Planning for Comprehensive Health Care at Temple University Hospital

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THE HEALTH SCIENCES CENTER of Temple University in Philadelphia consists of schools of medicine, dentistry, and pharmacy, the College of Allied Health Professions, and Temple University Hospital. These five major units are a "center" in more than a geographic sense. They are a center in the sense of that dynamic equilibrium resulting from a balance between forces. Centripetally, we in the Health Sciences Center realize we exist to serve the needs of society and that such needs can no longer be served by traditional roles filled by traditional manpower armed with traditional knowledge. The needs of the 20th century require the coordination and cooperation of inquiry and learning as well as of action. Centrifugally, we encourage those new functional divisions which enable depth of experience and primacy of responsibility. As a center of equilibrium, we have planned together, assisted by the firm of Wallace, McHarg, Roberts and Todd, as we broadened our interests from biology to biography—from the facts of life to the quality of living.

We cannot present a comprehensive review of the entire planning process here. Suffice it to say that the exercise of "enlightened self-interest" is an arduous and exhilarating task. Fully 5 years were spent in developing goals and objectives, philosophies and policies, and conceptualizing alternative organizational and physical patterns. The end product of these labors was not a building, but a program—a working guide to trustees and staff, administration, and architect.

The following are five, from among many, key areas which have been both guide and gauge to our planning: the changing concept of health, university involvement in health service, the university hospital, manpower and productivity, and economies of scale.

The Changing Concept of Health

If there had been any lingering doubts about changing concepts of health, the legislative programs of the 89th Congress should have dispelled them. That health is a basic human right is no longer a matter for professional and public debate. It is a fact, and we must plan within its context and act to fulfill its content. A sound mind, in a sound body, in a sound family, in a sound environment is the goal for every individual, and no less will do. Prof. Richard

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Titmuss (*1*) summarizes this new ecology as follows:

> This blurring of the hitherto sharp lines of demarcation between home care and institutional care, between physical disability and mental disability, between educationally backward children and so-called 'delinquent' children, and between health needs and welfare needs, is all part of a general movement toward more effective service for the public and toward a more holistic interpretation and operational definition of primary, secondary and tertiary prevention. On a broader plane, society is moving toward a symbiosis which sees the physician, the teacher and the social service professionals with common objectives.

Contributions to health and provision of health services clearly extend far beyond the bounds of any one discipline or any one agency, be it public or private. Planning for the role of the Health Sciences Center, or that of its hospital, thus necessitated a process of planning with other disciplines and other institutions, with neighborhood groups as well as national bureaus, with urban renewal as well as health departments.

In addition to those disciplines most readily identified with health services (medicine, dentistry, nursing, physical therapy, and so forth), we brought to bear the insights of the social sciences. The multidisciplinary approach to planning has been advantageous not only by introducing new problem-solving services, but also, and more fundamentally, by helping to reconceptualize the problems themselves. The medical sciences generally deal in terms of "disease" models, that is, in curing through removing causes. The social sciences, dealing in "behavioral" models, have given us much insight into the implications for health of modifying the behavioral response to causes.

The traditional, and often arbitrary, distinctions between public health services and personal health services are even now anachronistic. Therefore, we have worked intimately with our city health department in a mutual effort at redefinition, realinement, and redistribution of function and personnel. There is substantial truth in the often-repeated observation that the medical schools have the knowledge, the hospitals have the technology, the health departments have the mandate, the medical societies have the organization, and the welfare departments have the philosophy. To this list we have added the school district, the city planning commission, the department of licenses and inspections, and others. We have sought the partnership of all, for without it our planning would lack professional vitality and political reality.

