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AN ANALYSIS OF HEALTH CARE TEAMS:
SERVICES TO PATIENTS WITH SELECTED
CHRONIC DISEASE PROCESSES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Connie Louise Greene, B.S., M.S.

* * * * * *

The Ohio State University
1975

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Forward

My motivation for writing a dissertation about health care teams began fifteen years ago. Being then a recent graduate of a basic nursing education program, I knew only of my functions as a nurse in relation to patients and physicians. Upon assuming my first staff nurse position, I was assigned to a nursing unit composed of persons with Diabetes Mellitus. It was in this position that I saw a necessity to understand the organization of health services. Because of the chronic status of Diabetes Mellitus it was apparent that these persons had to learn how to manage their own diabetic therapy. The health professional's approach to the task of teaching diabetic management involved the following division of labor: the nurse taught insulin administration and clinitest testing, the dietitian taught calculation of the therapeutic diet, and the physician and his nurse (employed by him) taught anatomy, physiology and the whys and hows of therapeutic management. Family members were brought into the teaching plan only when they would be involved in meal preparation for the person with Diabetes.

This approach apparently worked well for most clients, because we did not see them again as in-patients. However.
it was not long before we noticed that a few persons were being re-admitted to the hospital with physiological manifestations of their non-compliance to the therapeutic regimen. Upon re-evaluation of our teaching, we often found that the person's understanding of the therapeutic regimen, was more than adequate.

The observation that education did not necessarily facilitate patient compliance to their prescribed programs led to the frustration of several of the health professionals. Tensions grew between the re-admitted patients and the health professionals. One day, as the nurses were ventilating their frustrations, a social worker happened to come into the chart room and encouraged us to express our frustrations. The social worker helped us to recognize that the social work perspective could help both the professionals and the re-hospitalized family member.

The social worker's assessment of the "problem patient" and his family helped the other professionals understand the need to consider the interactions within the family unit, the economic status of the family and the previous life style of the hospitalized family member as an inherent requirement in the process of preparing a care plan. Thus I learned two important factors. First, I became aware of the need to consider the family unit as well as the "patient" as the client. Then, I also saw that the various professional disciplines had complimentary
resources and information which, when integrated, could provide better health services to the health care client (i.e., the patient and his/her family).

Later in my nursing career, as I was finishing study for my Master's degree, my concept of client care was further enhanced when I had the opportunity to work with persons with neurological dysfunctions. In this setting the health care approach had to be extended to include agencies outside the hospital (e.g., Vocational Rehabilitation, Social Security, Crippled Children's Services, Welfare, and Public Health Nursing Services). The in-hospital services could not: 1) provide money for clients' living expenses, 2) re-train for jobs, 3) provide for job placement, and 4) offer nursing services for home-care patients.

Thus the need for an interorganizational and health care team approach to care for persons requiring more than episodic medical care was professionally apparent when I entered The Ohio State University to obtain my Ph.D. in Sociology. My subsequent experience with sociological perspectives provided me the necessary theoretical and methodological orientations to systematically investigate the organization of health services.

As I was finishing my formal sociology course work, my advisor Dr. Saad Z. Nagi was instrumental in my decision to seek an outside minor in Public Administration. It was during
my course of study in Public Administration that I became acquainted with Dr. Richard A. Rettig, the principal investigator for a National Science Foundation grant titled: "Public Policy and Kidney Therapy." Soon thereafter I joined his research project.

I joined Dr. Rettig's research project for three main reasons. First the piece of legislation which this National Science Foundation grant addresses (P.L. 92-603) is seen as a prototype for future federal legislation in health care especially national health insurance. Similarly, the organizations of health services resulting from this legislation could be seen as a prototype for persons with other chronic illness. (This prototype is relevant because almost 30 percent of the total United States population is over 45 years of age, thus at a high risk for various chronic diseases. Finally, the guidelines for this legislation (now published as proposed regulations) are explicit in requiring an interdisciplinary approach to patient care.**

*By the year 2000, if our fertility rate drops to least 2.1 there will be more than 30 percent of the United States population over 45 years of age. (Population Estimates and Projections, November 1971.)

**The federal grants and contracts which proceeded this legislation also required some form of health care team approach. (See Richard Rettig /forthcoming/ for an elaboration of the evolution of a National Commitment to persons with end-stage renal disease.)
This study will be directed primarily at determining the inter-organizational and health care team approaches in one community (i.e., Columbus, Ohio) toward meeting the hemodialysis provisions of the 1972 Social Security Amendments (p.l. 92-603). In addition, it will be an extension of the conceptual framework for the renal disease analysis to another chronic disease system, post myocardial infarction. It is believed that this study and its attending literature review will demonstrate the inadequacies of applying the germ theory model of medical care (i.e., diagnose, treat, cure) to persons with chronic disease processes, and will provide policy makers insights into organizational as well as financial factors involved in the delivery of effective health services.
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"A Survey of Nursing Needs and Resources in Eastern Indiana," Department of Nursing, Ball State University, Cannell, Mary; Greene, Connie; and Hakes, Richard, 1969.
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Chapter I - Research Problems

Background

There was a gap in performance between the development of scientific technology related to helping with end-stage kidney disease and the eventual application of that technology to those very patients. For example, the Burton Report (1967; p. 39) estimated that 58,788 persons died of kidney related disease in 1964.* In the period between July 1964 to June 1965, kidney diseases accounted for approximately 140,000,000 total days of restricted activity; 63,500,000 days of bed disability; 17,000,000 work loss days; with a prevalence of about 7,800,000 cases (Burton Report, 1967, p. 39). In contrast to these statistics, which reflect only a part of the human, social and economic losses in that same year (1964) only about 100 patients were undergoing renal therapy in the form of dialysis. This therapy was being provided in only 25 centers in the total United States. As late as April 1, 1971, the National Dialysis

*Burton (1967) apparently accepts 1960 as the year for the development of the scientific techniques for helping people with end-stage renal disease. Assuming that 1960 is the year of development of the scientific technology, then 1964 can be considered as the fourth year after the development of the scientific technology.
Registry of the National Institute of Arthritis and Metabolic Diseases (NIAMD) reported that 322 active dialysis centers were treating only 3,989 patients. (Belinsky-Morris, 1971)

Social concern over this performance gap grew during the decade of the 1960's. The first reflection of this concern came in the form of the 1961 Community Health Services and Facilities Act (P.L. 87-395). This act provided the statutory authority for a grant for the Seattle, Washington Artificial Kidney Program. Then in 1964 the Senate Appropriations Committee used P.L. 87-395 as a basis for providing authority to the Public Health Service to "provide funds for artificial kidney programs."

The grants made for dialysis under this authority reinforced the perception of a gap in performance between the clinical capabilities and the application of those capabilities to persons with end-stage renal disease. The reinforced perception of a gap in performance then resulted in the development of the Kidney Disease Control Program of the Division of the Chronic Diseases of the Department of Health Education and Welfare (HEW). This program received its first appropriations as part of the HEW budget for late 1967. The monies in this branch were utilized in Public Health Service contracts to agencies interested in establishing small treatment units to demonstrate chronic hemodialysis as an effective and efficient means of treatment.
for chronic renal disease. One of several purposes of these contracts was to investigate the feasibility of chronic dialysis in the home and to generate and collect basic medical and financial information regarding the hemodialysis operation.

Late in 1967 the Gottschalk Report was presented to the Bureau of the Budget by an expert committee on chronic kidney disease. Recommendations of the Gottschalk Report included: 1) the launching of a national program intended to provide renal transplantation and dialysis therapy for those medically suitable patients for whom such care was not then available; 2) the provision of federal financial assistance to develop resources (including manpower training), and to help defray treatment expenses; and 3) the recognition that the decision to initiate such a program must represent a commitment to its continuation in future years.

From the time the Gottschalk Report was presented in 1967, five years elapsed before a bill dealing with issues surrounding the treatment of end-stage renal disease, H.R. 1, was signed into law as P.L. 92-603, the Social Security Amendments of 1972 on October 30, 1972. Section 2291 of that bill addressed chronic renal disease.
In summary, Section 299I provided that effective July 1, 1973, fully or currently insured workers under Social Security and their dependents with chronic renal disease would be deemed disabled for purposes of benefit coverage under parts A and B of Medicare, subject to the deductible premium, and co-payment provisions of Title XVIII (Medicare). Coverage would begin with the third month after a course of renal dialysis is initiated. Institutional care would be covered only in institutions which met a minimum utilization rate requirement and which provided for a medical review board to screen the appropriateness of patients for proposed treatment procedures (P.L. 92-603).

Both the Public Health Service contracts and H.R. 1 have implicitly or explicitly encouraged health care team approaches to clients in agencies receiving their federal monies (i.e., other health professionals besides physicians would be involved in clinical decision making regarding the client).

The above presentation is a very brief history* of a medical-scientific innovation and the governmental action in attempting to make this innovation available to the members of

*For an elaboration of the history of the national commitment to persons with end-stage renal disease see Rettig (1975--forthcoming).
the public who would most benefit from it. Thus, H.R. l's significance is in the national commitment to provide health insurance benefits to persons with a categorical disease which is considered catastrophic in both a social and economic sense.

H.R. l and its attending guidelines can be seen as prototypical in two respects: 1) The legislation of Congress as it moves closer to the implementation of the philosophy that health services are a human right. H.R. l is a prototype for proposed National Health Insurance. 2) The organization of health services resulting from this legislation for other clients with chronic disease, since these guidelines implicitly or explicitly require a health care team approach to persons with chronic renal disease. Since H.R. l and its attending guidelines can be seen as prototypical in these two respects it was decided that this study would have four research goals which follow:

Research Goals

1. To study the impact of H.R. l on health care services.

It was decided to do an intensive study of the response of one community—Columbus, Ohio—to clients undergoing hemodialysis. It is believed that by studying the health care system's approach to these clients within the context of one community will permit control of gross economics, geographic, social and political variables. The study of one community will limit the
generalizability of these findings. However, it is believed that the value of this study lies in its being a model for similar studies in other communities.

Members of our research project were already aware of the location of the hemodialysis facilities in Columbus, Ohio. They were located in three different hospitals and in one free-standing proprietary unit.

A research decision was made to set up a "natural field experiment" with H.R. 1 as the independent variable. Two chronic health care systems would be studied; hemodialysis and post myocardial infarction. The post myocardial infarction system would act as a "control group" since no legislation has occurred which directly affects the organization of health services in this system. This "natural field experiment" would be similar to Campbell and Stanley's (1963) true experimental design, with the exceptions that the groups were not randomly selected and that a ex post facto analysis had to be done for the pre-legislation data. Campbell and Stanley 1963:70-71 argue that the validity of such an ex post facto analysis hinges upon the comparability of the "experimental" and "control" groups. It is believed that hemodialysis and post myocardial systems are comparable because there are many parallels between patients and medical response to
patients with end-stage renal disease and post myocardial infarction patients (particularly cardiac patients located in the therapeutic classifications of Classes B, C, and D*).

First, therapeutic approaches to patients of both disease processes require more than medicine and in-patient care:

- Patients may not be able to return to the same occupation or work load.
- The diagnosis and the therapy often result in anxiety and/or depression. (Hans Selye's 1956 general adaptive syndrome.)
- When patients are moved from intensive therapy areas to less intensive care areas they often need therapeutic assistance in this transfer.
- The patients' families need to be involved as a part of the therapeutic team. (There can be variation among the goals established by the patient, his family and the therapeutic community. /Rothchild: 1970/)

- Teaching, professional counseling and possible retraining and different job placement may be needed for both. In other words, patients with either of the two discussed disease processes will benefit most from a health team-patient-family approach.

Second the medical etiology for both disease processes are similar:

- Hypertensive vascular disease and diabetes mellitus are an inherent part of the risk matrix for both disease processes.
- Streptococcal infections can result in nephritis or pylonephritis or rheumatic heart disease.

Third, both medical areas have been major areas of focus for medical-scientific innovations in the past decade:

- Both areas have been involved in transplantation and machine support systems.
- Heart surgeons are doing coronary artery bypasses and left-ventricular repairs.
- Due to technological changes, both areas have had to train manpower to operate and monitor new equipment, and to learn new technological skills in patient evaluation and medical intervention.

Fourth, there are voluntary agencies associated with both (e.g., Kidney Foundation, National Kidney Fund, American Heart Association and local coronary clubs).

Fifth, both areas of medical care have been active areas for legislation: there is a Federal legislation for end-stage renal patients as already mentioned; and there have been several
states legislating in the area of clarifying and certifying functions of paramedical personnel on mobile units and the functions of nursing personnel in coronary care units.

Sixth, the economic and social costs have a great impact on the nation's population:

- The statistics for end-stage renal disease patients have already been presented (p. 1).
- Heart attack is the nation's number-one killer. In 1971, it claimed 675,580 lives. An estimated 3,870,000 Americans have a history of heart attack and/or angina pectoris. Heart and blood vessel diseases cost the nation an estimated $19.7 billion annually. In addition to lost income and expenditures for medical care, 52,000,000 man-days of production are lost each year.*

There are also some differences in consequences and therapeutic approaches to patients with these two disease processes. First, the major difference appears to be that the patient undergoing maintenance hemodialysis is dependent upon a man-machine system for his life, whereas the post-myocardial infarction patient's life is not directly dependent

upon his cardiac monitor. The monitor does nothing physiologically to the patient and is utilized only for a matter of days following a myocardial infarction. There are other cardiac patients who have to have permanent mechanical pacemakers implanted in their heart. This man-machine system is one that patients can carry with them without being dependent upon someone else having to assist them with their "machine." In contrast, the patient on maintenance hemodialysis must utilize the kidney machine two to three times weekly for the rest of his life, or until he can undergo a successful kidney transplant.

Second, another difference between patients with these two chronic maintenance therapies is their interaction with health care organizations. Generally speaking the patient following a myocardial infarction can have his medical follow-ups performed in a physician's office; however, the renal patient may either be continuously interacting with a health care organization or a physician, depending upon whether he is involved in a home care or an out-patient dialysis program.

In sum then, the structure of the medical therapy may have a different impact on patients with the two different diagnoses. However, it is believed that a reasonable comparison of the health care team approach can be made between these patients requiring chronic maintenance therapy (e.g., patients with
end-stage renal disease and patients disabled as a result of myocardial infarction).

Figure 1 demonstrates how a natural field experimental design could facilitate the extension of both systems. The data can be collected retrospectively for cell I and to the extent that the two health care systems can be compared, support of these retrospective findings can be obtained through data collected for the pre-legislation of the cardiac system (cell III). Additionally, it might be possible to extend the findings in cell II to that of cell IV (post-legislation).

This "natural experiment" may appear quite naive at first glance. However, it would seem justified as an overall orientation in that controls are present in two places. 1) Within each of the hospitals studied and 2) in the environment of the organizations studied (i.e., the gross social, economic, geographic and political variables).*

2. **To determine informal as well as formal intra and inter-organizational behavior as it relates to health services for two selected patient groups.**

Experimental studies of informal behavior of health care organizations have generally been tied to one organization

*Variables other than H.R. 1 will also be considered. This will be discussed in methodology chapter (Chapter II).
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**Figure 1**

Natural Field Experimental Design
(Beloff) or to one or two segments within an organization


There are several structural-comparative studies of hospitals.*

It has been as recent as 1961 when Levine and White published
their article (Levine & White: 1961) that structural sociologists
have started directing their research attention to inter-organiza-
tional behavior. (Aiken and Hage 1968; Turk 1970; Etzioni, 1975)

This study will be an attempt to combine both the informal
and formal (structural) perspectives of inter-organizational
health care behavior to selected clients within one mid-western
community. By combining both perspectives the data should
permit a more comprehensive empirical treatment than either of
the perspectives when used to the exclusion of the other.

Both perspectives will also be utilized in the analysis of
intra-organizational health care behavior. The intra-organiza-
tional behavior overlaps with the next research goal:

3. To describe actual behavior of health care teams in a

medical-surgical setting.

"Health team" concept was apparently introduced during the
early 1960's at Yale by Dr. J. Beloff and Dr. R. Weinerman

*For a recent summary see "References for Neuhauser and
Andersen in Georgopoulos 1972, pp. 108-113."
(Cowen 1972: 166). They emphasized that: "Contemporary patterns of disease and disability call for primary emphasis to be given to health maintenance measures; the focus must be on the family as the basic service unit; and that growing complexity of medical resources requires the integrated function of the health team." (Beloff-Weinerman 1967: 383) Effective family health care and health maintenance implies a unified, personalized and continuous care system. This concept of health care teams has been discussed since the mid-1960's. However, the empirical work relating to a system's approach (i.e., health care team) seems confined to the work of Beloff (1967; 1968; 1968; 1972); De-Nour and Czaczkes (1968); Beckhard (1974); Rubin (1974) and Alpert (1968).

Alpert's (1968) study and De-Nour and Czaczkes (1968) are the only studies that were not done in a community health care clinic setting. The De-Nour and Czaczkes study was the only study found which considered the clients who were located in a medical-surgical hospital setting. Their article noted that there have been many studies of health care professional attitudes toward psychiatric patients, and reactions to moribund patients, "but that surprising little has been written on the reactions of medical teams to non-psychiatric, and non-moribund patients." (1968: 988)
It is thus proposed that this study's descriptions of health care teams in action in four different organizations will make a valuable contribution to the empirical literature on health care teams. This will be a general contribution to the literature as well as a specific contribution in its consideration of the adult medical-surgical patient whose medical intervention permits an extended life.

