ORGANIZATIONAL ISSUES IN THE TEAM DELIVERY OF COMPREHENSIVE HEALTH CARE

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The critical and growing problem of providing comprehensive health care to the expanding patient population is dramatized in needy communities, where the shortage of trained medical personnel is acute, and the needs of families for a variety of health and social services escalate daily. Public and private agencies are accelerating efforts to deal with this problem.

Many of these efforts involve the creation of interdisciplinary health care teams. Today HEW is actively recruiting such teams for use throughout the country. Hospitals are experimenting with different methods of team delivery of ambulatory care. Community health centers are developing team delivered comprehensive care to communities where the patient unit is a family.

Administrators of such centers face many new and complex issues in organization management. These issues center around the organization of the health team, the structure of the total organization, educational policy and practices, staff motivation and community relations—to name a few.

There exists a body of experience, mostly in nonmedical organizations, where the application of behavioral science based knowledge about organization functioning has significantly improved their effectiveness. Some of this knowledge and ex-

perience can be of considerable assistance in the administration of team-delivered, community-based comprehensive health care.

This paper will look at a number of issues of organization and relate these to the methods used in other settings for analyzing and improving an organization's effectiveness.[1] Specifically, this paper will examine the kinds of organization problems existing in community based delivery settings and will then identify several ways of looking at organizational functioning. These methods will be applied to the identified organization problems. Finally, I will discuss some implications for the curricula of medical and professional schools concerned with the education and training of health workers for the practice of social medicine.

ORGANIZATIONAL ISSUES

Some Symptoms

"Let me describe our major problems as I see them." The director of a community based health center is talking.

> Health care is delivered to the families in the community through health teams composed of physicians, nurses and community-based and center-trained family health workers. We are having a lot of difficulties in the operation of the health teams. Some of the reasons are the different backgrounds represented on each team, the cultural differences among the members, the difficulty in getting some doctors to function as colleagues with other types of health workers.

> We have problems about the role of the public health nurse in these teams. She is assigned as the coordinator and leader of the health team but this is a very strange role for her.

> We have a lot of communication difficulties between the community-oriented family health workers and the more highly professionally trained physicians.

> We are having a number of problems with supervision, particularly first-line supervisors who are mostly community residents whom we have trained.

> We are having a lot of difficulty around information flow and record keeping. Patient records are often incomplete and in the

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wrong place at the wrong time. A number of referrals get lost between departments and between the center and the hospital.

Another problem for me is that the top team doesn't function very much as a team. Each functional head of department such as pediatrics or obstetrics has reporting to him his functional counterparts on the delivery teams. He tends, naturally, to be more concerned with the carrying out of his particular functional area than with the overall management of the center. This makes it difficult to get best decisions for the whole organization.

We're pretty sure that we're not properly organized structurally to manage this operation, but we're not sure how to go about changing it.

The Conditions Causing these Problems

To adequately define the problem we need first to look at the environmental situation. Two "environments" or "systems" are interacting. The *patient system* with its problems, desires and needs interacts with the *health care delivery system,* which is composed of a variety of subsystems: medical practitioners, community development workers, social workers, educators and administrators. An analysis of these systems in a needy community brings out the following:

1. The patient system is highly complex. The patient families are composed of individuals with a variety of physical, emotional and social problems. They present a varied set of needs for service (treatment of disease, maintenance of health, improvement of living conditions, education in health and citizenship, assistance in action to change living conditions or welfare payments). They also have a variety of expectations of the health center staff (treatment of illness; advice on citizen rights; getting public agencies to take some action on community problems; leadership in dealing with social problems such as drug abuse or rat infestation; getting educated on health matters such as prenatal care, birth control).

2. The health care delivery system (the primary care health team plus backup teams of medical and social specialties) is usually composed of a variety of specialists who are trained to

deal with one or at most a few of the types of needs and expectations of the patient system.

3. The health problems of the patient system tend usually to be interdependent and complex. For example, lack of adequate heat because of an inattentive landlord causes the family to have more sickness such as colds or flu.

4. To service these complex problems requires capabilities in many areas: evaluating health problems; diagnosing disease causes; treatment of medical problems; diagnosing and evaluating social and economic problems; treating social problems by legal or social action; maintaining a new condition for a family.

5. The total services needed cannot be effectively delivered by assigning parts of the problem to specialists on the delivery team trained to treat those parts. Integrated effort is required among a number of different health workers to treat the complex problems in the family patients.

6. It is necessary for all health workers on a team to

a. understand the total complex of health problems of their patient families;

b. understand the patient's (family's) needs, attitudes expectations and values;

c. be able to jointly assess what resources (members of the health team) can best be deployed for diagnosis, treatment, health maintenance and education of the patient families.