University Involvement in Health Service

As we evolve our urban analog to the land-grant college, we must take a new and bold look at the "three-legged stool" of education, research, and service. To be sure, schools of the health professions and hospitals have an abiding interest in each. Nevertheless, a university's interest must be qualitatively different, and this difference relates most fundamentally to the nature of education and service. First, why does pedagogical activity exist at all? "Why is it an occupation and a preoccupation of man? To these questions the romantics gave most brilliant, moving, and transcendental answers, in which they drew upon all things human and a good portion of the divine" (*2a*). We are occupied and preoccupied with education for a reason which is ". . . simple, bald, and devoid of glamour; in order to live with assurance and freedom and efficiency, it is necessary to know an enormous number of things, and . . . [we have] . . . an extremely limited capacity for learning. Scarcity of the capacity to learn is the cardinal principle of education. It is necessary to provide for teaching precisely in proportion as the learner is unable to learn" (*2b*).

Our science of teaching, then, is based upon the humble realization that the student cannot learn all that we would like him to know. Therefore, we set priorities and initiate a lifetime of continuing learning. As knowledge becomes more complex and exacting, so does the educational response of distillation, integration, and transmission. This is the primary mission of the university, and it is a primary mission peculiar to the university. Research, in this context, is the process wherein this fund of society's knowledge is increased and validated.

For service, the principles of economy which define education are reversed. The capacity to absorb service far exceeds our ability to give service. Therefore, a new order of priorities and economies must prevail. If the educational system proceeds from the dimension of the stu-

dent, the service system must proceed from the dimension of the consumer. In large measure, but by no means exclusively, the problems of service help to define the priorities for education; they also influence the priorities of research.

An awareness of the principles of economy of service, then, is integral to the very purposes of the university. An involvement in the problems, planning, and provisions of service, however, has usually been only of secondary interest. It should be recognized that service qua service is neither the primary nor the exclusive mission of the university. Taking health services as an example, what then is the appropriate involvement of the university?

At the Health Sciences Center we have made two fundamental observations toward a definition:

1. Other instrumentalities of our society have as their primary mission the direct provision of health services. The health department, the community hospital, and the private practitioner are recognized by law and tradition for having primacy of service interest.

2. It is patently impossible to pursue, with equal vigor and concern, the separate courses of providing service and objectively criticizing the basis, form, content, and effectiveness of that service. While the passion of involvement and the dispassion of criticism are both essential in health services, the resources for one are not the same as the resources for the other.

Thus, we conclude that a university's involvement in service must be reciprocal to that of the community agents of service. To state the matter in its baldest terms, the community hospital has as its client the individual patient; the university does not. Rather, the client for the university is the community hospital, the health department, the private practitioner, in fact, society itself. To the community hospital, service is the unit of output; to the university, it is a unit of input. The university seeks ever-widening opportunities in service because that is how it learns what to teach and whom to teach.

What are the health problems of society? What are rational priorities for services? What are the manpower requirements? What technology is needed? What organizational forms and financing mechanisms are valid? How effective are the alternatives? What social policies and legislative programs have to be modified? These are the questions for the university—explorations and answers and evaluations require an involvement in service.

The University Hospital

While some involvement in health services is integral (albeit secondarily) to the mission of many parts of the university—the Health Sciences Center, the schools of business, education, law, liberal arts, and so forth—service forms the primary mission for only the hospital. A hospital to be a hospital—and even a very good hospital—need not be involved in education or research, as we have used the terms. But we are concerned with a special kind of hospital—one which through service demonstrates new approaches for the primary agents, institutions, and professions.

To enable the university hospital to fulfill its mission of analysis, conceptualization, demonstration, and evaluation, it was necessary to recognize the hospital as related to, but independent of, the primary mission of the school of medicine. Each of the deans of our professional schools accepts that the end product of professional education is technically competent, intellectually enlightened, and socially aware manpower. They also accept that the forms of professional practice and the settings within which they occur will be varied and continually changing. A clinical relationship to a single hospital was seen to be clearly inadequate for student experience in a breadth and diversity of models.

In a programmatic sense, therefore, the Health Sciences Center was planned to include a variety of clinical models through extensive and judicious affiliations. Several community general hospitals and three specialty hospitals, unified in the commitment to excellence, joined our partnership of program. This also enabled us to increase markedly student enrollment without increasing the size of the university hospital and without deterring it from pursuit of its primary mission.

Our university hospital, then, belongs not to the school of medicine, nor even to the schools of the health professions. Rather, it belongs to

the totality of the university as a principal health laboratory for involvement in the community problem-solving process.