4. To describe the consequences of the organization of health services to patients and their families.

As early as 1945, Richardson (1945) himself a medical doctor, demonstrated graphically in his book that inter-action among persons who are patients and their families does have an impact upon the medical care outcomes. Richardson's work using case studies was probably a forerunner to a number of studies which clearly indicate that evaluation of disability based upon medical impairment alone is inadequate (Sokolow: 1959; 1962; Nagi: 1969; Haber: 1967; Burke: 1967; Ruesch: 1968). There may be an interrelationship of pathological conditions with demographic, social, psychological or environmental conditions. Factors such as age, sex, education vocational skills, work experience, attitudes and family setting may affect the individual's ability to deal with functional impairment. (Haber: 1973)
This study will describe the health care network that the clients move through and the consequences of this movement or lack of movement. It is believed that these findings will relate to Nagi's (1974) descriptions of the gate-keeping decisions in service organizations.
Chapter II- Methodology

Conceptual Frameworks

As presented in Chapter I the overlying orientation for this study was that of a natural field experiment. This involved H.R. I being considered as an independent variable with the end-stage renal disease care being the experimental "group" and the post-myocardial infarction care being the control "group".

Within this overall orientation two major conceptual frameworks will be used: 1) Rosengren and Lefton's (1966; 1967; 1968; 1970) typology of organizational orientation to clients and 2) a concatenated, or pattern theory.

Rosengren and Lefton's theoretical framework involves the idea that organizations may activate an interest in two different biographical dimensions of the life-space of the persons they serve. They offer descriptive definitions of these two organization's interest in the client's contemporary "life space"; and "Longitudinal" which refers to the organization's concern in the future biographical career of clients. Further, Rosengren and Lefton break each of these dimensions into "plus" and "minus" components. "Plus laterality" expresses the extent to which an
organization takes the 'whole' person into account in its efforts to effect social, psychological or physical changes. "Minus laterality" is a restricted focus on specific features of clients (Lefton 1970: 19-20). "Plus longitudinally" involves the organization expressing an obligation to provide or arrange services to patients on a long-term basis, perhaps even after patients are dismissed from that organization. "Minus longitudinally" is one in which organizational engagement with the patient is terminated once the patient is dismissed from that organization (Rosengren 1968: 2). Since Rosengren and Lefton have argued that organizations of health can vary along both the lateral and longitudinal axes, a four-fold table of logical categories emerges. (See Figure 2)

For example, Rosengren (1968) places the following health care organizations in these cells: Cell I would contain acute, general hospitals; Cell II would contain tuberculosis hospitals and/or Public Health Departments; Cell III would contain short-term therapeutic psychiatric hospitals and Cell IV would contain long-term therapeutic hospitals.

Rosengren and Lefton's typology does not consider the probability of different client orientations varying within organizations. There is evidence that orientations to clients can vary within the same organization (Coser 1963; Blau 1960; Friedson 1970).
### Figure 2

Rosengren and Lefton's Typology
It would seem entirely possible that organizations orientations toward clients may vary with the type client they are processing. Heydebrand (1973) indicates that the task complexity of a general hospital (i.e., a multi-purpose hospital) may be much greater than a psychiatric, or single purpose hospital. Thus, within a general hospital it is quite probable that various client orientations exist.

For purposes of the present study, Rosengren and Lefton's typology will be modified to conceptualize orientations of health care teams both within as well as between organizations. In addition, Rosengren and Lefton's variables will be operationalized as inherent activities of the health care team.

Plus Laterality 1) involvement with comprehensive care* as well as medical care of the client; 2) interdisciplinary referrals within the health care team among the medical staff, nursing, dietary, physical therapy, occupational therapy, chaplaincy and/or social work personnel; and 3) formal/informal coordinating mechanisms within the team.

*This will be defined as specified by Cherkasky and Oppenheim (1958: 47-51). Comprehensive or total care must: (1) "bring to the patient the best available scientific medical treatment that the illness demands; (2) take into account that the patient is a social being where relationships to his family and society may be severely disrupted by his illness; and (3) meet the multiple needs of the patients by providing several health workers functioning as a team."
Plus Longitudinality 1) continuity of interaction with the client; 2) health team referrals to other agencies (i.e., inter-agency referrals); and 3) formal/informal coordinating mechanisms with other agencies.

This operationalization provides the opportunity to observe the interactions of the health team (e.g., physicians, nurses, social workers, technicians, vocational rehabilitation counselors, chaplains, occupational and physical therapists) with the patient, among themselves, and within and between organizations. This interaction will involve health team members either performing their services for the client concurrently or sequentially.

Therefore, as a consequence of the present operationalization of Rosengren and Lefton's framework, descriptions can be offered as to how "lateral" and "longitudinal" health services are provided to clients.

Rosengren and Lefton's typology as modified to include intra-organizational (lateral) behavior will permit a comparison of the health care team approach to the patient undergoing hemodialysis with its approach to the patient who has had a myocardial infarction. Additionally, the present operationalization of the Rosengren and Lefton framework will permit an observation of the inter-organizational (longitudinal) behavior of the health care organizations within these two patient systems.
By modifying Rosengren and Lefton's framework to include variations in intra-organizational behavior and by using a new operationalization of their variables, this study will result in descriptions of patient and information flow among health disciplines and among organizations.

The second major conceptual framework will be that of a concatenated theory* with Rosengren and Lefton's lateral and longitudinal orientations (i.e., health services) being the dependent variable. See Figure 3 for a representation of the independent variables that are, or potentially are imposing upon the degree of health services provided (the dependent variable). The independent variables of this study were selected during the processes of working in the health field and of studying health related research literature. This exploratory study is designed to relate major variables that were selected by an eclectic process which transpired through years of work and study.

Most of these independent variables seem self-evident in their operationalization; however, they were operationalized as follows:

*Kaplan (1974: 298) explains that a concatenated theory "is one whose component laws enter into a network of relations so as to constitute an identifiable configuration or pattern. Most typically, they converge on some central point, each specifying one of the factors which plays a part in the phenomenon which the theory is to explain." Its component laws are not presented as deductions from a small set of basic principles.
Figure 3

Diagram of a Concatenated Theory
1. Other organizations -- any of the organizations involved directly or indirectly in health services to the selected client population (certain aspects of this variable could be said to be controlled since this study took place in one mid-western community).

2. H. R. 1 -- This could be assumed to have a specific organizational impact; however the proposed federal regulations for its total implementation were not released until July 1, 1975. Data was collected prior to July 1, 1975, therefore, variations in its implementation could be expected. The variations in implementation relate more to organization of health services than to the reimbursement processes.

3. The internal structure -- Relates to two things: (a) whether nursing services are centralized or decentralized; and (b) how much the health care team's norms as described by Rubin and Beckhard (1974: 321) are found to be operating (e.g., 1) "In making a decision silence means consent;" 2) "Doctors are more important than other team members;" 3) "Conflict is dangerous, both task conflicts and interpersonal disagreements;" 4) "Positive feelings, praise, support are not to be shared;" 'we're all professionals here to do a job;' and 5) "The precision and exactness demanded by our task negate
the opportunity to be flexible with respect to our own internal group processes...

4. Client characteristics -- The interrelationship of the impairment with demographic, social, psychological or environmental conditions (Haber: 1973).

5. Inservice education -- Any education program geared to professional (as opposed to technological) nursing components. Joint programs among the health care disciplines.

6. Joint Commission on Accreditation of Hospitals (J.C.A.H.). Do the hospitals have J.C.A.H.'s accreditation?

7. Professionalization of the organization -- This was measured through three indicators: (a) the professional memberships and activities of health team members; (b) interdisciplinary membership on standing committees; (Aiken and Hage 1968) and (c) health team memberships and activities which crossed organizational boundaries.

8. Incentives -- This contains several indicators too: (a) reimbursement by third party payment; (b) J.C.A.H. guidelines; (c) Professional Standards Review Organization (P.S.R.O.) requirements; (d) employees evaluation tools; and (e) verbal reinforcement by superiors.

In summary, the initial plan of the research design was to use the Rosengren and Lefton's framework combined with a
concatenated theory within the overall framework of a natural field experiment. This design was planned to yield a descriptive study of one mid-western community's response to the health care needs of clients located within two chronic disease categories. This initial research design, however, was revised during the process of collecting the data. This decision for a revision of the initial design will be discussed in this chapter, following the Data Collection section.

**Data Collection**

An underlying assumption of this study is: the hospital is the first organization with which the clients come into contact. Thus, it was necessary to obtain entry into the hospitals and the proprietary dialysis unit in order to gain access to those professionals providing dialysis and coronary services for patients.

For purposes of this study the organizations providing dialysis and coronary care therapy will not be identified by name, but only by the letters A, B, C, and D. Organizations will be described in this way to avoid revealing absolute identification of the organization. Anonymity to the organizations was involved as a part of the contractual agreement for the study to be conducted.
The organizations were contacted initially by telephone. When the telephone operator for the general organizational system answered, a request was made to talk with the administrator's office. The administrative secretary was told of the general purposes of conducting a research study in the organization and that the researcher would like an appointment with the administrator to discuss the proposed research and to provide: 1) a general overview of the total National Science Foundation project (Appendix A) and 2) a letter of introduction to the researcher from the principal investigator for the National Foundation Science Grant (Appendix B).

Once contact was established with the administrator, the time for approval of the proposed study varied from a few days to over three weeks. For example, one administrator set up a meeting with an ad-hoc committee in which the discussed plans for the proposed study resulted in immediate approval. In another organization a meeting was held with two administrative representatives who then took the question of approval for the proposed research to several internal organizational committees. Thus, entry time to the organizations varied with the degree of complexity of the organization's internal decision making process.

After an entry had been established into the organizations, it then was necessary to locate the various health professionals
involved in the care of the clients with the two selected chronic diseases. This process also varied within organizations as well as between organizations. For example, one organization assigned a nurse clinical-specialist to facilitate the researcher's movement through the organization. Often this nurse would accompany the researcher to the organizations various departments and perform a personal introduction. In other situations, both within the organization with the clinical specialist facilitation and in other organizations, the researcher made individual contacts with the health professionals.

Even though there were variations in the procedure for locating health professionals to perform informant functions, a general procedure was used. The general procedure for locating informants involved four components: 1) locating the work areas where the two selected client populations were given care; 2) using the organization's list of their committees and the memberships of these committees; 3) using previous informants; and 4) questioning persons within the organization regarding interactions with other health professionals.

Once the potential informants were located an appointment for the researcher's interview was scheduled with them, at their convenience. (See Appendix C for a summary report of interviews.)
The interviews were conducted in a non-structured way following the general patterns used by Dexter (1970). After the interviews, an agreement was made with the health professional for additional questions that might be required following interviews with other health professionals. The goal of the interview was to determine the answers to five questions:

1. Where do the clients come from? (i.e., The primary physicians in what counties refer patients to your organization? What agency might be referring clients to your organization? How are the patients processed through your organization?)

2. What type of interaction occurs between your organization and the primary referring agent? (i.e., Who assumes the major responsibility for the client's care plan and is the plan of care provided to the referring agent?)

3. Does the health care team have a formal organization? (i.e., Who are the health professionals involved with the client and what kind of interaction* do you have with them? Do you meet together?)

*"Interaction" is not being used in any esoteric sense, such as the way it is used in the sociological theories of symbolic interaction. Instead the Webster's dictionary definition of "interaction" is used: "mutual or reciprocal action or influence." If informants asked about its meaning, it was explained as "Who, or with what health professionals do you discuss patient care within your organization?"
4. What are the interorganization relationships (i.e., As a rule where do you refer clients? Do you maintain contact with the client after referral? Do you interact with personnel in other organizations? If interaction with personnel from other organizations did occur, elaboration of this interaction was requested.)

5. What is the extent of professionalization within the organization? (i.e., What professional memberships do you have? Are you a member of any committees inside your organization? Are you a member of any committee or organization outside this organization?)

After each informant was asked these questions, the persons representing other health disciplines or other organizations who were mentioned as interaction partners, were contacted and interviewed in the same fashion. This process of interviewing the persons mentioned as interaction partners provided an opportunity to evaluate perceptual differences in the interaction patterns.

The interview procedures provided the following data:
1) informal inter-organizational behavior; 2) health care team behavior and 3) formal coordinating mechanisms within the health care team approach. The data on informal inter-organizational behavior was supplemented by questions to a representative
of the hospital administration for a list of formal contracts or agreements with other organizations. Thus, data was collected for both the formal and informal behavior of intra and inter-organizational behavior.

Methodology Reconsidered

The combined conceptual approach (the natural field experiment overlying Rosengren and Lefton's framework and the concatenated theory) worked well for collecting data; but due to the use of intensive interviews as a method of collecting data, it became apparent that the eight variables of the concatenated theory were not as independent as previously assumed. For example: professionalization of the organization as measured by: the health team members' professional membership and activities; interdisciplinary memberships on standing committees; and health team memberships and activities which crossed organizational boundaries was considered an independent variable. There was one organization that would have scored very high on this variable due to the professional memberships of the nurse members of the team. However, during the interview process it was discovered that the high percentage of nurse memberships in the professional organization was related to recent labor negotiations. (Labor negotiations by the professional
organization require at least 80 percent of the nursing staff belong to that professional organization.)

Thus the richness of this study's data facilitates a recognition that the research designs previously conceived independent variables were not independent. Due to the central focus of this study to look at the inter-organizational and health care team organization, with a major emphasis upon the H.R. 1 legislation, all the eight variables of the concatenated theory will not be discussed. However, in the final chapter of this study a new sociological model will be presented, incorporating the variables and their perceived interactions.
Chapter III- Pre-H.R. 1 Organizational Behavior

This chapter will be a general summary of both the intra and inter-organizational pre-legislative behavior of Columbus, Ohio's dialysis care system due to the fact that specific details could not be established by the post-facto or retrospective methodology. In addition, specific details for pre-legislative dialysis care systems behavior could not be established from the pre-legislative cardiac component of this study's natural field experimental design.

Of the organizations presently involved in dialysis care, only two of the organizations were operating dialysis units immediately prior to H.R. 1's implementation. Organization A, a large teaching hospital (over 800 beds) which is religiously affiliated had four dialysis stations and Organization C, a large teaching hospital (over 900 beds) which is state operated had eight dialysis stations. There had apparently been one other organization involved in dialysis therapy prior to 1973, that organization stopped providing dialysis therapy three years before the implementation of H.R. 1. Therefore, there were twelve dialysis stations available in Columbus, Ohio at the time of the implementation of H.R. 1. These twelve stations were
running only eight hours a day. In addition, the dialysis units were not running seven days a week. Organization C's dialysis unit was open five days a week and Organization A's dialysis unit was open six days a week. Thus, with this number of dialysis stations, running these hours and days the maximum number of dialysis performed per week would be 128. If both Organization A and C's dialysis units were to have run six days a week and two shifts a maximum of 144 dialysis treatments could have been provided in Columbus, Ohio prior to the implementation of H.R. 1. This capacity is insufficient considering the potential incidence of 50-60* persons per million with end-stage renal disease in a community** this size.

* Estimates of end-stage renal disease incidence varies between 50 to 60 persons per million population. (Burton 1967; National Kidney Foundation estimates 1973.)

**"Community" becomes problematic as to where its geographical or political boundaries lie. The present or potential researcher would like to draw parameters of the "community" in the proximal geographical area surrounding the service facilities; however, the renal medical facilities in Columbus, Ohio serve a population based in 27 counties plus people in West Virginia, Pennsylvania and Kentucky. If the researcher would draw the "community" boundaries to correspond with those of Region II as outlined by the Ohio Regional Medical Program the population serviced by Columbus, Ohio renal facilities would total over two million (Hilling: 1974), thus the potential renal patients in this population could number between 100 and 120. (This would require a maximum of 300-350 dialysis treatments per week if the patients' medical therapy necessitated dialysis as often as three times a week.)
The overload dialysis units responded to their overloads in different ways: 1) they diminished dialysis time for each treatment. 2) The units worked toward training patients and their families for home dialysis. Once a family was trained for home dialysis an in-patient kidney machine was available for another person with end-stage renal disease; and 3) the frequency of dialysis treatment was three treatments within a two week period in Organization A; whereas after the family was doing dialysis treatments at home, the therapy was prescribed for five treatments within a two week period.

The Kidney Foundation of Central Ohio prior to H.R. 1 had difficulty justifying its central focus on research and professional education functions. The community and the end-stage renal disease victims expected direct patient services, particularly monies to finance medical therapy. The Kidney Foundation responded to these demands by establishing a drug bank and acting as a distribution loan center for artificial kidney machines which had been received as donations. The Kidney Foundation's drug bank provided a number of prescriptions (See Appendix D) at cost to persons with renal disease. They also had acquired three artificial kidneys in the Kidney Loan Klosset which was provided on loan (no charge) to persons on home dialysis. Ultimately, the Kidney Foundation acquired
seventeen artificial kidneys for their Kidney Loan Kloset.

The Kidney Foundation's behavior, in responding with direct services can probably be attributed to what Zeckhauser (1973) calls identifiable lives. Identifiable lives are those individuals who need expensive medical therapy and "pull at our heart strings and get newspaper coverage for days until financial needs are met." (Zeckhauser, 1973: 165) The identifiable lives are different from statistical lives (e.g., highway fatalities) in that we blame ourselves for failing them.