Issues for Organization Leaders

Given the variety of different needs and expectations of patient families; the variety of educational, technical and social backgrounds of the medical and social health workers; and the necessity to have integrated team diagnoses and treatment of the interrelated medical and social problems in patient families, the major problems are how the organization leadership can:

1. Help the primary care teams integrate their diagnosis and treatment of the complex problems of their patient populations.

2. Provide an organization structure that reflects current work requirements.

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3. Deal with the human problems caused by the situation where a variety of roles (physician, nurse, family health worker) have to collaboratively perform a variety of tasks, many of them new.

4. Locate authority and develop competence so that decisions are made by those with the best information and by those closest to the problem.

5. Build an information system and communication patterns that assure that all health workers have best available information.

6. Build linkages between the practitioners (primary care teams) and the support system (all others).

7. Develop education and training programs that assure

a. adequate dissemination of clinical content to a variety of health workers;

b. dissemination of content about the social conditions of patient families and the community culture to medical practitioners;

c. develop training in skills of group membership for a variety of health workers;

d. provide adequate training in leadership and supervision for health team leaders, medical administrators and medical practitioners.

8. Maintain a patient-oriented delivery system in a situation where there are strong forces to mass produce the care.

9. Keep a staff with a variety of different backgrounds and values motivated and working together.

Given this set of organization issues or problems, the administrator needs mechanisms for working on them. It is here that some methods of organization analysis and planning used in other settings are useful.

ORGANIZATION EFFECTIVENESS

I want to identify several categories against which organization effectiveness can be measured.

1. The effectiveness of work teams.
2. Organization structure and its relation to the work.
3. The types of tasks and the roles needed to perform them:
   a. job descriptions and their use;
   b. job enrichment and modification.
4. Decision making.
5. Communications and information flow.
6. Education and development strategy.
7. Social issues:
   a. effects of different cultural backgrounds;
   b. effects of professionalism;
   c. effects of different value systems.

Team Effectiveness

A major leadership question is "how can primary care teams be helped to integrate their diagnosis and treatment of the total health problems of their patient population?" To look at this, it might be helpful to examine team effectiveness as a category. First, some definitions.

A team is a group with a specific task or tasks, the accomplishment of which requires interdependent and collaborative efforts of its members. To illustrate, a group of physicians sharing an office, each with his own patients, who share administrative costs and staff, would not fit this definition of a team. On the other hand, a surgical team working in an operating room would.

Effectiveness implies that the greatest part of the energy of the group is focused on accomplishment of the tasks of the group. Minimum energy is required for "maintaining" the group—its morale, its member satisfaction and its work processes. Here again most surgical teams are excellent examples of this.

In the community ambulatory setting, however, a number of conditions tend to work against high effectiveness. Let me list a few and compare them with the surgical team environment.

Condition	Surgical Team	Community Primary Care Team
Purpose	Specific: to operate and heal	General: comprehensive care
Task	Very clear	Somewhat unclear: probably many tasks
Who does what?	Roles and functions very clear	Roles ambiguous: several members may perform same functions for different patients
Where work is performed	In one location	In a number of locations
Decision making	Clear hierarchy: surgeon, first assistant, scrub nurse	Unclear: group of colleagues with different information and skills; group decisions sometimes required
Communication	One-way command system	May be discussive and problem solving
Goal priorities	Same for all members	May vary among members (medical treatment vs. social action vs. education)

Given this set of conditions, the situation in which the team is functioning tends to be ambiguous. People are much less clear about what is expected of them. Competition for leadership is more likely to occur. Because of different goal priorities, decisions are harder to make and frequently are not made. Communication is more likely to be closed because people are not sure of the consequences of being open.

In the health teams in one center all of these behaviors occurred and are discussed in detail elsewhere in this book.[2]

To deal with such a set of conditions the team needs to spend some time early in its life explicitly examining how it will work. It needs to come to grips with such issues as:

Which members will perform which work?

How will this be decided?

What problems of patient identification, diagnosis, treatment, health maintenance, patient education need to be dealt with by the team working as a group?

What are the role expectations of each member for the others? For example, what does the physician expect of the public health nurse? How does this fit her expectations?

What information is needed from one member by another? For example, what does the pediatrician, who sees the patient in his office, need to know from the family health worker, who visits the family at home, about the life style, values and living conditions of each patient family?

What personal and professional development needs does each member have? How can the team help these be met?

Team development activities to work on these problems probably require assistance from someone skilled in helping a team look at such issues. He may be an outside organization consultant, an education specialist within the organization or a member of the institution's management.