Manpower and Productivity

In recent years there has been an exponential growth of concern for the "health manpower shortage." New Federal legislation, governmental bureaus, commissions, and studies have all been directed at the problem. As stated by Fein (*3a*):

> Obviously a direct and important contributor to the level of health of the population is the availability and utilization of medical services. . . . Various kinds of medical manpower, including physicians, provide those health services. The link between manpower and services is close, but if our interest is in services—and, surely, if it is in health—we cannot focus simply on manpower. Technology is changed, capital equipment is modified, new discoveries are made, and new organizations for the delivery of services are created. All these may alter the relationship between the 'input' called the physician and the product he delivers: the health service.

The very nature of the changing relationship between inputs of manpower and outputs of service has been central to the planning of the Health Sciences Center. Our goal, and that of our region and the nation, is to increase the availability of those services and conditions which enhance health and well-being. A mere increase in professional personnel, no matter how well-educated they may be, will not, of itself, achieve this goal. Therefore, we have attempted to look critically at matters of utilization, organization, and productivity.

The following are six basic and distinct methods by which limited health service resources possibly can be made more optimally productive and available.

1. The numbers of physicians, dentists, and other professional manpower might be increased. A greater national pool of professional manpower would add to the total availability, although it might not affect local supply.

2. The numbers of nonprofessional, but skilled, manpower might be increased, thereby freeing the professional from performance of lower level tasks.

3. The technology available to the practicing professional might be advanced, thereby enabling the individual to perform more units of service. The high-speed drill, for example, has assuredly increased the productivity of the dental practitioner.

4. The organizational forms and administrative patterns within which practice occurs might be adjusted. The institutionally based office location, for example, would save nonproductive travel time for the practitioner.

5. The actual redistribution of professional services to areas of low availability, and, by implication, away from areas of excessive utilization, would in effect rationalize productivity.

6. A program of health education might alter public behavior in using services and could increase the participation in "preventive services" by mothers and wives, school teachers, and housing inspectors.

The professional, economic, and social implications of these alternatives are profound. In a real sense, we are but a microcosm for national decision making. After several years of intensive study, we decided to undertake all six methods. The program of the center, particularly the functions and form of its hospital, reflects this decision.

Economies of Scale

In translating the many program concepts into an organizational form, we have been guided by considerations of size and number. Recognition that resources are limited necessitates that whatever scale is chosen must be rational and economic. According to Fein (*3b*):

> It is often found that larger organizational units are able to achieve economies that are denied to those of smaller size. These 'economies of scale' result from the fact that certain divisions of labor and specialization are made possible and justified when the number of units produced—or services rendered—is sufficiently large. Furthermore, various types of equipment and kinds of personnel are often available in 'lumpy' units—one can't buy half a machine or readily hire half a person. Thus such equipment and personnel are used more efficiently in larger-size production units. Therefore, as the scale of operations increases, economies arise in part as the result of opportunities for greater division of labor, more extensive specialization, use of special equipment and personnel.

In addition to the obvious application of the principle of economies of scale to determination of size of student enrollment, or size of hospital,

we applied the principle throughout the entire planning process.

Four examples follow in which the tools of economic analysis enriched the decision making of the educator and the clinician.

1. Within the Health Sciences Center itself, the relatively "small scale" interests of each unit in educational programs at the baccalaureate level were "uneconomic." We have aggregated these programs and added to them, under a new College of Allied Health Professions. In addition to medical technology, physical and occupational therapy, and medical record science, we have included nursing.

2. The curriculum interests of the school of medicine converged with the service interests of the hospital and research interests of each in the diseconomies of scale inherent in the traditional departmental form of organization. A new concept of economic aggregation emerged in the "program area."

Four major programs have been defined thus far: (*a*) musculoskeletal (orthopedics, rheumatology, and physical medicine), (*b*) neurosensory (neurology, neurosurgery, ophthalmology, and otolaryngology), (*c*) growth and development (obstetrics, pediatrics, genetics, and behavioral science), and (*d*) cardiopulmonary (cardiology, thoracic surgery, pulmonary physiology, and vascular surgery).