Service agencies that were actively involved in the pre-H.R. 1 dialysis care system included the Bureau of Vocational Rehabilitation (BVR)* and the Bureau of Crippled Children's Services. Both these service agencies provided economic resources for the end-stage renal disease person's medical program. BVR reportedly had 98 end-stage renal disease clients between the years of 1962 and 1973 (Moy: 1975). The Bureau of Crippled Children's Services (BCCS) was also involved in providing economic resources for children with end-stage renal disease. BCCS would provide economic resources for actual

*In 1970 the BVR had a federal grant to demonstrate the feasibility of BVR taking end-stage renal disease clients through treatment, rehabilitation services and return them to a productive life.
costs of medical treatment for "children" up to the age of 21 years of age. Therefore, in some incidences these "adults" between the ages of 18 and 21 years were receiving services from both BVR and BCCS. It is unknown how many "adults" were provided services by both agencies.

Another factor observed in Columbus, Ohio's pre-legislative dialysis care system was found in the form of the patients' private health insurance coverage. Most of patient coverage by these primary payers was for an accumulation of 120 days per year of in-patient coverage. As the dialysis patients became medically stabilized, it became required, by a measure of proper bed utilization, for the hospital to encourage in-center dialysis on an out-patient basis. Apparently the hospitals and the private insurance carriers negotiated to have dialysis patients treated as out-patients, but for the treatments to be billed as in-patient services. This relieved some of the families and hospital's economic expenditures, but if one would consider the necessity of three dialysis treatments per week, the 120 days of coverage would accumulate in 40 weeks, thereby leaving patients' families with the bills for the remaining 12 weeks of treatments for any one year. Hoffstein (1974) has figured that prior to the H.R. 1 legislation that the national averages for in-hospital dialysis treatments were from $224
to $256 per treatment (Hoffstein's 1971 data). Therefore, considering a cost of $250 per dialysis treatment, and that there would be 36 additional treatments needed past the private health insurance coverage, the patient's family would have received a $9,000 yearly hospital bill for dialysis treatments if BVR or BCCS would not pick up these costs.

It is possible that many end-stage renal disease families did not receive financial assistance through BVR or BCCS prior to H.R. 1 because of the agency's client selection criteria. As already noted, age was a major criterion in the BCCS, so if a patient was not under 21 years of age BCCS would not provide any services. BVR had other criteria besides the person being an end-stage renal disease victim involved in their client selection process. Other criteria that was used in the BVR's client selection process included the family's financial assets, the rehabilitation potential of the patient and the requirement for the patient to be waiting for a kidney transplant or that the patient had already received a kidney transplant. It was therefore possible that some families were not accepted as clients for either BVR or BCCS.

Often then, prior to H.R. 1 it took little time for an end-stage renal disease family to exhaust any surplus finances, to need medical therapy no longer covered by their private health
insurance and to have had their usual monetary income stopped due to the illness of the family breadwinner. Concurrently the families were receiving medical bills which they could not by any means pay and hospitals increasingly were having to write off losses. Consequently, there were three structural incentives operating which encouraged home dialysis (i.e., the least cost therapy*): 1) Patients and families were motivated toward home dialysis because of their increasing medical bills, which could considerably taper off after they began providing their own dialysis. 2) Hospitals were acquiring economic losses; and 3) In-hospital dialysis units were overflowing their patient capacity.

There is only one pre-H.R. 1 finding to report on the health care team or intra-organizational behavior. The social workers or Organization C reported that prior to the implementation of H.R. 1 they were more actively involved in the care program of the end-stage renal disease patient than they are now involved. The social workers attributed this difference to the need for finding financial resources to pay for the therapy patients needed.

*Prior to H.R. 1 in-hospital dialysis cost was $224-256 per treatment or $35-40,000 per year. Home dialysis cost per year was $4-6,000 (1971 data of Hoffstein).
Social workers provide the clients with an information pipeline to such agencies as the Bureau of Vocational Rehabilitation, Bureau of Crippled Children's Services, and facilitated the clients processing through Social Security offices for disability insurance. Additionally, social workers helped activate and provide information resources to community fund drives for specific patients. Concurrent with these activities, they worked with individual family members and their respective families and mobilized the family's internal resources and strengths, and facilitated family problem solving in the midst of a perceived family crises.

In conclusion, prior to the H.R. 1 legislation, BVR was the agency providing major funding for adult end-stage renal disease patients; BCSS was the agency providing major funding for children with end-stage renal disease; social workers were actively involved in the dialysis health care team approach for Organization C; and there were three structural
incentives toward home care dialysis, which several authorities in the medical community believe facilitate the patient to "do better."* (i.e., Curtis et al 1965; Blagg et al 1973)

*Patients "do better" on home dialysis because they have been taught so well they feel more independence and self-sufficiency and can be flexible with their dialysis schedules. Their life goals are broader in scope than just drifting through life to the next dialysis treatment.

The assumption that patients do better with home dialysis is controversial, but it appears that there are several variables involved in whether "patients do better" at home. (i.e., age of patient and patient helper; marital stability prior and during dialysis; and the presence or absence of professional supports in family problem solving. / Blagg et al 1973/)
Chapter IV- Post H.R. 1 Intra-Organizational (lateral) Findings Between Dialysis and Coronary Care Systems

Each organizational finding will be reviewed separately within the natural experimental and the modified Rosengren and Lefton framework to describe comparisons and contrasts of lateral behavior within a single organization. The dialysis care system's health care team behavior will be compared and contrasted with the coronary care system's health care team behavior within each hospital. The proprietary dialysis unit's health care team behavior will be discussed in comparison with the other dialysis units.

This chapter's final discussion will point to the experimental control of the major structural variables that Heydebrand (1973) offered as explanations for organizational behavior and will relate variations in lateral (health care team) behavior of each care system among all three hospitals studied in Columbus, Ohio.
The lateral component of Rosengren and Lefton's framework is operationalized to include comprehensive patient care*, inter-disciplinary professional involvement with the patient and his family and coordinating mechanisms for the inter-disciplinary professional approach. The intent of this chapter is to identify the health professionals involved in the dialysis and coronary care systems in each organization; the interaction among these health professionals; and presence of any information coordinating mechanisms among the health professionals.

Professionals involved in health care services were identified by locating the work areas where the dialysis and coronary care populations were given care and then proceeding with interviewing the head nurses of each patient care area. The head nurses were asked during the course of the interview

*This study defines this term as specified by Cherkasky and Oppenheim (1958: 47-51). Comprehensive or total care must: (1) "bring to the patient the best available scientific medical treatment that the illness demands; (2) take into account that the patient is a social being where relationships to his family and society may be severely disrupted by his illness; and (3) meet the multiple needs of the patients by providing several health workers functioning as a team."
about their verbal and written interaction* or formal meetings with the other health professionals involved in the patient care setting. The interactions were "quantified", by further questions regarding the regularity or frequency of the reported verbal relationships with each health professional. The head nurse's reported verbal interactions were then validated by similar interviews with their reported health professional interaction partners. A similar interview procedure was conducted with each health professional that the head nurse's interaction partner mentioned as being involved in patient care. This interview process continued until all the health professionals involved in direct patient care were interviewed and their interviews validated by their interaction partner.

The head nurses were also questioned about other health professionals that worked directly with the selected patient population at any time during the patient's hospitalization. For example, if the patient had been admitted through the hospital's emergency room, the emergency room personnel were

*"Interaction" is not being used in any esoteric sense, such as the way it is used in the sociological theories of symbolic interaction. Instead the Webster's dictionary definition of "interaction" is used: "mutual or reciprocal action or influence." If informants asked about its meaning it was explained as "Who, or with what health professionals do you discuss patient care within your organization?"
also interviewed about the care administered and the processing of patient information to the patient care unit where the patient was ultimately admitted to the hospital. Validation of this information was achieved by re-interviewing the head nurse of the admitting unit.

The interviews of all the health professionals, their reported interaction partners and those health professionals who were reported to have been involved in direct patient care also included collecting data on the information content of the health professional interactions.

The interview question about the presence of a formally acting health care team was handled by asking each health care professional (informant) about dialysis or coronary care unit meetings which involved the participation of more than one professional discipline. If such meetings did exist, frequency of meetings and discussion content of these meetings was also obtained during the interview procedure.

The descriptions of health care team behaviors that follow, are therefore reconstructions of what the health professional informants related to the interviewer. The researcher, in addition, has constructed a total picture of each health care team's members interaction. Presentation of findings will follow the general format of first briefly presenting each
organization, then each of the care systems within the organizations with: pictorial representations of each health care team's behavior, followed by a description of the contributions of each health professional to the functioning of the health care team.

**Organization A**

Organization A, is a large (over 800 bed) teaching hospital which is religiously affiliated.* Its dialysis unit contains four dialysis stations.

**Dialysis Care System**

The various health professionals that were frequently involved with direct patient services to the dialysis unit included: nephrologist, nurse, dietitian, and financial consultant. On infrequent occasions a member of the clergy or a member of the social service department was consulted by the nursing staff or made rounds in the dialysis unit. Also on infrequent occasions the patient might be sent to the outpatient department for a shunt revision.**

*Organizations will be described this brief way to avoid revealing absolute identification of the organization being described. This was part of the contractual agreement with the organizations.

**A shunt is a surgically prepared unexposed vascular connection between an artery and a vein which permits repeated and ready access to the blood stream. Access to the patients' blood stream is required with each hemodialysis treatment.
Figure 4 is a diagram representing the interaction among members of the health care team. Each health care member's contribution to the team will be discussed. All health care professionals interact with the patient, however the patient does not take an active role in deciding his program of care, therefore the patient is not included in the diagram. It is apparent from the diagram that the nurse is functioning as an information conduit among the health professionals and between the nephrologist and the other health professionals. (There is more than one nurse in the dialysis unit, however the head nurse takes leadership and coordinates activities of other nurses. Their activities are highly coordinated because they work simultaneously on one shift and involve themselves in group decision making.)

The nurses and one nephrologist usually have weekly meetings to discuss medical technology and patient care problems. None of the other health professionals is invited to or attends these meetings. If any coordination occurs among the health professionals, it is directed by the nurse.

One nephrologist of this dialysis unit, with the assistance of the nursing personnel, has prepared a patient teaching manual. This teaching manual not only describes physiological changes, but tells the patient what, if anything, he can do
Figure 4

Dialysis team members' interaction in Organization A
about those changes. It also encourages the patient to take responsibility for his own care. Each patient receives a copy of this manual and during the process of his dialysis program, he is encouraged to refer back to particular sections of it.

The nurses and physicians in this setting have long been aware of the problem that they are not prepared educationally to offer certain client services (e.g., the patient who does not want to live a man-machine type of life, the marital strains that occur with spouse role reversal). They have tried to obtain a psychiatrist or a psychologist to assist these patients, but these professionals have rejected working with such clients. (This professional rejection might relate to the fact that Medicare will pay only $314.00 for a psychiatric consultant, as one organization reported.)

The physician-nurse teams also have requested the social worker's assistance with the client's social-psychological problems. The social service department in Organization A, however, sees its only role as that of facilitating the payment of hospital and medical bills. Since the Medicare coverage was extended to persons with end-stage renal disease, the social service department has been even less involved with these clients.
The dietitian member of this professional group works with the patient and the family so they understand the prescribed diet and fluid restrictions. The nurse and dietitian regularly discuss the adequacy of the dialysis patient's dietary management. The dietitian will continue to work for patient and family understanding while the patient is being cared for in Organization A or has been transferred to the free-standing dialysis center (Organization D).

The last member of Organization A's health care team to be considered is the financial consultant. This person is a representative of the hospital's accounting department and will advise clients on how to process their Medicare forms. The financial consultant and the nurse discuss this one-time procedure for each patient. This person apparently does not facilitate the clients' obtaining any other financial assistance other than Medicare because this financial consultant could not answer questions regarding other financial assistance available for patients.

Organization A's dialysis unit professionals have their services to the patient informally coordinated through the head nurse. However, their services fall short of what is considered comprehensive care as defined in this study. (see page 43).
Coronary Care System

Organization A's coronary intensive care unit has twelve cardiac monitors. Its convalescent coronary unit has four cardiac telemetry units.

Major professional actors providing direct patient services to the post-myocardial patient are the physician and the nurse. Figure 5 is a pictorial representation of the health professionals' interaction. This Figure portrays a rather complex system of interaction. Nurses' group 1 and group 2 have established a division of labor based upon the symptoms of the patient. If a patient is old; more chronic; has a continuous cardiac arrhythmia or a cardiac pacemaker he is transferred to the post-coronary care unit with the group 2 nurses., where there are four cardiac telemetry units. Otherwise the person with an acute myocardial infarction is progressed through various rehabilitation stages by the group 1 nurses on the first cardiac unit.

The nurses in group 1 have prepared a three page patient teaching guide which consists of: general orientation to the unit; anatomy and physiology of the heart; possible complications following myocardial infarction; and a three week progressive ambulation program. Group 2 nurses also use these guidelines. There is an attempt made to have one nurse follow the patient through hospitalization (much as in primary care
Coronary team members' interaction in Organization A
nursing*). This attempt at a longitudinal perspective of care is problematic due to nurses' days off and nursing shift rotation. The teaching guide does not facilitate another nurse's understanding of what teaching has been done, so there is the need for each nurse to constantly re-assess patients' understanding of their condition and their therapeutic program before doing any teaching. Compounding these limitations of teaching is the fact that the physicians do not share their future plans for patients' activity programs, so the nurses are unaware of the medical goals which may ultimately require the patient to change occupations or have a major revision in lifestyle.

The physicians and both groups of nurses meet every week for medically centered discussions (e.g., arrhythmias, medications and drug side-effects). Occasionally these conferences become patient centered, but again only along medically therapeutic lines. These meetings do not include discussions of comprehensive or total patient care.

The emergency room nurses communicate with the nurses in group 1 whenever a patient is treated in emergency room and

*For a detailed explanation of primary care nursing see: Manthey 1970.
then transferred to their nursing unit. This communication
takes the form of a telephone call prior to transfer; a
written form of procedures performed in emergency room; or a
verbal exchange between the nurse attending the transfer and
the nurse on the receiving unit. The emergency room nurses
ultimately find out about the medical status of patients
through the resident physicians and the Training and Education
Coordinator. The emergency room nurses are interested in
following the physiological status of patients to determine
the effects of their treatment procedures.

Nurses in group 1 and group 2 also interact with the
Discharge Planning Coordinator. The Discharge Planning
Coordinator plans patient care rounds on each of these units
once a month with either the head nurse or a representative of
the head nurse. The purpose of these rounds is to stimulate
patient care planning for the post-hospitalization period.
This once a month arrangement is too infrequent because
some patients could have been admitted and discharged before
the next set of rounds occurred.

The major coordinating mechanism for patient care appears
to be the nursing care plans which have recently started to be
more effective in communicating patient care goals. These
care plans are available at all times and are transferred to the
other coronary nursing unit if the patient is transferred. When a patient begins to show behavior which does not comply with this medically defined program, there are ad hoc nursing meetings to discuss and to evaluate therapeutic approaches.

Coordination between the group 1 and group 2 nurses occurs through the efforts of the Training and Education Coordinator and the head nurses of the respective nursing care units.

The social service department is again minimally involved. As was the case in the dialysis care system, it only becomes involved with clients who have financial problems or with what is called "disposition cases". "Disposition cases" are those patients who are old and have no family to care for them at home. Social service gets involved in helping the family find a nursing home in which to place the patient member of the family. The social worker generally does not relate patient and family assessment to the nurses; but writes a note on the patient's chart for the physician. Consequently there is no dialogue between the social worker and the nurses. The social service department representative for these nursing units may or may not be the same individual from time to time. This rotation of personnel could contribute to a lack of continuity in patient care planning.
The dietary department has one dietitian assigned to these nursing units. The dietitian instructs the patient and his/her family until the dietitian believes that they understand the therapeutic diet. (There is no formal teaching evaluation tool used.) The instructional process is not shared with any of the other health professionals, so evaluation or reinforcement of learning is done by the dietary professional exclusively.

Members of the chaplaincy service make rounds on these units and will counsel patients and families who make their spiritual needs explicit during patient rounds. This procedure appears to be done on an ad hoc basis and the clergy and other health professionals rarely discuss their therapeutic plans even when the clergy has been involved in counseling with the dying.

It is medically documented that several of the coronary patients have Diabetes Mellitus or are discovered to have it when their laboratory studies are done. These diabetic patients and their families are involved in "diabetic teaching". This teaching is done by a Diabetic Teaching Coordinator, who makes rounds on the medical-surgical units and asks the nursing staff about "new" diabetic admissions. The coordinator then assesses the patient's understanding of the prescribed diabetic therapy and teaches or re-teaches needed information. The Diabetic Teaching Coordinator and the dietitian are the only health
professionals that work with this aspect of patient care and as far as could be determined these two health professionals do not share their therapeutic programs; so evaluation or reinforcement of learning is done exclusively by each of them.

Thus in Organization A there are various health professionals involved in the care of the post-myocardial infarction patient with an apparent central focus on medical therapy. The comprehensive care component is minimally apparent or emergent and what coordinating mechanisms are found are operating in an ad hoc fashion.

Organization B

Organization B is a large (over 500 bed) teaching hospital which is religiously affiliated. Its dialysis unit contains four dialysis stations.

