

_____
(Name of University)

_____
(Name of Person Reporting)
(Optional)

_____
(Rank of Person Reporting)

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