3. Joint programing with affiliate hospitals has extended beyond arrangements for clinical education. A formal organization of Temple University in partnership with affiliates has been formed to integrate as well as coordinate service endeavors. Through the North Philadelphia Regional Health Affiliates, Inc., new economies of scale for all hospital services—both professional and supportive—have been introduced on a subregional basis. The diseconomies, inherent in any unit becoming too large, will thus be avoided.

4. The university hospital itself, drawing upon independent analysis and the growing

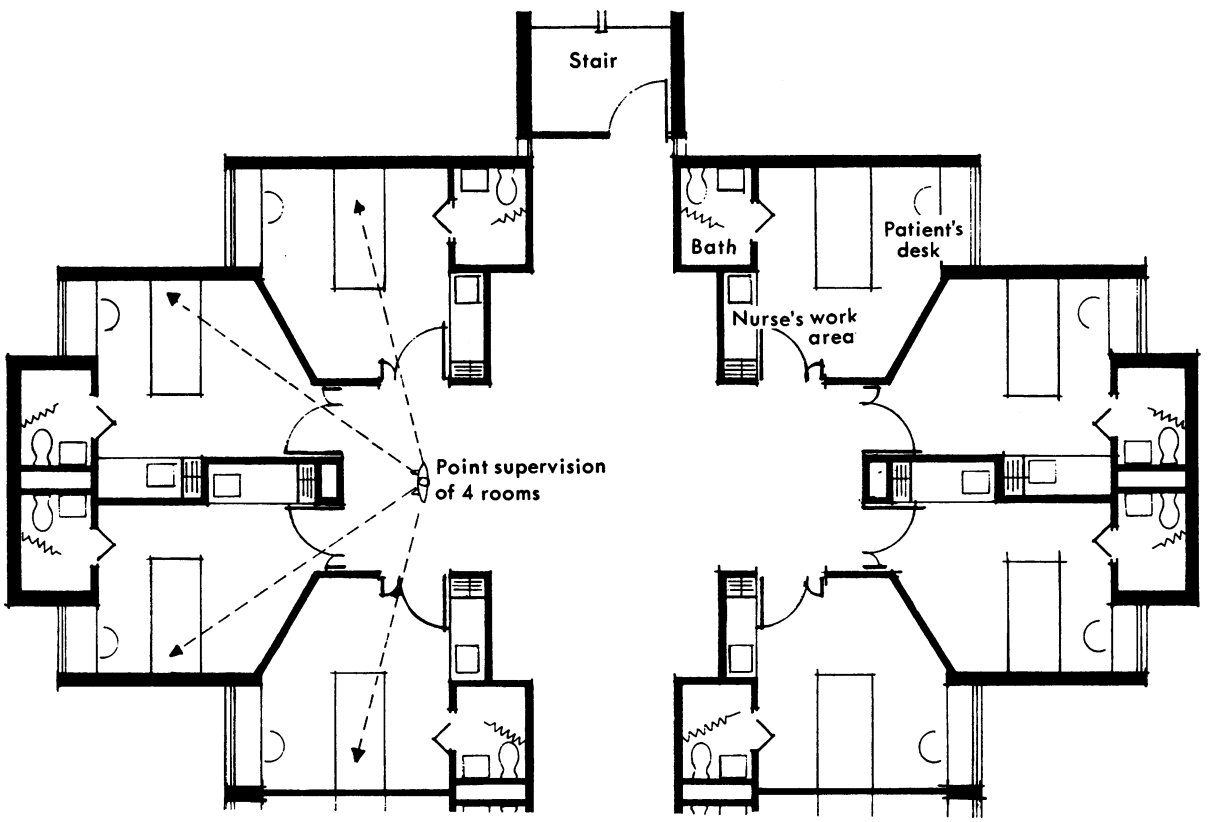

Figure 1. Typical 4-bedroom module with 8-bed cluster, Temple University Health Sciences Center

body of evidence from California to New York, has organized hospital staff practice for economies of scale. A group practice form of medical practice is essential if professional rewards and patient satisfaction are to be sustained and enriched by economic feasibility. While the precise nature and form of these groupings are not determined, their scale will be economic.