Dialysis Care System

Major actors in this system include the nephrologist, nurses, social worker and the financial consultant. Figure 6 is a pictorial representation of their interaction. All health professionals interact with the patient. It is apparent from this diagram that the nurse is again functioning as an information conduit in this organization. (There is more than one nurse in the dialysis unit, however, the head nurse takes the
Figure 6

Dialysis team members' interaction in Organization B
leadership of the other nurses. These nurses do work more than one shift but they rotate so that there is a continuity of information flow.)

This nursing staff has been aware of the patients' psycho-social problems and have tried in vain to obtain psychiatric or psychological consultants for the clients. They have, however solicited the assistance of an outside mental health consultant to help them work through their problem solving by handling their own feelings in this emotionally charged setting. These nurses have cited several examples of unmet psycho-social needs of their patients: 1) "We have a guy going for a transplant (kidney) and he is very dependent upon his machine and us." 2) "If we get busy with another patient, we can predict (the occurrence) of symptoms of another patient who was 'frustrated' because we weren't paying him any attention." 3) "We have a couple of patient's who are very, very moody." and 4) "Only a couple of families are actively interested. Most of the families we never see -- they won't even come in and look at it (dialysis)."

The nurses in Organization B teach the patients about the action and side-effects of the drugs they are receiving. They also reinforce the dietary teaching of the dietitian.

There are no interdisciplinary meetings involving the physician nurses or any other health professional in Organization B.
The social worker who is assigned to this unit (no rotation of social work staff) takes an active part in helping the clients process their claims through Medicare. This processing is a continuous process, it does not stop with the initial filing of forms. The social worker has also been involved with counseling staff concerning patients' psycho-social problems.

It is interesting, that the financial consultant was unaware of the social worker's activity with the Medicare process. The financial consultant has actively communicated with the Medicare intermediary to determine this organization's general operational procedure and operational procedure for specific clients. Additionally this person established a parking program for persons on dialysis so they would not have to walk so far to their car after dialysis. (Most persons are very weak immediately after dialysis.)

The dietitian is also assigned to this unit (no rotation of dietary staff). The dietitian does diet teaching and has the patient prepare sample menus to demonstrate their understanding. This person is requested for consultation if the patient's weight gain and electrolyte pictures demonstrate non-compliance to the therapeutic diet.

The Unit Director is a nurse responsible for both the dialysis and the coronary care systems. This nurse takes an active role
in helping nurse personnel with problem solving directed at patient care. The Unit Director also conducts weekly meetings with the head nurses of the dialysis unit, the intensive care unit and the coronary care units. These meetings are generally geared toward discussions of management and administrative problems and concepts and principles of management.

The dialysis care system of Organization B is then informally coordinated by the head nurse. In addition, the delivery of services still falls short of comprehensive care in that the psychological-social and spiritual needs of the patients are apparently being inadequately met.

**Coronary Care System**

Organization B's coronary intensive care unit has twelve cardiac monitors. Its convalescent coronary care unit has four cardiac telemetry units.

This organization, too has two patient care areas servicing the post-myocardial infarction patient. Figure 7 diagrams the interaction between these patient care areas and among the health professionals.

Group 1 nurses are found in a work setting entirely devoted to acute physiological needs of patients. These nurses will do some
Figure 7

Coronary team members' interaction in Organization B
patient teaching (i.e., orient patients to equipment; answer patient questions; and reinforce the cardiologist's explanations).

After the patients are transferred to the patient care area with the group 2 nurses, they are involved in a progressive exercise program. This progressive exercise is advanced as long as the patient does not demonstrate any untoward effects (i.e., chest pain). The exercise program continues after hospitalization under the cardiologist's direction. The nurses, however are unaware of the patients exercise program that exists post-hospitalization.

The dietitian member of Organization B's coronary care system does not get involved in teaching therapeutic diets to the coronary population. The only diets taught are those for weight loss and for Diabetes Mellitus because the cardiologist in this care system does not believe any other therapeutic diets are needed. When the dietitian does teach the diets for weight loss or for diabetes, she has the patients prepare sample menus. This procedure will permit an evaluation of the patients and their families understanding of their diet. The dietitian will reinforce learning and will re-instruct patients during the evaluation procedure. In addition, she will share the status of the patients learning process with the nursing staff.

Members of the chaplaincy service make daily patient rounds on this unit and will counsel or pray with patients who desire this service.
In addition to these personal interactions with patients, the following health professionals hold weekly meetings: the nurses in group 2, the social workers assigned to this case area, a representative from chaplaincy services, the dietitian assigned to this case area, and the Discharge Planning Coordinator. These weekly meetings are primarily directed at determining post-hospitalization problems for the patient population on this nursing care unit. If potential client problems are identified, the Discharge Planning Coordinator, the head nurse and the social worker usually work together in dyads after each has individually assessed the patient and his family to determine a therapeutic approach. After a decision is made for a therapeutic approach, the head nurse and/or Discharge Planning Coordinator approach the physician with their plan. It appears that the merits of this discharge planning procedure have been demonstrated in the past, and usually the physician facilitates the implementation of the therapeutic plan.

Members of both nurses groups meet weekly with the Unit Director and work on developing patient teaching information (e.g., actions of medications, what to watch for in the way of drug side-effects, a brief description of symptoms of complications post-myocardial infarction, and when to call the physician).
These patient teaching tools ultimately will be distributed and explained to clients before patient dismissal.

Patient teaching by the group 2 nurses also includes the use of a film "I'm Joe's Heart". Patients and their families attend this film. The film is followed by a nurse lead discussion about the film.

When coronary patients are also discovered to have Diabetes Mellitus, the nurses in group 2 teach these patients the non-dietary portion of the patients therapeutic program. The diabetic teaching is not as formalized (there is no set plan) as is the teaching of the therapeutic coronary program.

There also is a weekly meeting of the physicians and representatives of the two nursing groups. These meetings are primarily geared toward learning new medical technology.

Patient care coordination is achieved through: written patient care cards; verbal interaction between the nurses in group 1 and group 2; and verbal interaction among the nurses in group 2, the social workers, dietitian, Discharge Planning Coordinator and the representative from chaplaincy which takes place during the weekly discharge planning conferences. An indirect type of patient coordination is achieved through the efforts of the Unit Director bringing the two nurse groups together for discussion of general approaches to client care. These are
ad hoc informal arrangements for coordination, however and it appears that these arrangements are becoming somewhat formalized as this segment of the organization has less professional turnover.

Organization C

Organization C is a large (over 900 beds) teaching hospital which is state operated. It has eight dialysis stations.

Dialysis Care System

Figure 8 denotes the major actors in the dialysis care system for this organization: the nephrologist, renal residents, nurses, dietitian and administrator of renal disease special services. All of these personnel interact with the dialysis patients.

The nurses in this organization function less as an informational conduit to the other health professionals than they do in the other dialysis care systems. This can be attributed, in part, to the dietitian attending medical rounds.

The nurses in this unit are not under the administrative responsibility of nursing service but are under the employ of the nephrologist. The nephrologist and the head nurse do their own professional hiring and inservice education. The nurses and physicians meet weekly to discuss "patient problems" and "personnel tensions". Apparently "personnel
Nephrologist

Dietition

Social Worker

Office of Renal Disease Special Services

Renal Residents (Rotate every 6 months)

Frequent interaction or active involvement

Moderate interaction or moderate involvement

Infrequent interaction or peripheral involvement

Figure 8

Dialysis team members' interaction in Organization C
tensions" are centered on the problem of dialysis unit overload, because the nurses do not get involved in primary care nursing* approach due to the possibility of "patient's dependence".

This dialysis care unit has referred patients to psychiatric consultants, but apparently this does not work too well for the client because of the rotation of the psychiatric staff (i.e., the patient does not have an opportunity to see the same psychiatrist each time).

Dietary teaching often begins even before the patient begins dialysis treatments. The same dietitian that works in the dialysis care unit is involved in the early dietary teaching of the clients. Re-instruction of dietary management is done when there are symptoms of non-compliance with the prescribed program (e.g., symptoms of extreme weight gain or high serum potassium levels). It is wondered if the non-compliance to a prescribed diet may ever be considered as symptomatic of something other than lack of client understanding?

The social worker will become involved with the clients in this care system only with a direct physician order. The physician orders generally occur if the patient is having

*Primary care nursing is used here as described by Manthey (1970).
transportation difficulties in coming for dialysis treatments. (It should be remembered that patients come to Columbus for dialysis treatments from twenty-seven different counties. Distance from Columbus can require as much as a three hour drive one way.)

The physician orders for a social work consultation infrequently, however, the other health professionals have at various times attempted to bring the social worker in as an inherent part of the team.

The representative from renal disease special services office operates as a liaison between the patient and other professional services (e.g., health professionals, hospital administrators, Medicare, Social Security Administration, Bureau of Vocational Rehabilitation, and other community agencies). This person performs a total advocate role for clients with renal disease. This advocacy role is generally limited to client financial assistance, however, since this position does not operate as an inherent member of the dialysis team.

As far as can be determined, the clergy member has never been utilized as a professional component in this patient care area.

Thus, there is some degree of formal coordination of medical care found among health professionals in this dialysis care system.
The services being given apparently do not meet the psychological, social and spiritual needs of the clients and thus do not meet the requirements of comprehensive care.

**Coronary Care System**

Organization C's coronary care unit has eight cardiac telemetry units.

Health professionals who are involved in the care of the post-myocardial patient in this organization include: cardiologist coordinator, team nurse coordinator, primary nurses*, resident physicians, occupational therapist, physical therapist, dietitian, social worker, and family nurse practitioner. The interaction of this team is too dynamic to diagram. This team is formalized and meets weekly to discuss specific client's rehabilitation programs. The communication is verbal and by problem orientated records (P.O.R.)** between their formal planning meetings. Each professional discipline has defined its responsibilities, which are printed, so each member of the team is aware of all other members responsibilities. Also prepared is a list of team responsibilities.

*As described by Manthey 1970.

**See Atwood et al (1973) for descriptions of P.O.R.
A list of objectives for patient-family education material and a teaching guide for the cardiac rehabilitation program are included in the cardiac rehabilitation manual. The teaching guide includes a progressive exercise program and teaching goals for: diet, medication, pathophysiology, risk factors and returning home. They also have prepared three patient assessment tools. (One of which includes a list of things taught, when taught and if reinforcement is needed.)

The continuity of patient care between nursing units is accomplished through the P.O.R., the verbal communications between the primary nurses and the team planning sessions.

Continuity of patient care post-hospitalization is accomplished through the P.O.R. and through the attendance of the family nurse practitioner at the team planning sessions. The family nurse practitioner sees the client in the outpatient clinic within a month after dismissal from the hospital and for periodic time intervals thereafter. After each clinic visit the family nurse practitioner will feed-back to the other team members the client's rehabilitation status. This permits the team to further evaluate the outcomes of the team approach to cardiac rehabilitation.

Thus the cardiac care system in this organization has an interdisciplinary team functioning which meets the requirements
for comprehensive care except for an explicit spiritual component. The health care team approach in this cardiac system was implemented in the month of May, so it is premature for a total evaluation of its implementation.

Organization D

This organization contains only a dialysis care system with 22 dialysis stations. The major professional actors in this care system are the nurses and the circulatory technicians. The nephrologist prescribes a medical program for each patient and then is not actively involved again until the patient's physiological condition becomes unstabilized or there is a problem with vascular access for dialysis treatments.

Figure 9 is a pictorial representation of this dialysis care system. This care system is different from the other dialysis care units in that patients are involved in group therapy. Group therapy sessions are led by a professional team who have utilized mental health consultants to help them plan for group sessions. These consultants have also helped the professionals become aware of community services which might be used by their clients.

The group sessions at present, are working very much like those of Alcoholics Anonymous, in that clients are finding their
Figure 9

Dialysis team members' interaction in Organization D
feelings and experiences are not unique. The clients have become active in swapping successful adaptations to living and marriage difficulties.

The professional services to these clients appears to be coordinated between the nurses and the circulatory technicians. However, it would seem that the scope of health services provided would have to be small since there are only two professional resources involved in care planning and in the implementation of these care plans.

Organization D encourages its clients to go outside of its organizational boundaries for some services. (This will be discussed in detail in Chapter V.) Going outside its organizational boundaries can become problematic for the client, however. It took one professional who was skilled in working with bureaucratic systems (Organization C) between three and four months of persistent effort to locate an effective information and service source in one outside agency.

Summary of Intra-organizational (Lateral) Findings

This summary will be presented in the form of a comparison of dialysis care systems and cardiac care systems between organizations. It is believed that a comparison between hospitals can be made due to the extensive structural comparative work of Heydebrand (1973).
Heydebrand (1973) used four major structural variables in studying hospitals: 1) type—whether they were general or psychiatric, 2) size—patient bed capacity, 3) teaching or non-teaching and 4) their type of autonomy. One other structural variable that was used by Heydebrand was the hospitals' approval by the Joint Commission for Accreditation of Hospitals (J.C.A.H.).

The primary organizations (i.e., the hospital, or the first organization with which the clients come into contact) are structurally comparable along most of the Heydebrand dimensions. All three of the hospitals are: general in type; comparable in size (they range from more than 500 beds to less than 1,000 beds); teaching (all have medical and nursing education); and J.C.A.H. approved. The only structural variable that does not permit total comparison is that of autonomy. (Two are religiously connected and one is state operated.)

With the structural similarities among three of Heydebrand's (1973) major variables it is believed that a reasonable comparison between organizations' specific care systems can be made.

From the descriptive data in this chapter it appears that the dialysis care systems among the three hospitals are more comparable than are the dialysis and cardiac systems within the three hospitals.
The dialysis care systems of these three primary care organizations have: 1) the nurse functioning as a major information conduit for the other involved health professionals; 2) an active dietary professional component; 3) some form of financial consultant for processing Medicare claims; 4) no psychiatry or psychologist professional team members; and 5) no representative of the religious community.

Two of the three primary care organizations have formal coordinating mechanisms in the form of weekly meetings which focus on the medical care or physiological needs of the patients. These same two organizations (Organizations A and C) do not have an actively functioning social service component in their dialysis care system.

Thus, the dialysis care systems in the primary care organizations of this community have parallel structures. The professional personnel comprising these structures have a stable employment record in these work settings (i.e., there is little job turn-over). These structures with stable personnel permit the recognition of the client's comprehensive care needs, but do not permit or facilitate the attainment of client's comprehensive care needs.

The descriptive data of this chapter also permit the following observations: the cardiac care system of the primary care organizations has the greatest variance in types of health
professionals involved and in the degree of coordination of these professionals. It would appear that these organizations could be placed upon a continuum of numbers of health disciplines involved and degree of coordination of these professionals.* Thus Organization A would be on the low end of the continuum, followed by Organization B, with Organization C being at the high end of the continuum.

Variance in the cardiac care systems' findings could be attributed to the differences in autonomy of the primary care organizations. Then the question arises: Why is there so little variance between the dialysis care systems and why is there variance between Organization A and B, when both are religiously connected organizations? The cardiac care systems' variance may be explained in part by the complexity of its structure and the job turnover of its personnel. But this explanation does not hold when the consideration is given to the cardiac care system of Organization C, the most complex in the sense of involving more health disciplines.

*It is recognized that a continuum does not handle all the logical possibilities between degree of coordination and numbers of involved health professionals and that a nine fold table could be constructed of the logical possibilities.
This exploratory study cannot offer any firm conclusions about why the cardiac system of Organization C is the most complex in structure and yet the most coordinated. However, it appears that three facts are relevant: 1) the nurse staff development member of this cardiac care system team has had a personal interest in this system for a number of years and has had an opportunity to work in a functioning cardiac rehabilitation team; 2) this staff development person was able to mobilize the health care team personnel; and 3) the health care team personnel were willing to transcend professional domain boundaries and focus upon the common good of comprehensive care for their clients. (The need for transcendence of professional domain is well documented in the literature—Zander, Cohen & Slotland 1957; Beloff 1968, 1972; Rothchild 1970; Rubin and Beckhard 1972; Nagi 1974; and Wise 1974.)
Chapter V- Inter-organizational (Longitudinal) Findings

This chapter will focus primarily upon the informal inter-organizational behavior of the organizations studied. Formal organizational data (i.e., formal agreements and contracts) was gathered; however, none of the primary care organizations (i.e., hospitals) have formal agreements or contracts with any of the organizations with which they interact in the dialysis or cardiac system. The finding is significant in its own respect since the proposed final regulations for H.R. 1 suggest that formal contractual organizational agreements should exist in the renal care systems. Furthermore, this chapter will mainly focus upon the dialysis care system because the coronary care system only interacts with outside agencies (e.g., extended care facilities or Public Health Nursing Department) if the client is old, chronic and has no family available who will be able to provide home care.

The Dialysis Care System

Figure 10 is a diagram of the dialysis patient flow between the primary care organization (i.e., the hospital) and the secondary
Figure 10

Dialysis patient flow between primary and secondary care organizations
organization (i.e., where stabilized chronic hemodialysis patients are referred). This figure makes it explicit that not all primary care organizations in Columbus, Ohio use the free-standing dialysis unit as an extension of their dialysis units.* Organization B's failure to refer stabilized patients to Organization D may in part reflect its unawareness of Organization D's Medicare certification.