In any case, community health care institutions should develop a capability for helping delivery teams consciously work on improving their own internal effectiveness through working on their internal processes, practices and relations.

Organization Structure and its Relation to Work

The question "What is the most appropriate structure around which to organize the task?" is a universal organizational issue. It is particularly important in settings such as community ambulatory care where the work (tasks) is so varied and relies on so many different technical backgrounds.

In such delivery systems, the practitioners (the deliverers of health care) tend to be located at the bottom of the organizational totem pole. Family health workers, public health nurses, interns and residents are the people who actually deliver the care. Everybody else in the organization is there to support their efforts. Yet the organization chart shows a different picture. For example, the chart shown in Figure 1 (a traditional hospital-oriented reporting system) was the one first in use at the center studied.

Each specialist (pediatrician, internist, nurse) reported directly to his functional counterpart. Family health workers who had no counterpart reported to the public health nurse.

This structure does not support the team work to be done.

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FIGURE I. TRADITIONAL ORGANIZATION CHART

HOSPITAL DIRECTOR

CENTER DIRECTOR —————— COMMUNITY ADVISORY BOARD

MEDICAL DIRECTOR
(Deputy Center Director)

HEALTH ADVOCACY   TRAINING   ADMINISTRATOR

COMMUNITY
DEVELOPMENT   LAWYERS

TRAINING
SPECIALISTS

PERSONNEL

LEGAL

CONTRACTS

OFFICE

MEDICAL RECORDS

DEPARTMENT HEADS

NURSING   OBSTETRICS   PEDIATRICS   INTERNAL   PSYCHIATRY   DENTISTRY
MEDICINE

HEALTH TEAMS

PUBLIC HEALTH   PEDIATRICIAN
NURSE

FAMILY HEALTH   INTERNIST
WORKER

Rather it maintains the separation of the various members by having them report up functional lines.

If the chart is redrawn from the point of view of the services to be delivered the result is as in Figure 2.

In this chart all members of a health team "report" to a team or unit manager. He is the administrative boss. His job is to facilitate the team delivery of health care. The chiefs of service are supports—technical and educational resources available to guide, counsel and plan with all team members.

These two charts represent two major types of structure—

FIGURE 2. ORGANIZATION CHART BASED ON PRODUCT AND SERVICE

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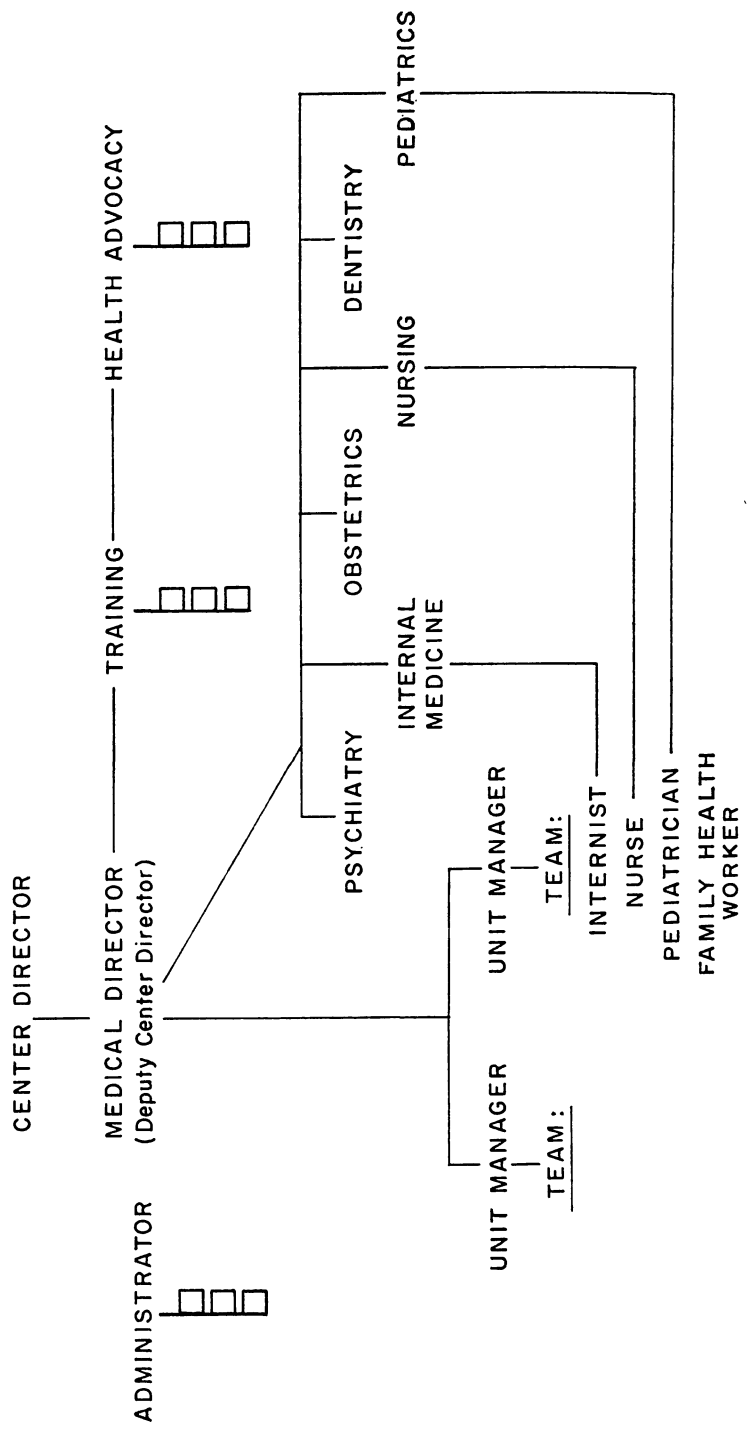
FIGURE 3. MATRIX STRUCTURE