Principles Reflected in Hospital Design

Architects can begin to design only after the institution's philosophy is clarified. They must understand the goals and objectives of the university, its Health Sciences Center, and the hospital itself, defined in relation to the community, the region, and society as a whole. Only through a critical and analytical examination of functions to be performed in the future can we break the bonds of inertia holding us to the past. Only if we believe there must be a better way can we escape the fate of living with "more of the same."

We are fortunate to have had responsible university officers and trustees who provided substantial financial and moral support for centerwide as well as for building-specific programing and planning. We are now working with a group of architects, led by the firm of Stonorov and Haws, who believe that design is a creative partnership involving intellectual exchange with clients. We are using Hermann Fields' "method of successive approximations," confident that our ultimate solution will project not more of the same, not the past, but the future.

As we have already established in the organization of the Health Sciences Center, the hospital's primary function is service. By definition, a hospital has no alternative; yet numerous planners have ignored the primacy of the patient and designed university and other hospitals around student, staff, teachers, departments, or researchers and their animals. Medicare legislation, the precedents of the Darling case in Illinois, and other judgments establish the patient's right to quality care. Those hospitals which still use, abuse, harass, or ignore the patient's legal, moral, or ethical rights do so at their own risk—a new freedom of choice permits patients to take their business elsewhere.

Inasmuch as we give primacy to the patient, our consideration of design begins with an analysis of patient accommodations. The ward and the multiple-occupancy room are carried over from medieval models. Surely now is not too soon to break such a tradition. Our four-bedroom module with eight-bed cluster of single-occupancy rooms reflects our commitment to universal, uniformly high-quality care for all (fig. 1). Privacy for both patient and visitors, freedom from the annoyances that roommates and their diseases, treatments, habits, guests, radios, and cigars would impose, and ease of providing care are part of the design. The view and the cabinets on the far wall belong to the patient. The easily accessible workspace and utilities on the corridor side are for the convenience of the patient care team.

The four-bedroom cluster is economical of outside wall and saves nurses' footsteps. Unlike the conditions in a single-loaded or double-loaded corridor, our nursing unit nascelles give the nurse line-of-sight contact with eight patients at an energy expenditure of only a few steps. Individual accommodations make possible a higher rate of occupancy because sex, age, diagnosis, and condition of the patient need not affect room assignment. Occupancy rate can be improved further if the admitting physician and the institution, rather than the department, control room assignment. While accepting the inevitability of change, we cannot predict specifics and must, therefore, retain flexibility of assignment.

This flexibility is inherent in our program's floor concept. Projected bed needs for each department were carefully analyzed by James J. Souder and associates at Bolt, Beranek and Newman, who examined our records and introduced our past experience into their computer. Traffic patterns in our hospital were also examined, and this information, which reflected inter-relationships between departments, patients, and staff, was fed into a computer.

Surprising information came to light. The extent to which patients were moved from patient floors to other areas or floors for diagnosis or treatment creates traffic problems and consumes many hours of staff time. The time used by both professionals and nonprofessionals in moving from one task to another represents a