The primary care centers' use of Organization D as an extension* of their dialysis units and the passage of H.R. 1 have resulted in the latent consequence of no active home dialysis teaching programs being found in central Ohio. Prior to the H.R. 1 legislation there were three structural incentives operating which encouraged home dialysis (i.e., the least cost therapy):

1) patients and families were motivated toward home dialysis because of their increasing medical bills, which could, considerably taper off after they began providing their own dialysis; 2) hospitals were acquiring economic losses; and 3) in-hospital dialysis units were overflowing their patient capacity. After the passage of H.R. 1 and after the establishment of Organization D in Columbus, Ohio these structural incentives became minimized. Informants

*Organization D is a separate corporate entity but in effect it is an extension of Organizations A and C's dialysis units because the nephrologists of the primary care organizations follow their patients to Organization D.
have speculated that when Organization D reaches an "overflow" status, home dialysis teaching will again become an active program in central Ohio.

A parenthetical comment about the interorganizational behavior regarding the kidney transplantation system is pertinent at this point in the discussion. Organizations A, B, D and a pediatric hospital do send patients to Organization C for kidney transplantation (Organization C is the only certified kidney transplantation center in central Ohio). There is only one occasion on record that Organization A sent a potential kidney transplant from central Ohio to Cleveland.

In addition to the patient flow between primary care and secondary care organizations, there can be information channels established between and among organizations to facilitate the processing of a client's case. Nurses in Organizations A and C do communicate with personnel within Organization D. The communication between organizational nursing personnel generally is narrow in scope and takes the form of discussing obtaining access to the patient's circulatory system for the patients' dialysis treatments. The dietitian from Organizations A and C will do dietary re-instruction for dialysis clients at Organization D who originally were instructed while being dialyzed in the dietitians'
employing organization. Apparently until early 1974 Organization D interacted with social workers at Organization C. One social worker at Organization A was contacted by Organization D for the purpose of facilitating the financial arrangements of one patient. Thus, Organizations A and C do supplement Organization D's health services to clients but with no preconceived or regular pattern.

**Client Advocacy**

Channels of communication are also present, to some extent, between the organizations providing dialysis treatments and other service providing agencies. All the dialysis organizations interact with these service agencies. Figure 11 represents only the client advocacy* interaction between the treatment and other service providers. It can be easily noted that Organization C has a much broader scope of inter-organizational interaction. Organization B has client advocacy contacts with the District Office of Social Security. Organizations A and B inform patients of local Kidney Foundations drug bank. Organization D has made arrangements

*"Client advocacy"*-as used in this study means that the client is assisted in articulating his/her case through the intake system of the organizations. This client advocacy often requires a process of follow-up, not only a one time contact with the future intake organization.
Organizations Providing Treatments

Other Service Agencies Involved Consistently With Client Needs

A

B

C

D

District Office of Social Security Administration

Medicare Intermediary

Welfare

Kidney Foundation

Bureau Vocational Rehabilitation

Crippled Children Services

Drug Store

Figure 11

Client Advocacy Interaction Between Treatment Organizations and Other Service Providers
with one local drug store to provide drugs so their clients can pay on an installment type of plan. (The need for installment buying or deferred payment will be made explicit in Chapter VI.) Figure 11 then, indicates that no positive structure exists in the central Ohio community's dialysis care system that enhances the dialysis patient and his/her family resources to interact with outside service agencies.

Organization C's broader scope in client advocacy between itself and other service providers can possibly be attributed to two factors. First, Organization C has one person assigned for the specific purpose of helping patients and their families through the maze of the Medicare and Social Security required procedures. This person has become knowledgeable of the interim regulations for the implementation of H.R. 1 and is in a position to articulate these regulations to Medicare intermediaries and individuals in the District Social Security Office and in the Bureau of Vocational Rehabilitation. The second factor emerges from this client advocate's regular and frequent interaction with service agencies. The client advocate's consistent and persistent interaction with service agencies has provided this advocate with knowledge of the better and expedient information channels within the service agencies' bureaucracies. For example, in one instance it took from three to four months interaction with one agency before a knowledgeable information source could be found. This experience of a
knowledgeable and healthy person trying to work through service agencies bureaucracies, should demonstrate the problems of a sick person and his/her family trying to navigate through service agencies without some knowledgeable client advocates intervention.

Bureau of Vocational Rehabilitation (BVR) in central Ohio presently has no end-stage renal disease clients. Prior to H.R. 1 BVR had end-stage renal disease patients as part of their caseload. Their underlying philosophy appears to be that the kidney dialysis patients do not live long enough for the services of job training and job placement to be worthwhile. It appears that BVR does not believe that its time and money expenditure is worthwhile unless a person has a life expectancy of at least three years. The local office of BVR apparently believes that the average life expectancy for dialysis patients is less than two years. * Thus the central Ohio BVR generally has established a working standard which requires potential clients to be "signed-up" for a cadaveric kidney transplant. In addition, Sol Richman (Program Specialist with the Rehabilitation Services Administration, Social and Rehabilitation Services, HEW /1975/) has discussed the Rehabilitation Act of 1973 (p.L. 93-112)

*Life expectancy on hemodialysis can vary depending upon the dialysis centers' patient selection criteria and the dialysis centers' past experience with hemodialysis patients. Dialysis patients have lived more than a decade past the implementation of dialysis therapy.
and noted that this act mandated that all handicapped applicants, including those with end-stage renal disease "must be able to benefit in terms of employability." Thus, as long as the central Ohio BVR operates on the underlying assumption that dialysis patients do not live long enough to benefit in terms of employability, dialysis patients will be rejected as BVR clients.

The local Kidney Foundation can be perceived from four different perspectives: from the Kidney Foundation itself; from the renal patient population; from the primary care organizations and from an outsider's perspective. The Kidney Foundation perceives its main functional areas as research and professional education. It does provide some services in the forms of the drug bank and the Kidney Loan Kloset. The Kidney Foundation's drug bank provides drugs for kidney patients at cost and the Kidney Loan Kloset contains 17 artificial kidneys which can be provided for home dialysis at no cost to patients. It is significant to note that the Kidney Foundation and the primary care organizations apparently have little communication about the status of the Kidney Kloset since the primary care organizations are unaware that there are three unused artificial kidneys in the Loan Kloset. These three artificial kidneys could be saving three home dialysis families the rental cost of their artificial kidney.
The second perspective from which to view the Kidney Foundation is that of the dialysis population. The in-center patient population is generally upset with the Kidney Foundation. The in-center population has three criticisms of the local Kidney Foundation: 1) no direct services are provided; 2) when a Kidney Foundation function occurs (i.e., a picnic) registration fees are required; and 3) the drugs which are provided at cost require a "hassle" to obtain (i.e., drugs have to be picked up and the Kidney Foundation's pharmacy is not centrally located; or patients have to have drugs mailed, which requires a two week delay in the drugs' arrival). Also, the patients have found drug stores that sell the drugs for less than the Kidney Foundation's "cost." Thus, there is a great amount of tension between the Kidney Foundation and the people they are designated to help.

The final perspective of the Kidney Foundation's services involves the perception of its services by an outsider (i.e., the researcher). Informally, the Kidney Foundation acts as a patient advocate. Patients, family or friends of patients or potential patients call the Kidney Foundation for information about financial help or other patient services. The Kidney Foundation will directly answer these inquiries or will call the client advocate in Organization C for information they do not readily have and then return a call to the inquirer, offering them the needed information.
The Cardiac Care System

The inter-organizational (longitudinal) behavior in the coronary care system is limited to those few patients that health professionals describe as old, with chronic complications (e.g., congestive heart failure) and with no family available able to provide home care. If the cardiac patient fits this perceived criteria he/she is either sent to an extended care facility or a Public Health Nursing referral is prepared.

Organization C does provide continuity care for clients, by having the Family Nurse practitioner member of their team see the patient in the out-patient clinic at frequent time intervals post-hospitalization.

The Central Ohio Heart Association provides an informal client advocate function much like that of the Kidney Foundation. Former patients, family or friends of patients call the Central Ohio Heart Association about financial help or other client matters.

Summary of Inter-organizational (longitudinal) Findings

The dialysis care system in central Ohio requires that the dialysis patient and his/her family must interact with several organizations. If the dialysis patient is medically stabilized in either Organization A or C, he/she is transferred to Organization D. The nephrologist from the primary care organizations still care for their patients in
Organization D. The only information apparently transferred with the patients to Organization D is their physiological characteristics and possibly the strategy for obtaining blood access for their dialysis treatments. In addition, the dialysis patients also must interact with representatives from the local office of the Social Security Administration and must deal with the paper filing requirements of Medicare.

All the primary care organizations provide some administrative representative to make sure that proper forms are filed with Medicare. This procedure appears to relate to hospital reimbursement.

Organization B and C have health care representatives who interact with a representative of the local office of the Social Security Administration on behalf of the dialysis clients.

Of the primary care organizations, Organization C is the only organization that provides any person in the form of a client advocate. The client advocate is also desirous for the primary care organization to obtain Medicare or some other third party reimbursement, but the client advocate is more motivated to get the bill collectors from the patient and his/her family's front door. Organization C's client advocate helps the patients and their families articulate their cases through the input processes of Social Security Administration, Welfare, Bureau of Vocational Rehabilitation, Crippled Childrens
Services and the various welfare agencies. In addition, this client advocate also helps facilitate the flow of funds to clients from community funds that were collected in behalf of the specific client.*

The Kidney Foundation and the Heart Association in central Ohio once contracted do act as informal coordinating mechanisms and as informal coordinating mechanisms and as client advocates for the dialysis and coronary care systems in central Ohio.

On the other hand, inter-organizational relations for the coronary care system which was studied in Columbus, Ohio are minimal. Inter-organizational behavior in the cardiac care system, when found, was related to the age of the patient, his/her chronic heart complications (e.g., congestive heart failure) and the patients' family structure which could not provide adequate home care. If the cardiac patient meets the previously stated criteria he/she is either sent to an extended care facility or is encouraged to use a Public Health Department nursing visitor.

*Two communities in Ohio have held community fund drives on behalf of certain patients, and then re-ordered the objectives for spending the funds collected. (e.g., The communities now want to spend the collected funds for a community medical screening for renal disease rather than help the patient for whom the funds were originally collected.)
In conclusion, it should be noted that there would have been no inter-organizational findings for this chapter, had not the research design included collecting data from the health care professionals (i.e., the informal structure) of the organizations studied.
Chapter VI- Consequences of Organizational Behavior to the Patient and Patient's Family

This chapter will be presented as a chronology and an analysis of what a typical person with end-stage renal disease encounters as he/she moves through the medical diagnosis and treatment process. The chronology will reflect what the health professionals expressed as the general pattern of dialysis patient flow to and through the care provider organizations. In addition, the chronology will report feelings and beliefs that dialysis patients expressed to the health professionals and to the researcher. The discussion of the health providers' care of dialysis patients will demonstrate that there is for many dialysis patients a downward spiral into a state of dependency which is psychological and economic as well as physiological. The research findings in the dialysis care system then will be combined with observations in the coronary care system to elaborate the consequences of the organizational structure for the post-coronary care patient. Finally, a summary will be made of the major social variables involved in both the dialysis and coronary care systems.

If a person presents himself to his primary care physician with symptoms of kidney disease (e.g., burning or difficulty during urination, particularly at night; passage of bloody-appearing urine; puffiness
around the eyes, swelling of hands and feet; and/or pain in small of the back) and the physician confirms the disease, the physician may delay referral to a nephrologist until the patient's blood creatinine and urea nitrogen (the objective or more "scientific" data) reach certain elevated levels, regardless of how the patient feels or is able to function. Thus, social or psychological variables are seldom considered by the primary care physician in the referral process.

One nephrologist interviewed believes the delay in getting definitive treatment (i.e. hemodialysis) can cost the patient a delay of from three to six months time before he/she starts feeling better.

During the time that the patients await definitive treatment, they often lose their employment unless they are white collar workers at some level of management in their organization. White collar management workers have two advantages over other types of workers: 1) they often can continue to function in some capacity of their job because no great amount of physical exertion is required; and 2) if some degree of job functioning cannot be accomplished, they often can obtain a medical leave of absence and disability insurance from their employers. This chapter will not focus on those white collar workers who are fortunate enough to have understanding and flexible employers, but will focus instead on the majority of the dialysis
It is significant to note at this point in the discussion that the health care system operates on the underlying assumption that women are not job holders. (This assumption can be refuted by the 1970 census data which relate that over 40 per cent of the working force is women.) An informant of the organization where stabilized patients are treated was asked a question about patients who were employed and four examples of employed men were related. When asked about employed women, the respondent reported, "we do have a couple of women who sell Avon products." An additional observation of the underlying assumption of women not being job holders was found through the interviews with informants at BVR. BVR accepts housekeeping and child care as equivalent to "gainful employment."

Concurrent with the illness and job loss the patient and his/her family experience several economic pressures. Even with families that previously had two employed adults, problems arise. They no longer can pay their rent or mortgages and maintain their food supplies and transportation needs. Transportation becomes problematic for these families because of the distances they must travel and the need for two to three times a week dialysis treatments. (Transportation problems will be elaborated more in a later section of this chapter.) Thus, even

*There were a total of 105 dialysis patients being treated in Columbus, Ohio in May 1975. Of this 105 patients, there was only one person on dialysis who is a white collar worker.
with good hospitalization insurance, economic family crises can arise just because the family income has stopped or is diminished substantially.

When the ill member of the family contacts the knowledgable renal disease person at the local office of the Social Security Administration, application is generally made for Social Security disability. This application is significant in two ways. First, the HR 1 legislation is explicit in saying that the person will be deemed disabled for purposes of Medicare coverage, but often at this point in a person's disease process he/she is unable to work so is truly "disabled" as defined by the representative of the local Social Security Administration. The Social Security representative encourages the person with end-stage renal disease to apply for Social Security Disability at the time the person with end-stage renal disease starts processing his application for Medicare coverage. Second, after applying for Social Security Disability Benefits there is often a delay of nearly six months before the first Social Security check reaches the recipient. This Social Security check contains payment for both month five and month six of disability. In the meantime, the only economic relief available is often in the form of a maximum of $100.00 emergency assistance from the county welfare department. This $100.00 emergency assistance is a one time economic assistance and is contingent upon proof of indigence. (Ultimately this $100.00 assistance is deducted from the families' first
Supplemental Security Income check.) Other than the emergency assistance, the ill family member can also apply for Supplemental Security Income at the local Social Security Office. The Supplemental Security Income often takes as long as 60 to 90 days before money becomes available from this source. The local welfare departments delay any further assistance until the family is declared eligible for Supplemental Security Income via the local office of the Social Security Administration. Thus, the family has the potential of acquiring $100.00 maximum between the time the family member lost his/her job and two to three months after applying for Supplemental Security Income. In the meantime, the family has its usual required running expenses (i.e. food, housing and transportation) plus the expenses of a special diet, medications, transportation to the dialysis center and maintenance of costly private medical insurance.

The need to keep the family's medical insurance current is reflected in the fact that there are gaps in Medicare coverage. Medicare does not pay for dialysis until the passage of two full calendar months after the month of chronic hemodialysis treatment began. This time can be the most expensive period of treatment due to two facts: 1) difficulty in attaining a physiological stabilization for the patient and 2) home training, which is more costly than routine dialysis, may be being initiated. Home training requires a lot of personal instruction on the part of the dialysis unit personnel and it requires setting up the
patient's home for the operation of the artificial kidney machine.

In addition, Medicare coverage is composed of two parts:

Briefly Part A of Medicare covers in-hospital cost after a $92.00 deductible. After 60 days of hospitalization, co-insurance is applied at $23.00 per day; and at $46.00 per day after 90 days. The patient's private insurance, or outside funding agency is billed for the deductible and co-insurance. Part B of Medicare provides coverage for out-patient and physician charges. Part B is particularly relevant for the dialysis patient, since dialysis is generally done on an out-patient basis. Coverage for Part B is at 80% of the treatment organizations' costs and 80% of the "allowable" physician charges. Very few physicians are willing to accept assignment under present Medicare fee schedules, so payment often goes to the patient who is then responsible for the total charge. The treatment organizations bill the Medicare program for dialysis therapy under Part B to the Part A Medicare intermediary. The balance of 20%, upwards of $84.00 per week, is billed to private insurance, outside funding agency or the patient. Thus, it is possible that since the patient's family has already undergone extreme economic setbacks and has little if any income, it is totally unable to pay those costs with or without private health insurance. At times the dialysis families have been "hassled" by collection agencies who are operating from the treatment organizations' accounting departments' computer print-out.
The 20 per cent balance after Medicare may be related to another observation. It appears that the private insurance companies are now using Medicare guidelines rather than the patient's private contract for their own reimbursement procedure. Presently the Medicare intermediaries may only reimburse 80% of their billed 20% part of the Medicare Part B. Thus, if in-center dialysis treatments cost $30,000* per year and Medicare would pay 80% of this cost; then if the private insurer would pay 80% of the remaining 20%; it is possible that the patient could be charged as much as $1,200 per year.

The premiums of Part B Medicare is $6.70 per month paid quarterly, or biannually. If these premiums are not paid, then the patient is ineligible for Part B Medicare coverage. The State Welfare Department has agreed to accept responsibility for payment of the Part B Medicare premiums. However, it is important to note, as previously reported, that the local welfare office will not become actively involved with a client until the Social Security Administration determines client eligibility for Supplemental Security Income.

Another source of financial assistance to dialysis families involved in an economic as well as a physiological crisis is in the form of food stamps. Food stamps are also contingent upon the families obtaining supplemental security income. After the families have acquired their first Supplemental Security Income check, they then must go to their

*estimate by Hoffstein
county welfare office to apply for a food stamp allocation. After qualifying for food stamps, the families must provide the local welfare office with monthly financial update of their incomes.

There appear to be discrepancies in the adjudication process of the Social Security Administration and the Welfare Departments in central Ohio. For example, in central Ohio there is one family with four children that has a family income of $2,080 per year or $80 every two weeks. This family applied for Supplemental Security Income in January 1975 and as of July 9, 1975 they still had not received their first Supplemental Security Income check. They, therefore, still cannot get their local welfare office to assist them financially or with food stamp allocations. On the other hand, also in central Ohio, there is another family with three children that has a family income of $12,000 per year and does qualify for Supplemental Security Income, food stamps and has Bureau of Crippled Children assistance. Thus some questions arise as to what criteria are used for determining family eligibility for supplemental security income, welfare and food stamps.

The patient now has all the economic problems compounding his disabled label, particularly if the patient is a man who has established his self-concept around an instrumental role of "breadwinner."

Further compounding of the poor quality of the patient's physiological, emotional, and economic states occurs through the health care professionals and family members themselves. Szasz and Hollender
(1956) note three types of health team-patient relationships:

1) "active-passivity" where the patient is totally dependent upon the health care team; 2) "guidance-cooperation" where the patient is a little less passive but is expected to accept the health professional's advice and treatment without question; and 3) "mutual-participation" where the patient is given more authority, for, in many instances the patient is better able to determine his capabilities and needs for treatment than are the health professionals. Szasz and Hollender (1956) note that the first two types of relationships are the ones usually found in acute illness care planning; however, the third type is not usually found in medical practice, but is required for chronic illness planning.

The "mutual-participation" type of health team-patient relationship becomes more meaningful in the context of chronic illness care when consideration is given to the fact that Parsons' (1951) institutional expectations of the sick role may need further elaboration. Parsons (1951) relates that one expectation of society is an obligation for the patient to want and to try to get well. However, it is possible that the significant others (members of society) to the patient neither expect the patient to get well nor do they genuinely desire improvement in the patient's condition. (Bursten and D'Esopo 1965; Callahan et al 1966) It is easy to conclude that a patient is deviant when he is not complying with society's expectations that he should want to get well and that he is accomplishing a secondary gain by his refusal to "get well."
However, the "deviant behavior" may actually be compliant behavior. The patient's behavior may be compliant in two ways: 1) the family does not expect the patient to get better (Bursten and D'Esopo 1965; Callahan et al 1966) or may have expanded other family members' roles so that the patient member of the family no longer perceives himself having an instrumental family role (Hill: 1949); or 2) the health team resists any relationship with the patient that is not an "activity-passivity" or "guidance cooperation" type (Bursten and D'Esopo 1965; Callahan et al 1966; Rothchild 1970).

The compliant behavior discussed in the preceding paragraph makes an interesting assumption. The assumption is: the family and health care team members agree among themselves as to the degree of the "disabled person's" dependency. This study has demonstrated that the health professionals are not using the concepts and principles of comprehensive care* and therefore the families are not assessed as to their understanding of the patient members' physiological condition nor are they adequately assisted in their economic, psychological and social problem solving. Additionally, this study has demonstrated minimal utilization of various health professional resources. Further, it has demonstrated that any coordination of these health care resources occurs through the nurse functioning as an information conduit. Thus,

*Comprehensive care as defined in this study
it is entirely possible that the patient's significant others (family and health professionals) do not agree among themselves as to the degree of the patient's dependency. Rothschild (1970) notes that if a patient is subjected to a variety of expectations this may result in the patient feeling a degree of normlessness. It is further noted by Rothschild (1970) that the various expectations encountered by the patient result in his being socially as well as physically disabled.

The patient's social disability if further enhanced by the fact that he is not routinely included in decision-making about his dialysis program. The patient's dialysis is done for him; he is generally a passive recipient of dialysis. Organization A is the only organization studied that attempted to encourage the patient to take an active role in the dialysis procedure. For the other units, however, dialysis times are scheduled by the health professionals and are often altered due to an intake of "acute" dialysis patients. Sometimes the "less acute" dialysis patient misses a dialysis treatment due to being "bumped" by a patient with more "acute dialysis" needs. The frequent procedure of "bumping" the "less acute" patient and spouse (or the family). Home dialysis also permits the patient and his/her family to decide when dialysis treatments will occur. Thus, home dialysis offers independence and an active role in decision making about dialysis treatment. The patient and spouse (or other family members) literally become dialysis technicians themselves. Home dialysis in central
Ohio, however, is not one of the major modalities of treatment being considered due to the lack of organizational and family incentives (see discussion in Chapter V).

After the definitive treatment (hemodialysis) program has taken physiological effect for the patient, and if the patient again becomes aggressive enough to seek re-employment or employment, the patient meets other social barriers. The social barriers to employment can be found in several forms. If the patient's past occupation is one that can continue to be pursued, the employers or potential employer may argue that their organization's group health insurance rate will go up; or the employer (or potential employer) and/or the Labor Union may require a 40-hour working week. The patient whose past occupation cannot be continued meets with another problem. This patient will need job training for another skill; however, as noted in the previous discussion (see Chapter V) the Bureau of Vocational Rehabilitation resists accepting dialysis patients in its case load.

The employing organizations or the labor union's requirement for a 40-hour work week is problematic to any dialysis patient's employment. Dialysis patients have to spend at least six hours, two to three times a week, at their dialysis treatment centers. The patients generally experience some degree of fatigue immediately after their dialysis procedure, so they can have problems returning to work immediately after their treatment. The dialysis procedure is done in the morning or early
afternoon, which prohibits an eight-hour working day of either days or evenings. A third of the patients who are dialyzed in central Ohio come from considerable geographical distance (see Figure 12 for counties where central Ohio dialysis patients live). Thus, a patient being dialyzed three times a week, driving one hundred miles one way to Columbus, would consume at least 30 hours of his time during one week, (estimating at least 12 hours for travel and 18 hours for being at the dialysis treatment center). Therefore, the dialysis schedule, the patient's physiological fatigue and the travel time would require a great deal of flexibility in the employer's and employee's working hours.

Transportation itself presents a problem to dialysis patients. The patient often has to depend upon a family member or a friend to drive him/her to the dialysis center. After dialysis many patients claim they are "too washed out" to drive themselves home. Franklin County Welfare provides money for patients in its case load to use a taxi for transportation to dialysis centers. However, residents in other counties either have to drive themselves or find some other person to drive them to Columbus, wait approximately six hours and then drive the return to the patient's home. Using the previous example of the one hundred mile trip, three times a week, the driver for the patient would also consume thirty hours of his time. Thus, it is likely that the patient's driver is or has to be unemployed. There is a major need to either eliminate transportation requirements or to provide adequate transportation
Figure 12

Ohio map depicting counties of residence for dialysis patients
services in central Ohio.

The dialysis patients' problems with the bureaucratic barriers to employment coupled with ultimately receiving Social Security Disability and Supplemental Security Income usually result in the patients' resolving to stay unemployed.

It would appear that the compounding consequences of the patient's physiological state, his/her economic state, the expectations of his/her family and health team members and the social barriers to employment all result in the patient becoming a dependent person who expresses a feeling of low self-esteem, particularly if role reversal has occurred in the family (e.g. one person requiring dialysis treatments called himself a "househusband").

The health professionals in central Ohio are not generally involved (except for the little that is accomplished in the group therapy sessions in Organization D) in assisting patients and families to adjust to the dialysis way of life, to reconstruct self-concepts, or to re-structuring family roles. As one nurse aptly stated: "These people (kidney disease patients) are caught in a current--yes, we will let them live, but we are not too concerned about the quality of life they will have to lead."
Consequences of Organizational Behavior to the Coronary Patients and Coronary Patients' Families

Diagnosis of myocardial infarctions appears to have an advantage over the diagnosis of end-stage renal disease in that the objective (more "scientific") data and the patient's subjective state often are highly correlated during the acute myocardial attack. After the patient's pain (subjective symptoms) subsides, however, the patient does not "feel sick". Even without "feeling sick", the person who has had a myocardial infarction is off work from six to twelve weeks. As with the person with end-stage renal disease, this requirement for being off work seems to offer no problem to the white-collar worker at some level of management in his/her employing organization. These persons have the same advantages discussed for the person on dialysis (i.e., no great amount of physical exertion is required in work functions; and they often have medical leaves of absence of disability insurance through their employing organization). The occupational demands of the white-collar worker permit them to return to their former occupation with little or no economic strain during their weeks off.

There also can be parallel findings between the laborer who is a dialysis patient and the laborer who has had a myocardial infarction. The post-myocardial infarction laborer, like the dialysis laborer, does not receive any income during the weeks of recuperation and often has
to change occupations due to the requirement that physical exertion be minimized. The post-myocardial infarction laborer is also like the dialysis laborer in that the family's economic surplus (if it has any) is exhausted just maintaining requirements for housing, food and transportation. It is likely that the cardiac laborer will also have to turn to public assistance. Unlike the dialysis laborer, however, the cardiac laborer falls into a social limbo between being disabled and not being disabled. The cardiac laborer is "physically disabled" from his particular job, but not "physically disabled" for another occupation. This social limbo can place the cardiac laborer in a strained negotiating position for the Social Security Administration's Disability Income. In the meantime the cardiac laborer's physician does not refer the patient to the Bureau of Vocational Rehabilitation for training for another occupation until six to eight months after the patient's hospitalization. (It should be noted that the nurses in two organizations \(A\) and \(B\) were not aware of the ultimate medical rehabilitation goal for cardiac patients. A question also arises as to whether the physicians themselves were aware of their ultimate rehabilitation goal at the time of patients' dismissal from the hospital because of incomplete data on the patients' exercise tolerance.)

The post-coronary patient who has physiological complications (i.e. arrhythmias and repeated myocardial infarctions), like the dialysis patients, come to Columbus, Ohio from counties other than
Franklin county. (see Figure 13 for counties of cardiac patient residence.) Unlike the dialysis patient, however, they must travel to Columbus only once a month for these continued cardiac evaluations.

Organizations B and C involve the families in learning about the patient's heart attack. Organization C is the only organization that coordinates health professionals' therapeutic approaches to their patients. Organization C also uses a degree of the "mutual participation" type relationship with its patients. It therefore can be assumed that for Organizations A and B, the cardiac laborer is subjected to a variety of behavior expectations from family members and health professionals resulting in feeling a degree of anomie; thus, leaving the cardiac laborer with a social disability much like that of the dialysis laborer.

The health professionals in the organizations studied, with a degree of exception for Organization C, are not generally involved in assisting patients and families to adjust to a post-coronary way of life; or to re-construct self-concepts; or to re-structuring family roles. Because of these findings, it would again seem apt to quote the nurse who was referring to kidney disease patients. "These people are caught in a current--yes, we will let them live; but we are not concerned about the quality of life they will have to lead."

In conclusion, the social variables of sex and occupation as well as the physiological states of both the cardiac and dialysis population do have varying degrees of impact upon the patients. Columbus, Ohio's
Figure 13

Ohio map depicting counties of residence for coronary patients
health care professionals, in general, in caring for both the cardiac
and dialysis population apparently assume that all patients are white
collar workers at some level of management within their organization,
because they do not actively involve themselves in assisting patients
and families in their problem solving.
Chapter VII- Analysis of Health Care Services
(Lateral-Longitudinal) Findings for Dialysis and Coronary Care Systems

This analysis of the organizations' lateral and longitudinal orientation to clients (health care services) will combine the observations made during this study with those reported in the literature. The literature has considered facilitators to group processes and to comprehensive care. Further, the literature has considered structural barriers to professional (as opposed to bureaucratic) behavior, but no single piece of literature has brought together the facilitators to group processes and the structural barriers to professional behavior. This analytical chapter will combine the related literature with the lateral and longitudinal findings of this study and will advance comprehensive statements of the facilitators and barriers to both the lateral and longitudinal health care services. First to be considered will be the barriers to the lateral-longitudinal orientation of organizations to clients. Following that discussion will be a discussion of the possible facilitators to organizations' lateral-longitudinal orientations to clients.

Thus far, this study has demonstrated that the dialysis care system and the coronary care systems in Columbus, Ohio are meeting various
degrees of their patients' comprehensive care* needs. Several possible reasons for the apparent variation in degree of health services provided have previously been advanced (see Chapters V and VI). This present discussion will reiterate the previously stated reasons plus advance further reasons that are apparently involved in the variation in the degree of health services provided.

**Barriers to Health Care Services (Lateral-Longitudinal Organization Orientation to Clients)**

As early as 1941, Siegerist (1941) noted that as patterns of medical and social change occurred there was an increasing need for a "social physician." Weinerman (1962) himself, and in conjunction with Beloff (1967, 1968, 1970), has elaborated on the "social physician" practitioner concept. It appears that the need for this new type of physician emerged in part as a result of social factors which have removed the family supports previously found in the extended family, and with a concurrent emphasis toward medical specialization in the physician community. The arrival of medical specialization, with its

*This study has used comprehensive care as specified by Cherkasky and Oppenheim (1958: 47-51). Comprehensive or total care must: 1) "bring to the patient the best available scientific medical treatment that the illness demands; 2) take into account that the patient is a social being where relationships to his family and society may be severely disrupted by his illness; and 3) meet the multiple needs of the patients by providing several health workers functioning as a team."
inherent fragmentation of health care, has maximized the difficulty of delivering comprehensive health services. Weinerman (1962) suggests that the social physicians can facilitate the delivery of comprehensive health services because they are skilled in social organization as well as the use of modern technical resources and are accepting the vital roles of non-medical members of the health team. (Weinerman 1962:1267)

An educational program for the social physician has been slow to develop. Snoke and Weinerman (1965) did an extensive review of comprehensive care programs in University Medical Centers. Their study concluded that few medical education programs have been able to achieve "truly comprehensive content."

While almost all have based their activities in general or special medical clinics, and while most included pediatrics and psychiatry, no consistent pattern has evolved for utilizing other clinical disciplines. In addition, the 'sister' services, such as public health nursing, social work, and health education, have been inconsistently represented. (Snoke and Weinerman, 1965)

Beloff's initial efforts (1967-1968) at attempting to overcome traditional barriers of free interdisciplinary communication ran into the problem of the medical faculty members resisting the delegation of responsibility for patient care to paramedical colleagues. While studying programs of medical education, Beloff (1970) set up an experimental design using comprehensive care principles (approaches used: health care team and the student physicians following families
through time) as an independent variable. Beloff (1970) found that by introducing comprehensive care concepts during the third year and continuing the use of these concepts through the fourth year of medical school, the likelihood of student physicians believing in this style of medical practice was increased. The type of medical education that Beloff (1970) has described is an exception in medical education rather than the norm.

Rubin and Beckhard (1974) also note medical education as a barrier to effective health care team functioning. They argue that the physician's educational background results in the physician becoming accustomed to being the primary authority. However, as a team member the specialist physician is asked to become more of a generalist and to teach other health workers some medical knowledge. In addition, Rubin and Beckhard (1974) relate the need of the medical specialist to learn about the community's social problems and the character mores and values of particular patient populations from the paramedical professionals.

The physicians' perception of their role in health care services is not the only barrier to effective functioning of the health care team. Rubin and Beckhard (1974:321) have identified five powerful norms in the health care teams they studied. One norm identified was: "Doctors are more important than other team members." This same observation was made by Beloff (1968) and Wise (1974). Educational
factors in part, may be involved in this norms operation; however, it is also possible that other factors are related to Rubin and Beckhard's (1974) observation of "submissiveness" on the part of nurses and other health workers. It is possible that sex composition of the health professionals makes a contribution to the operation of norms of "physicians" being more important. Sixty-four per cent of the nation's health care workers are women, but only nine per cent of the nation's physicians are women*; therefore it is possible that sex roles are involved in the operation of this norm. Another contributing factor to the operation of the norms that "physicians are more important" may be found in the structure of the other health professional's work setting. Corwin (1961a, 1961b) and Kramer (1970) argue a strong case for the hospital's work setting having a negative impact upon the professional behavior of nurses. Corwin and Kramer note that the professional behavior of nurses is subjugated to the bureaucratic functions of the hospital. Nurses compromise the value of comprehensive health care to the bureaucratic reward structure or leave their employment. Thus, education, sex roles and the structure of the work setting are all possible factors contributing to the norm of the "physician being more important."

*Calculations computed from Table 221 United States Summary of 1970 Census
As long as the functional diffuseness of the physicians' technology is considered salient by physicians and other health professionals, efforts at accomplishing an effective health care team approach will not succeed. Implicit in the assumption of the "physician being more important" is a hierarchical arrangement of health care organization with an attendant uni-directional flow of information.* Uni-directional information flow minimizes coordination of health care services because the decision maker (i.e. the physician) does not have a broad enough information base of client needs and of health resources available to meet comprehensive care needs of the client.

The process of specialization differentiates elements which were formerly fused. The current problem then, is to re-establish a relationship among these elements. Etizoni (1964), while discussing the fragmentation of elements as a result of bureaucratization suggests that the fragmented elements can be reintegrated by "institutional bridges." It would appear that only the coronary care system of Organization C has these "institutional bridges" which could be

*Wise (1974) contrasts a surgical team, where uni-directional information flow is appropriate because there is a specific task to be done and the health team of a community health center where uni-directional information flow is inappropriate because of the diffuse nature of the task to be done.
considered "extensive"* in nature. The other care systems in the organizations studied do have "intensive" structures generally found between the nurse and other departmental representatives which often operate on an ad hoc basis. The "intensive" structures provide a less than maximum degree of coordination between the previously merged elements of patient care.