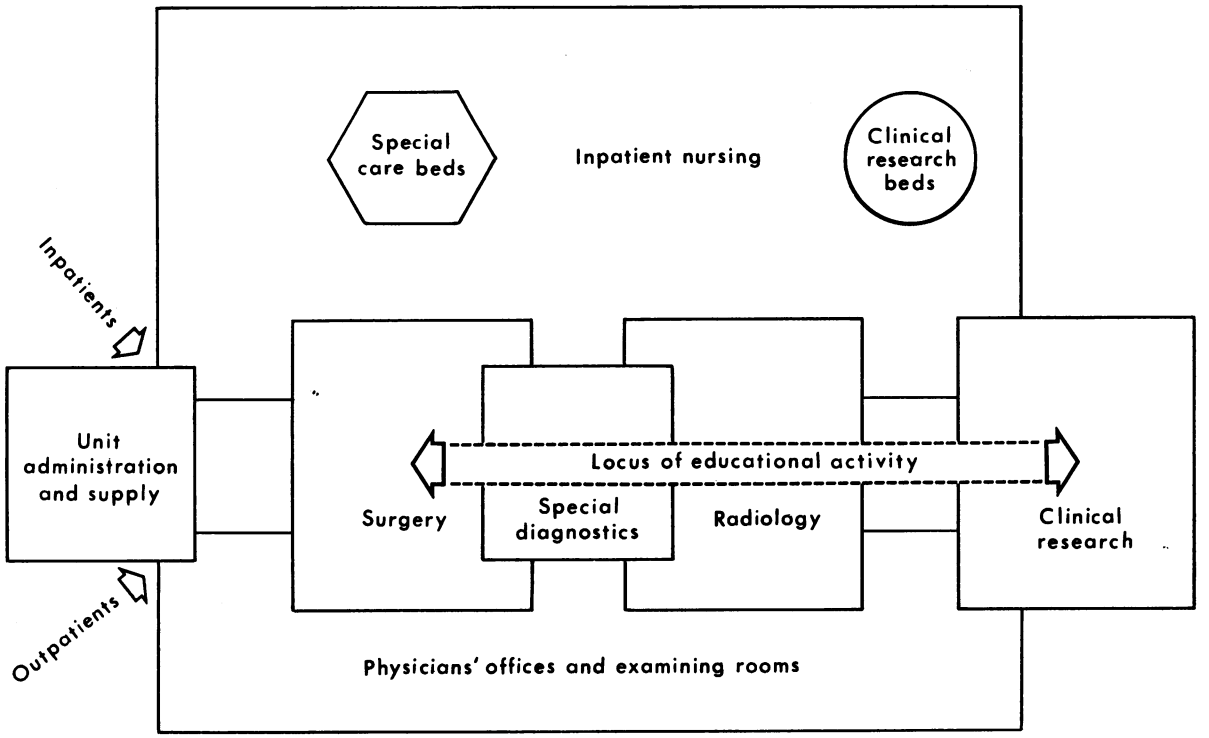

Figure 2. Diagram of the functional content of the core concept, Temple University Health Sciences Center

loss of money and productivity to the institution. Happily, the studies revealed a repetitive pattern of movement which can be obviated by more appropriate location of functions. This information is now available for use as a computer model to simulate the effect of various arrangements and re-alinements as we proceed in the design phase. As home builders have been able to design functional kitchens to save steps for housewives, so should we be able to arrange constellations of activities to minimize travel for hospital personnel.

From another point of view, the clinical faculty and curriculum committee of the medical school sought to identify appropriate groupings of departments to improve teaching and encourage maximum interchange of knowledge in related fields. Benefits will accrue to the professionals involved, their students in all categories, and, most important, their patients.

The floor concept (fig. 2) reflects the amalgamation of the two methods of analysis, the computer and the human brain. The patient with a neurological or sensory problem will likely require the services of either a neurologist, a neurosurgeon, an ophthalmologist, an otorhinologist, or more than one of them. The specialists, in turn, rely heavily on each others' knowledge and advice. Why not bring them together with their patients? Naturally, they need specialized diagnostic and treatment hardware and other experts to complement their skills. Thus, specialized operating rooms; anesthesiology, radiology, and audiology suites; and physiological laboratories are also located on the floor. Economy of scale dictates a critical mass of each, resulting logically in large horizontally deployed patient floors rather than small, inflexible tower arrangements.

Change is threatening to anyone. Any attempt to alter the even tenor of a physician's life, even for the better, evokes cries of anguish, predictions of doom, and charges of socialized medicine. However, the planning process provides the arena within which old shibboleths can be re-examined. The computer-simulator helps us to test new concepts.

There was much concern about the role of the anesthesiologists on the program floor, for example. To suggest that they move from the

scene of their proved success, a large, centrally located operating room, was startling to them and to their surgical confreres. Presumably, they were being asked to break with long-established traditions for a new approach. Prevailing medical mores, after all, equate status to size of empire under one's control. Administrators establish pecking orders based on the number of beds in their hospitals, as do departments in terms of the beds they control. This, in turn, affects the number of residencies they are authorized. Medical groups pride themselves on the number of physicians on their staff, and hospital-based specialists often point with pride to the size of their bases of operations.