Beloff (1968) and Walton (1966) note the need for stability among team members for effective team operations. It was reported by Beloff (1968) that it took almost a year of the team members functioning together before mutual respect was gained among the team members. As was noted in Chapter IV personnel turnover was highest among personnel of the coronary system in Organizations A and B. It should also be noted that all the primary care organizations studied were involved in physicians and nurse education. Curriculum requirements for students include constant student rotations to various patient services. In addition, some service departments rotate their personnel to various patient services and from one working shift to another.

*Walton (1966:415) has defined structural dimensions of joint decision making: "intensive" involves more or less frequent interactions between representatives of two units. The coordinative decision structure can be "extensive" when it involves a greater number of interacting persons from two units. Walton's "extensive" team will be modified to also include more than two units (i.e. departments).
Thus, personnel turnover from organizations and personnel rotations within organizations can hinder effective team functioning because of the limited number of possible interactions with the same team members.

Walton's (1966) theoretical model involving decision making relates an interaction between three variables: the type of joint decision making; structure of the inter-unit relationship; and attitudes between units. Walton (1966) describes two types of joint decision making: problem-solving and bargaining. Problem solving was expected to be accompanied by a high rate of interdepartmental interaction, many persons entering into these interactions; few limitations regarding the type of contact a person may have with the other department, infrequent appeals to higher officials, decision rules which were informal, loosely interpreted and constantly changing, considerable experimentation in decision procedure and organization. The bargaining process would be accompanied by a structure with the opposite characteristics. (Walton (1966:417)

It has been reported by Wise (1974) and Rubin and Beckhard (1974) that the decision making process involving joint problem solving results in role ambiguity, role conflict and role overload. These consequences of joint problem solving and the past behavior of health team members often result in a drift back to the traditional hierarchical arrangement of health professionals. However, as noted by Wise (1974) and Rubin and Beckhard (1974) when unilateral decision making occurs, commitment to the decision is minimal,
less information is shared, and anxiety and frustrations among health team members are increased. These observations would help substantiate Walton's (1966) model that types of decision making, structure and personnel attitudes do in fact inter-relate.

There appears to be an underlying assumption to Wise (1974) and Rubin and Beckhard's (1974) work. That assumption is that the technologies, or approaches to patient care, are consistent within a given profession. Scott (1972) and Friedson (1970) argue that there are differences in the activities performed, the methodology and the techniques employed and the relationships with clients and colleagues within a given professional group. The findings among the coronary care systems of this study concur with Scott's (1972) and Friedson's (1970) observations in that there are variations of behavior among the cardiologists and among the other health professionals.

It is the researcher's opinion that the inherent consequences of the problems associated with joint-problem solving, lack of stability of team membership, and intensive ad hoc type of health care team structures are: 1) health professionals are unaware of other professional disciplines potential contributions to comprehensive health care; 2) health care team members perceive no
common goal for the health care of their client; 3) patients maintain a "sick role obligation" due to conflicting role expectations; and 4) the minimal interaction of team members limits their knowledge of potential community resources.

Litwak (1962) notes three conditions for linkages to occur among organizations. One of Litwak's conditions is for the organizations to be aware of their interdependence. This "awareness" appears to be problematic in that "agencies seem surprisingly unaware and uninterested in the activities of other agencies with which it would appear they should have close functional relationships" (Baker and Schulberg 1970:186). The work of Allen et al (1974) and this present study would tend to substantiate this observation. However, the present study does demonstrate a functional and interdependent relationship with the dialysis care systems of Organizations A and C utilizing Organization D. This functional relationship would appear to be more of meeting organization's needs (i.e. unit overflow) rather than meeting client's needs.

*Observations 1 and 2 have also been documented by Nagi (1974), Scott (1972), Beloff (1968), and Rothchild (1970)

**see Chapter VI for an elaboration on this phenomena
When clients are referred outside the primary care organization they can have difficulty being accepted into the outside agencies' case load. This difficulty can arise from two reasons: 1) the primary care organization has not facilitated the client's referral; (this study has noted the presence of only one patient advocate with extensive interorganization contacts), and 2) the agency may already have a large case load. Nagi (1974) has provided empirical evidence and this hypothesis: "When the balances of services' supply and demand is in favor of demand, the tendency will be to reject doubtful applicants" Nagi 1974:51). Further Nagi (1974) relates that during the early history of an organization, an organization may lack clients and is therefore less selective in its gate-keeping operations. However, as an organization's client case load increases, more stringent selection criteria are applied to potential clients. This behavior pattern during the "aging process" of an organization is significant to note, because the service agencies (eg. Social Security Administration, Bureau of Vocational Rehabilitation and the Department of Public Welfare) involved in providing services to adult end-stage renal disease and cardiac clients are all relatively "old" organizations.
This current study also noted that organizations' commitments to patients with certain categorical disease processes (i.e. cardiac and renal disease) may be minimized due to the fact that a greater proportion of their case load involves clients with other categorical disease processes.

Thus, with minimal use of client advocates, narrowly defined selection criteria and with minimal commitment to cardiac and renal categorical disease process, clients maximum utilization of outside service organizations may tend to be constrained.

The major barrier to comprehensive health services or lateral-longitudinal organizations orientation to clients can be summarized by considering the following factors: 1) professional education and orientation to health care team approaches, 2) difficulty in working with diffuse tasks and role ambiguities, 3) lack of "perceived" common health care goals by the health care team, 4) instability of health care team membership, 5) patients tendency to adapt a sick-role obligation due to structure of health services, 6) primary care organizations' unawareness of outside agencies services, 7) lack of client advocacy, 8) narrowly defined selection criteria of outside service agencies, and 9) low commitments by state agencies to patients with categorical disease processes which accounts for a small proportion of the agencies' total caseload.
Facilitators to Health Care Services (Lateral-Longitudinal Organizational Orientation to Clients)

Health care literature abounds with statements to the effect that specialization has resulted in the fragmentation of health care. Since this statement appears to be so widely accepted it is a wonder that organizational resources have not been actively brought to bear upon the re-integration of previously fused health services. This section will delineate the still emergent facilitators to integrated health care.

There are some medical education programs that are attempting to produce the "social physician" who is committed to comprehensive health care the health care team approaches to patient care. (Beloff 1968, Weinerman 1974) But the major trends in medical education in the United States have been summarized as specialization, association and institutionalization of medical practice (Weinerman 1974). It would appear that if medical education programs would become more committed to the need for educating "social physicians" that one barrier to the provision of quality health care would be resolved.

Health professionals other than physicians, who are primarily women, may have some of their past submissiveness removed by: the women's movement, increases in professional self-confidence such as those encouraged by Neugarten (1974) and Weaver (1975).
The unqualified physician's professional dominance as presented by Friedson (1970) is apparently beginning to erode. Guest (1972) notes some of the evidence and evolution of this professional dominance erosion: 1) The physician's privileges as a "guest" in a hospital are being limited by increasing pressures to conform to organizational constraints of the medical staff, the hospital and third-party payers. 2) The physician is becoming increasingly inter-dependent in relationships with colleagues, other professionals, the hospital administrator and the governing authority of the organization. 3) The physician still has a fee for services, but the fees are becoming increasingly set by pre-established schedules under Medicare, Medicaid and other third-party payers. 4) The responsibility for "total patient treatment" appears to be shifting toward greater involvement with other health professionals; and 5) Physicians are seen less and less in solo practice and are becoming to be frequently found in some "organizational niche." (Guest 1972:294) Thus, physicians professional dominance has and is being challenged.

As was noted in earlier discussions of barriers to health services, the hospital work setting does have a negative impact upon the professional behavior of nurses. Thus, one facilitator to attaining comprehensive care would be to change the hospitals'
bureaucratic reward structure to a reward system* for providing comprehensive care. The work setting could also provide mechanisms to accomplish stability of memberships within the functioning health care team. The stability of health team memberships would also be a facilitator to providing comprehensive patient care.

Barriers to effective team joint problem solving (as elaborated in the barriers to health care services section) can be minimized by having each health professional identify their specific functions, much as was done in Organizations C's coronary care system. This procedure can help facilitate other health professionals becoming more knowledgeable of other professionals' functions. Wise (1974) and Rubin and Beckhard (1974) also encourage the use of a group dynamics consultant who utilizes an action research approach to improve the health care team's effectiveness. Rubin and Beckhard (1974) believe there is a unique connection between what a team does and how it goes about doing it. The action research approach

*A reward system that would facilitate comprehensive care, would reward professionals by monetary and/or status means when the professional would actively refer patients to other health professionals and other health service agencies and would actively participate in health care team planning and care.
to the team's group dynamics actually results in the team becoming autotherapeutic. Thus, the team will "re-charge" itself and will be maintained to pursue its tasks in a more productive manner. Inherent too in making a team more effective is the need for its members to meet. Wise (1974) relates an irony that he realized: a football team may spend forty hours a week practicing teamwork for the two hours each week when their teamwork really pays off. But "teams" in organizations seldom spend two hours per year practicing when their ability as a team counts more than forty hours per week (Wise 1974:542).

If effective teamwork did occur it would remove some of the structures that result in the patient accepting the "sick role obligation".* If the patient can remain in more active roles, the consequences of personal and economic dependency may be diminished.

Other facilitators to health services would be found in the form of client advocates who help the clients articulate their problems to other service agencies. Client advocates could also facilitate the occurrence of linkage among health care organizations. The client advocates could also function in beginning and maintaining

*see Chapter VI for a description of this phenomena
an information-referral service. An information-referral service data system could be developed for use in planning, evaluation and decision making. Data in this system would provide the answers to the following questions: 1) What kinds of problems are presented? 2) Who is being served? 3) Who made the referral? 4) To what agencies are clients being referred? and 5) What are the gaps in services provided? Demone and Long (1974:131)

As early as 1961, Levine and White (1961) noted a tension between state organizations' goals and public goals. They presented a case of a state organization having to justify its existence by presenting a report to their state legislature of a certain 'minimum number' of persons successfully rehabilitated. The rehabilitative goal of the state organization cannot be met unless the organization has narrowly defined selective criteria. Thus, the state organizations may not be meeting the needs of the most dehabilitated clients. Nagi (1969:152) reports that among applicants for disability benefits, some were denied benefits because their disability was not severe enough, and yet were also rejected by rehabilitation organizations because their disability was too severe for them to be rehabilitated. It would appear that the organizational rewards as perceived by the Bureau of Vocational Rehabilitation and by the local office of the Social Security Administrations do hinder the
provision of services to people. Therefore, to facilitate services being provided by these agencies, it would be necessary to alter their reward structure. Nagi (1974) notes the need to change the health services reward system, but recognizes that a model to change present reward structures does not exist. Nagi (1974) however does suggest what these models should include:

1) to build into the reward systems reinforcement for an orientation and a commitment to optimal services, and 2) to afford applicants and clients assistance in moving through the complexity of systems of services and a redress for their grievances. (Nagi 1974:57)

A final facilitator for improving health services for clients, is in the form of federal legislation. During the 1960's laws were enacted establishing Medicare and Medicaid. Two other laws enacted during that decade were Regional Medical Programs (PL 89-239) and Comprehensive Health Planning (PL 89-749).

These latter two legislative acts in essence required cooperation among health service providers. Medicare and Medicaid requires health care organizations to provide utilization review. In essence, utilization relates to whether a patient need be hospitalized, and if hospitalized, that the patient stays no longer than is medically deemed necessary. The legislation that provided for end-stage renal disease patients following under
Medicare coverage (PL 92-603) also requires Professional Standards Review Organizations (P.S.R.O's). The federal regulations state that "The P.S.R.O. law provides for P.S.R.O.'s to rely on the review activities of hospital utilization review committees which the P.S.R.O. determines are functioning effectively." (Federal Register, November 29, 1974)

The primary care organizations studied in Columbus, Ohio are determining admission certification and then are assigning an appropriate extended stay review date based upon at least the patient's age and diagnosis. Extended stay reviews are conducted prior to or on the day assigned through the admission review procedures. If at this time, it is deemed a medical necessity that the patient's stay be continued another review date is assigned. On that date the patient's medical necessity for continued stay is again reviewed. This process is repeated as long as there is deemed a medical necessity for the patient remaining as an in-patient. It appears that the "medical necessity" requirement of these review procedures is defined along physiological needs. Thus, the social-psychological and rehabilitative aspects of the patients need matrix and are not considered as part of the "medical necessity" for continued in-patient study. The "medical necessity" requirement has evolved into an implicit reward for the in-patient organization to have low average lengths (in comparison to comparable
care organizations), patient stay, based upon patient's age and
categorical disease. Recent revisions of the Federal Regulations
(November 29, 1974) require the participation of health professionals
other than physicians in the committees involved in review functions.
This change in the composition of the committee may result in
factors other than the patient's physiological status being con-
sidered. However, as Beloff (1968), Rubin and Beckhard (1974)
and Wise (1974) have noted, it is naive to bring together people
from various professional disciplines and expect them to behave
as a team involved in joint-problem solving. Thus, for health
legislation monitoring devices to function in facilitating the provi-
sion of effective health services all the previously discussed
barriers and facilitators to comprehensive care need careful
consideration.

In conclusion, there are several potential ways of facilitating
the provisions of comprehensive health care or of enhancing the
lateral-longitudinal organizational orientation to clients:
1) Encourage more of a commitment on the part of medical education
programs for educating the "social physician." 2) Work toward
removal of factors contributing to the "submissiveness" of
non-physician health professionals. 3) Change the reward
structures of health care organizations to maximize the provision
of comprehensive care. 4) Facilitate health care teams' effectiveness by including an action research consultant during the team's formation process. 5) Facilitate stability in the teams' membership. 6) Encourage frequent team meetings. 7) Provide client advocates. 8) Provide a client referral monitoring device as described by Demone (1974). 9) Alter the health service providers inherent reward system from processing numbers of people to providing quality health services; and 10) Encourage the development of health services monitoring devices that include the assessment of quality health care as well as quality medical care.
Chapter VIII- Implications and Recommendations

The findings and conclusions of this study have led to major implications for the future efforts of sociologists, policy makers and health care team members.

Implications for Sociologists

This study has demonstrated four major findings: 1) Rosengren and Lefton's typology of organizational orientation to clients is an appropriate conceptual tool which can be operationalized for assessment of intra-organizational as well as inter-organizational orientations toward health care clients. 2) Inter-organizational research at the informal levels of analysis may be much more valuable than analysis at the formal levels of organizational analysis, since this study found inter-organizational behavior only at the informal levels. 3) A social-psychological methodological approach (i.e., group processes of health team processes) can be combined with the structural-comparative approach to the study of organizational behavior; and 4) that it is possible for similarities as well as variances of care systems to exist among organizations with several variables being controlled (i.e., the community's economic, political and social variables; and the size, type and accreditation of hospitals.)
Rosengren and Lefton's framework, as now operationalized could be developed into a more extensive structural-comparative study of dialysis, coronary, or any other chronic disease care system. The findings of such a study would certainly permit evaluation of health care services far and beyond the average length of patient stay which is currently being used as the measure of health care.

The conceptual framework of Rosengren and Lefton's does have the limitation of not considering the social, political and economic environment of health care providers. This present study was able to control for aspects of the health care providers' environment by designing the study within one community (Columbus, Ohio).

Other limitations of this study involved the use of the "natural field experiment" and the concatenated theory. During the process of collecting data for this study the conceptual frameworks of the "natural field experiment" and the concatenated theory were evaluated as to their research utility. The natural field experimental design did serve the heuristic purpose of providing a general organization for this study; however, it could not provide controls for 1) differences in time between the organization of renal and cardiac specialities and 2) the number of professionals involved in the dialysis and coronary care areas. In addition, the retrospective aspect of the experimental design (i.e., pre-H.R. 1) could
not adequately be reconstructed. Difficulty with the reconstruction of Pre H.R. 1 organizational behavior resulted in part because of personnel turnover and from the fact that the researcher was imprecise as to what time period prior to the implementation of H.R. 1 was to have been considered by the informants. Therefore, the data reported for pre H.R. 1’s organizational behavior reflected a time range of from the late 1960's until immediately before the implementation of H.R. 1.

The concatenated theory (see Chapter II) which considered environmental factors, (e.g., other organizations, H.R. 1 legislation, Joint Commission on Accreditation of Hospitals, J.C.A.H.) and internal organizational structure, organizational incentives, organizational professionalization, organizations' inservice educational programs, and client characteristics was revised to a heuristic model (see Figure 14) which specifies the inter-relationships among the "independent variables."

It is impossible to demonstrate with the data collected by this study all the forces involved in the degree of health services (i.e., comprehensive care) provided, however, some of the conditions associated with its variation can be identified.

The environmental variable will not be defined, but will be described. It is extremely complex because there are factors that inter-relate within the environment itself. Governmental legislation
Figure 14

Proposed sociological model of variables, their interaction and impact upon health services
and other legal authority can be considered major factors in the health care providers' environment. The Medicare legislation might be assumed to be a major variable in this particular aspect of the health providers environment. However, Medicare is just one of the regulating elements. Somers reports that:

>a recent listing by an official of the American Hospital Association identified sixty-eight different hospital programs or facilities affected by direct governmental control. . .The A.H.A. study listed sixteen different federal agencies involved in hospital regulation of one sort or another, nine state governmental bodies typically involved, and twelve local government bodies. (Somers, 1969:171)

The courts have begun to insist that hospitals have a responsibility to enforce proper medical standards. The precedent of judicial immunity to charitable organizations was broken with the Darling v. Charleston Community Hospital (1965) case. In addition, at present there is much judicial activity with medical malpractice suits. Thus, the courts have become a potent environmental force for health care providers.

Other non-governmental organizational bodies that have an environmental impact upon health care providers include the Joint Commission on Accreditation of Hospitals, (which itself is composed of various professional bodies) and the numerous specialized accrediting bodies such as the: American Medical Association, Association of American Medical Colleges and the National League for Nursing.
In addition, to the governmental, courts and non-governmental agencies, the health care providers' environment also consists of: 1) an increasing number of consumer coalitions such as the Medical Committee for Human Rights and Health Policy Advisory Center (Health PAC). 2) Large third-party payers. 3) Dominant health care providers, such as university hospitals or hospitals connected with influential community leaders; and 4) changes in medical technology.

Thus the environmental context of health care providers is very complex and needs considerable research efforts to better specify the interaction among its various components. As an ad hoc observation, it would appear that some of these factors are counter balancing each other while others such as certain health care legislation and J.C.H.A. appear to be supplemental forces. While the 'environment' of health care providers is difficult to operationalize it has become a salient factor in organizational research since organizational researchers have started considering the validity of modern open-system theory.

* See Georgopoulos 1972: 10-14 for a review and significance of modern open-systems literature.
As presently modeled, environment has both a direct and indirect effect upon the degree of health care services. The indirect effect operates through organizational leadership (which in part may be a component of the environment*), internal organizational structure and the kinds of work and work processes.

The leadership component of this model may be considered both as a process and a structure. The earlier discussions (Chapter VII) have noted a tendency for health care manpower to be organized in a hierarchial arrangement with the physician at the top of the hierarchy. This tendency in part can be the result of the assumed degrees of professionalization of the various representatives of the health care disciplines. Another contributing factor to the hierarchial arrangement of health manpower may be related to the sexual composition of the various professional groups. ** Leadership can include not only health professionals responsible for providing direct patient service, but also the administrative segment of the organization. (The administrative segment can also be considered a part of the internal structure of the organization.) In addition, the internal structure of the organization can have an impact upon both leadership components (i.e., structure and process). Thus environment

* A unidirectional flow between environment and leadership is assumed because involved practitioners typically do not have time available to be actively involved in the organization environment.

** Discussed in Chapter VII
has an impact upon leadership and leadership in turn has an impact upon the degree of health services provided.

The internal structure, which includes the administrative segment, in turn has an impact upon the leadership component and the kind of work and work processes because of its capabilities to provide or withhold rewards. The reward structure in nursing service and nursing's implicit rewards based upon the educational content of its in-service education programs are particularly salient because the nursing service department of a hospital is typically the only department that works twenty-four hours, seven days a week. Thus if nursing services-reward structure is not set to maximize comprehensive care then one of the facilitators* to quality care is absent. Other aspects of the internal structure could highly encourage interdisciplinary behavior (i.e., health care team) by making health care team approaches to client care an explicit goal. (It is significant to note that if health care team approaches were explicit goals of the organization, then environmental factors such as federal regulations and J.A.C.H. would not have to apply their pressures for health care team requirements.)

In other words, if the internal structure would change, then the relationship between environment and internal structure would also change.

* Discussed in Chapter VII
The kind of work and work processes is more directly related to the internal organizational structure than to the consumer (i.e., the client). It would appear that the client might be a more potent force when the health care team is operating effectively. If the health care team is operating effectively the clients would be less likely to adopt the sick role obligation and would be more likely to be a mutual participant in their care. Otherwise the consumer, or an individual, generally does not have much power to alter the health care services.

Consumers as coalitions (e.g., Medical Committees for Human Rights and Health P.A.C.) have demonstrated that consumers can have an impact upon health care services. Unfortunately, the consumer coalitions do not emerge frequently and when they do emerge they are often found in eastern metropolitan areas. The consumers of health services as constituents of legislators also have an indirect effect on the environment. Legislators have encouraged participation of consumers in health planning, however it appears that the consumer representatives are easily co-opted by the health professionals.

Additionally, the legislators have tried to enhance health services by certain monitoring devices (i.e., utilization review and P.S.R.O.). However, the development of certain aspects of these monitoring devices has been delegated to health care providers. The
health care providers have developed instruments and procedures for determining medical justification for hospital admission and for average lengths of patient stay for categorical discourse processes.

These monitoring devices fall considerably short of assessing the quality of health care services. It would appear that the internal structures of the health care providers and the environment of the health care providers would do well to concentrate their efforts towards developing quality health care monitoring devices. It would also appear that social scientists could certainly make a contribution in the development of instruments to assess quality health services.

In conclusion, it is recognized that this proposed model (figure 14) still needs elaboration, particularly the environmental component; however, the model can serve as a heuristic device for future health care research efforts.

Implications for Policy Makers

Federal Legislative intent of H.R. 1 (i.e., the removal of financial barriers to care) has resulted in five unintended consequences: 1) Bureau of Vocational Rehabilitation is currently minimally involved in providing services to end-stage renal disease clients. 2) Some social workers who were previously in client care are no longer involved because their major role had been perceived as financial assistants. 3) Community funds
and other funding sources perceive Medicare coverage to be one-
hundred percent and therefore resist providing financial
assistance to families.

4) There is now a huge transportation problem for persons requiring dialysis therapy. This can be
related to two observations: (a) there is a lack of properly trained manpower in rural areas and in public health nursing departments
(public health nurses could assist families with home dialysis), and
(b) there is a lack of commitment on the part of rural health facilities because of the expensiveness of dialysis units. This
observation may relate to the low numbers of people involved with end-stage renal disease or to rural health facilities' past experiences
with the expense (trained manpower and hardware) of coronary care units; and
5) the removal of financial barriers to care has brought health care providers and ultimately legislators into direct
confrontation with quality of life questions. For example there are dialysis patients in Columbus, Ohio who's life goals have been
reduced to going to treatment centers for their next dialysis treatment.

Policy makers should also make three other observations regarding the implementation of H.R.1. That is, policy makers should know
that by just stipulating that certain health professionals be a part of dialysis does not mean that these professionals will function
as an effective team providing comprehensive care. In addition, policy makers should come to recognize that utilization reviews
and P.S.R.O.'s are using average lengths of patient stay as their only measurement of quality health services.* Finally, policy makers should encourage the development of indicators of quality health care, other than average length of patient stay.

Implications for Health Care Team Members

Health care team members should become aware of the consequences of applying the term theory model of medical care (i.e., diagnosis, treat, cure) to chronic maintenance clients. It should behoove health care professionals to recognize that chronically ill individuals cannot be cured and that because of the patient's illness process new goals and organizations for care need to be applied to these clients. Health professionals need also to recognize that specialization in services has fragmented those factors previously found in the conceptualization of the "kindly family doctor." If these factors are not re-integrated through an effectively functioning health care team, health care team members can contribute negative social consequences which compound the patient's poor physiological state. Fragmented approaches to patients and their families (as we discussed in Chapter VI) result in the patient accepting the "sick role obligation." The patient thereby becomes a socially dependent personality with low self-esteem, particularly if role reversal of spouses has

*See Chapter VII for a discussion of both of these observations.
occurred in the family.

It is significant to note that of the seven health care "teams" studied in Columbus, Ohio only one arrangement of health care professionals was functioning in a team manner.

Additionally, health care team members need to acquaint themselves with the barriers and facilitators to comprehensive care (organizations' lateral and longitudinal orientation to clients)—remove the barriers and enhance the facilitators. For purposes of the reader's convenience the facilitators and barriers to comprehensive care will again be summarized:

Barriers to Comprehensive Care:

1) Professional education and orientation to health care team approaches.

2) Difficulty in working with diffuse tasks and role ambiguities.

3) Lack of a perceived common health care goal by the health care team.

4) Instability of health care team membership.

5) Patients tendency to adopt a "sick role" obligation due to the structure of health services.

6) Primary care organizations unawareness of outside agencies' services.

7) Lack of client advocacy.

8) Narrowly defined selection criteria of outside service agencies
9) Low commitment by agencies to patients with categorical disease processes which account for a small proportion of the agencies' total caseload.

Facilitating Actions to Enhance Comprehensive Care

1) Encourage more of a commitment on the part of medical education programs for educating the "social physician".

2) Work toward removal of factors contributing to the "submissiveness of non-physician health professionals.

3) Change the reward structures of health care organizations to maximize the provision of comprehensive care.

4) Facilitate health care teams' effectiveness by including an active research consultant during the team's formation process.

5) Facilitate stability in the team's membership.

6) Encourage frequent team meetings.

7) Provide client advocate.

8) Provide a client referral monitoring device as described by Demone (1974).

9) Alter the health service providers' inherent reward system from processing numbers of people to providing quality health services; and

10) Encourage the development of health services monitoring
devices that include the assessment of quality health care as well as quality medical care.

Summary

This chapter has reviewed the major implications and recommendations of this study for sociologists, policy makers and health care team members. For sociologists, this chapter contains a summary of the heuristic value of expanding Rosengren and Lefton's typology of organizational orientations to clients to include both intra as well as inter organizational variance in orientations; and presents a model depicting the inter-relationships of six variables relating to the provision of health services. This chapter, additionally, has identified difficulties in implementing PL 92-603 and fine unintended consequences of H.R. 1 for federal policy makers. Finally, this chapter has summarized major barriers to the provision of comprehensive health care and major facilitating actions to enhance the provision of comprehensive health care.
This is an announcement of a research project, "Kidney Therapy and Public Policy", to be conducted by Richard A. Rettig, Associate Professor of Public Administration, Ohio State University. This project has been funded by the National Science Foundation's RANN program (Research Applied to National Needs) for the period from July 1, 1973 through September 30, 1975.

The purpose of the project is to study the role of the Federal government in the provision of therapy to victims of end-stage kidney failure. Two therapies will be considered: hemodialysis via use of the artificial kidney; and kidney transplantation.

One part of the study will deal with the development and implementation of Section 299 I of the Social Security Amendments of 1972, the provision which extended Federal financial coverage for end-stage kidney failure to an estimated ninety percent of the American people beginning July 1, 1973. This historic legislation, estimated to cost $135 million or more in Social Security Trust Funds in its first year, is being watched carefully by many parties because of its implications for other forms of national health insurance.

There are three other major aspects of the research project. First, an analysis will be made of the contributions which Federal government-supported research and development efforts have made to the clinical development of dialysis and transplantation. Attention will be focused mainly upon the National Institutes of Health and, in particular, the National Institute of Arthritis, Metabolic, and Digestive Diseases and the National Institute of Allergy and Infectious Diseases. Both research grant and research contract programs will be studied.

Secondly, the project will look at the efforts by the Department of Health, Education, and Welfare and by the Veterans Administration to stimulate the spread of these therapies into medical practice. Analysis will be made, for example, of the grants and contracts made by the H.E. W.'s kidney disease control program for the demonstration of center dialysis, home dialysis, and
limited care dialysis, as well as those related to organ procurement and pediatric nephrology. Furthermore, the study will consider the policy and program development within the V.A. related to the provision of both dialysis and transplantation.

The remaining aspect of the study will be an analysis of the organization of dialysis and transplantation in six communities, with attention on the division-of-labor and patterns of cooperation among the local medical care institutions.

The six communities which will be studied are: Seattle, Washington; Minneapolis-St. Paul, Minnesota; and Cleveland, Columbus, Cincinnati, and Toledo, Ohio. This portion of the study may be extended to state governments and other communities if feasible.

The results from this project are expected to fall in two categories. A good deal of information and analysis will be developed regarding the full cycle of a particular medical innovation—kidney therapy—as it moves from initial stages of research through clinical experiment to accepted therapy and then to wide-spread adoption by the medical community. In addition, a more generalized view of medical innovation will be analytically developed, with special reference to those innovations where the technology of the therapeutic advance requires substantial organization change for adoption.

Results will be reported in brief topical papers, semi-annual presentations in Washington, D.C., in scholarly and academic articles, and in a book-length manuscript.

Rettig, the Principal Investigator, is being assisted by Mr. Thomas C. Webster, Research Associate, a Ph.D. candidate at Ohio State University, and Miss Ruth C. Douglas, Consultant, formerly with the Library of Congress, Washington, D.C., and instructor at the Northern Virginia Community College, Alexandria, Virginia. (Ms. Greene joined the project after July 1973.)

Questions concerning the project may be addressed to:

Professor Richard A. Rettig
Division of Public Administration
College of Administrative Science
The Ohio State University
1775 South College Road
Columbus, Ohio 43201
614 (AC): 422-4941
The project will be very happy to receive information related to this subject from any interested party. Publications, position papers, and memoranda which pertain to any aspect of the project will be greatly appreciated and will be treated with the confidentiality requested by the sender.
APPENDIX B

Hospital Administrator

Dear

The purpose of this letter is to introduce Ms. Connie L. Greene and to request your approval for her to conduct research in your organization. Ms. Greene is a registered nurse and a Ph. D. candidate in sociology here at Ohio State University. She is also a research associate on the National Science Foundation supported research project, "Kidney Therapy and Public Policy," of which I am principal investigator. (A brief description of this project is attached.)

The proposed research by Ms. Greene will be directly related to her Ph.D. dissertation and will also be a contribution to our project. The immediate purpose of her study will be to identify health services available in Columbus for patients involved in chronic maintenance therapy, particularly patients with end-stage renal disease and post-coronary care patients.

The study will involve several weeks of observation and discussion with members of the various health disciplines within your organization. When formal interviews are needed, Ms. Greene will arrange them at the convenience of these professionals. The contact may at times be intermittent and at other times continuous, and will terminate by approximately the end of April 1975.

Specific members names and your institution itself will remain anonymous in the content of the written report.

If you are willing to assist us, a copy of the report will be made available to you when it has been prepared for distribution.

Sincerely,

Richard A. Rettig
Associate Professor of Public Administration and
Project Supervisor
APPENDIX C

INTERVIEW RECORD

<table>
<thead>
<tr>
<th>Organization</th>
<th>Number of Personnel</th>
<th>Positions Interviewed</th>
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<tr>
<td></td>
<td>Organizations' Super or Supportive Structure</td>
<td>Clinic Area</td>
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<td></td>
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</tr>
<tr>
<td>D</td>
<td>N=35</td>
<td>8</td>
</tr>
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</table>

In addition, one interview was done with a representative of the local Social Security Administration office; two interviews were done with representatives of the Bureau of Vocational Rehabilitation; one interview was done with a representative of the Kidney Foundation; one interview was done with a representative of the Central Ohio Heart Association; and two interviews were done with mental health consultants.

*Some personnel positions overlapped and some personnel were interviewed more than one time.*
Drug Bank Price Sheet

Kidney Foundation of Central Ohio, Inc.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Formulation</th>
<th>Cost per 100's</th>
</tr>
</thead>
<tbody>
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<td>Aldactone</td>
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</tr>
<tr>
<td>Aldomet</td>
<td>500 mg Tablet</td>
<td>$ 7.50</td>
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<td>Cytoxin</td>
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<td>Dilantin</td>
<td>100 mg Capsule</td>
<td>$ 1.75</td>
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<td>Diuril</td>
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<td>$ 5.40</td>
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<td>Folic Acid</td>
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<td>Gantrisin</td>
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<tr>
<td>Ismelin</td>
<td>25 mg Tablet</td>
<td>$ 13.00</td>
</tr>
<tr>
<td>Kaon</td>
<td>1 Qt. Liquid</td>
<td>$ 8.20</td>
</tr>
<tr>
<td>K-Lyte</td>
<td>25 mg Tablet</td>
<td>$ 12.30</td>
</tr>
<tr>
<td>Lasix</td>
<td>40 mg Tablet (Furosamide)</td>
<td>$ 8.35</td>
</tr>
<tr>
<td>Methenamine Mandelate</td>
<td>500 mg Tablet (Wolin) (same as Mandelamine)</td>
<td>$ .85</td>
</tr>
<tr>
<td>Nitrofuradantoin:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furadantin</td>
<td>50 mg Tablet</td>
<td>$ 8.25</td>
</tr>
<tr>
<td>Macrodantin</td>
<td>50 mg Tablet</td>
<td>$ 11.30</td>
</tr>
<tr>
<td>Penicillin G</td>
<td>250 mg Tablet (400,000 Units - Wolins)</td>
<td>$ 1.50</td>
</tr>
<tr>
<td>Drug</td>
<td>Formulation</td>
<td>Price per 100's</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Phosphajel</td>
<td>(12 oz. Bottles) Liquid (12 bottles per case)</td>
<td>$16.25</td>
</tr>
<tr>
<td>Prednisone: Regular</td>
<td>5 mg Tablet (Wolins)</td>
<td>.85</td>
</tr>
<tr>
<td>Prednisone: Upjohn</td>
<td>5 mg Tablet (Deltasone)</td>
<td>1.85</td>
</tr>
<tr>
<td>Tetracycline</td>
<td>250 mg Capsule (Sumycin by Squibb)</td>
<td>4.25</td>
</tr>
</tbody>
</table>

Due to rapid increases in the cost of medication, the drug prices on this list are subject to change without notice.

Revised 1-75
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