Status was again at issue when the subject of nurse anesthetists, technologists, and the team approach came up. Would it not be better, we were asked, if all anesthetics were administered only by fully qualified physician-anesthesiologists?

With the issues drawn, and the future of the anesthesiology department and its residency program in question, our staff spent many days in earnest discussion. Outside experts also joined the talks, and some intriguing observations were presented. For example, it became apparent that nationally, "the system" isn't working too well. Residents aren't flocking to anesthesiology, and obtaining qualified staff is a problem at many hospitals. Even more sobering was the observation by one consultant that it would take the total gross national output of all our medical schools for several years to make possible the administration of all anesthetics by anesthesiologists.

Having subjected the alternatives to rational analysis, the department itself began to describe a new and expanding role for the anesthesiologist. He is now seen as a team captain, responsible for his traditional functions, but delegating appropriate tasks to others under his supervision. Freed of activities not requiring his degree of training and sophistication, he can expand his functions. As a professional who is competent to manipulate the physiology of a patient with the assistance of pharmacological and physical agents, the anesthesiologist can work with new categories of patients and enjoy new program relationships with other physicians who need his expertise. Now moving more freely among patients and his peers on the program floors, his expanded role and sphere of influence may well enhance his ability to attract prospective residents. Real deeds accomplished, not real estate occupied, will establish his status in the future.

We have used anesthesiology as an example. However, the same degree of soul-searching inquiry was evident among radiologists, surgeons, laboratory specialists, and other disciplines. Our planning effort has not been the work of a small group. Rather, all departments, all committees, and the staff as a whole have been eager participants in our deliberations. To insure ourselves against any possible loss in the translation of medical opinion to the architects, the hospital engaged a full-time architect to work on our staff. He attends all departmental, administrative, and other planning meetings, not to present points of view, but to receive them. He then participates in meetings with the design architects to assist in interpreting the recommendations of the staff. His activities are guided by the hospital consultant, also retained by the institution itself. Together, these two experts make possible clear and effective dialog between design architect and client.

We have located patients' rooms on the periphery of our building. The shapes of people, their beds, and their bathrooms have not changed much in the past 50 years, nor do we expect any revolutionary changes in the future. However, we are aware that technology will change, laboratories will expand, new operations will be invented, and radiologists will design grander and more expensive equipment. Nuclear medicine is still growing, and the field of computer technology has no visible upper limit. No wonder we worry about future renovation and expansion within our new building! We have attempted a solution within what we call the "core" structure which was designed to accommodate change. The floor-to-floor height of the entire building was increased to permit long spans. This will create essentially open loft space, which can then be partitioned easily to accommodate the needs of any of the services. All utilities will be available at frequent modular intervals, facilitating original hookup and future change. The core areas also are geared toward future expansion. Additional buildings

projected will permit horizontal extension of the core area as well as confluence of patient care systems.

Even before this design is complete, we have begun plans for a large addition to the complex. The success enjoyed by the Skin and Cancer Hospital after moving to our campus has led two other institutions in the city to plan similar moves. St. Christopher's Hospital for Children and Wills Eye Hospital already serve as our departments of pediatrics and ophthalmology. They, we, and their patients can expect many benefits from their projected moves. In our master plan we have reserved a block of prime space to permit the new units to become a direct extension of the hospital building. Core will connect to core, and pediatrics and ophthalmology will function in the growth and development and neurosensory programs. This unification of program and physical plant offers obvious advantages. All logistical systems, records, computers, and operations can be integrated. The staff of each hospital will be appointed to the others. All patients will have available, under one roof, all the center's resources. The identity of each hospital will be preserved, but the potential of each, by virtue of this new relationship, will be vastly increased.

To minimize staff travel time, we apply the military principle of "interior lines of communications." Therefore, facilities for outpatients are located on each program floor. If every staff member is to work at his highest level of competence, then, logically, only patients who need highly specialized services and facilities should be seen on the program floors. If the patient is to be served, and the ultimate goal of medical education is to accomplish just that, then the old "clinic" concept must be abolished. We cannot afford the luxury of building "separate but equal, or redundant facilities." Patient care and treatment suites will not belong to individual departments. Rather they will be used by each, on the basis of need.

Referred outpatients will arrive by appointment, and they will enjoy the advantages of "one-stop shopping," in an area where a critical mass of staff and facilities is ready to serve their needs. Radiology, laboratories, procedure rooms, and related specialty services are all on the same floor. Because inpatients can stay in their rooms until the radiology suite or operating room is ready for them, it should be possible to work in outpatient procedures without inconvenience to others, and at great economy of time to the patients.

What have we done with the former patient who used to spend hours waiting for his fragmented and often inadequate care in the clinic? On the ground floor of the hospital, for ease of access, we have established a center for continuing comprehensive care for a defined population group of 30,000 patients. These will be patients who look to the institution for total health care. Some will pay their own way. Others will be covered by third party or government contracts. All are entitled to considerate, personalized attention on an appointment basis. For their convenience, we will divide these patients into six panels, to be assigned to each of six modules in the area. Multidisciplinary groups of primary care physicians will provide personalized care to their regular patients. Perhaps 80 or 90 percent of a patient's health problems can be handled by a multidisciplinary group. These patients will be referred to specialists on the program floors above only for necessary specialty consultations or procedures.

Many possibilities are inherent in this arrangement. Using common record systems for retrieval of information and evaluation of performance, it will be possible to set up as many as six systems of delivery of care for comparison, each with the other. Even broader evaluation can be done by studying results of care patterns being developed in two satellite neighborhood health centers funded for operation by Temple University. Elsewhere, the Office of Economic Opportunity's comprehensive centers have already done much to advance the art of caring for large population groups. We hope to expand their concepts in responding to the needs of our community. We particularly hope to develop local human resources, professional and nonprofessional, in meeting these needs as part of the university's concern for manpower.

Conclusion

To provide truly comprehensive care, we have solicited and received the support and involvement of appropriate local and State agencies, lay groups, professional societies, and voluntary

organizations. The home care component of the program, for example, will relate to the community nursing service. City health department epidemiologists, health educators, and public health nurses will work within our organization to permit us to join resources in an effort to deliver comprehensive rather than fragmented care. Naturally, dentistry and mental health programs will be included in the package.

Through a sophisticated information system, we should be able to estimate the cost, evaluate, and improve upon everything we do in each area of delivery of care. What we learn should have vast relevance to the organization of systems in the future.

With broad strokes, we have painted a picture of planning at Temple University. The sailors' dictum, says "A place for everything and everything in its place." We believe we have devised a place for everyone, where everyone will be in the appropriate place. We started with nondimensional abstractions, which related our goals to society's. Next, program concepts and needs were stated. Only then did we turn to architects as partners and collaborators in our continuous creative endeavor. The process has been stimulating and richly rewarding for all of us.

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Career Development Fellows

The Public Health Service is launching a new career development program designed to produce topflight health professionals for community health programs.

Dr. Merlin L. Brubaker, former director of the U.S. Public Health Service Hospital for leprosy patients, Carville, La., has been named director of the new program. He will also serve as principal medical adviser to the Surgeon General for the recruitment and career development of physicians and will direct the professional career development efforts of the Bureau of Health Services.

The initial group of participants in the program, which will begin in July 1968, will include returning Peace Corps physicians and other qualified candidates. Appointments as career development fellows will be made through a competitive process. The schedule, of 2 or 3 years' duration, will combine academic study with practical career experience under internationally recognized preceptors in the health field.

Surgeon General William H. Stewart, commenting on the program, said "We urgently need to develop a new kind of health professional who has the motivation, resourcefulness, knowledge, and management skills required to build and operate a health program wherever personal health services are difficult to obtain. We need them in urban neighborhoods and remote rural areas here in the United States. They are needed as well in all the developing nations."