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                              ─── MEDICAL  DIRECTOR
  ┌──────────────────────┐                │
CAPABILITIES            ┌──────── OPERATING  UNITS ────────┐
  │                     │                 │                │
  │                 ┌───┴───┐             │                │
  │                 TEAM 1               TEAM 2           TEAM 3
  │
NURSING ─────  PUBLIC HEALTH       PUBLIC HEALTH      PUBLIC HEALTH
                  NURSE                NURSE              NURSE

INTERNAL
MEDICINE  ───────INTERNIST          INTERNIST          INTERNIST

PEDIATRICS ─────PEDIATRICIAN        PEDIATRICIAN       PEDIATRICIAN

               FAMILY HEALTH       FAMILY HEALTH      FAMILY HEALTH
                  WORKER              WORKER             WORKER
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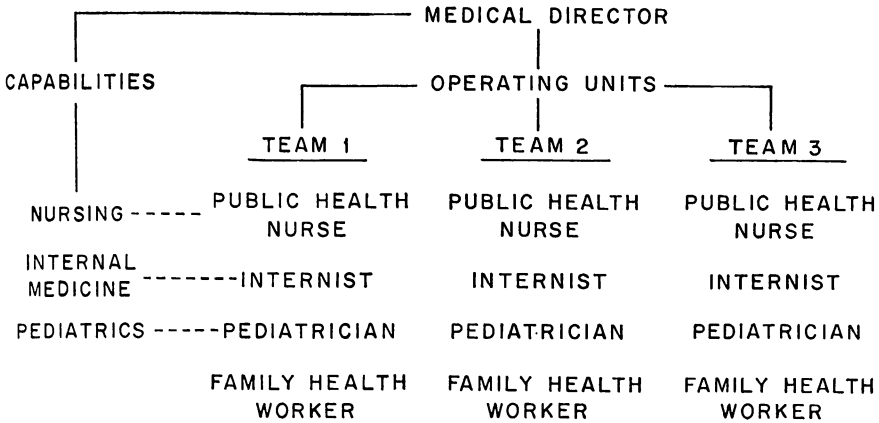
Functional: based on technology (medical specialties) ; *Product/Service:* based on "market" (patient needs and demands). The nature of the requirements for service in this setting, including preventive care, treatment care, improvement of social conditions, probably means that a third organization structure or design is required. *A matrix design:* this type of structure is used in complex organizations when the interdependencies around work are such that no simple reporting structure (pyramid organization) will do. A matrix structure comprises a series of operating units such as health teams, along with a set of capabilities such as internal medicine, psychiatry or dentistry. The operating units and the capabilities must interact regularly for the work to be accomplished. A variety of combinations of people will need to collaborate around specific tasks. Figure 3 shows a matrix chart for this same center.

There are a series of operating units, in this case, health teams, and a series of capabilities such as medical specialties. Both report to the medical director. The operating units might be compared to "profit centers" in an industrial organization. Each is responsible for "a piece of the business." The capabilities such as obstetrics, psychiatry or community organization are technology sources. The management problem for the director is to combine these "operating centers" and "capabili-

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ties" in ways that will optimize the health services. For example, the public health nurse on the team needs to be "supported" by the chief nurse regarding matters such as nursing practice or the training of other nurses and family health workers. She also needs to have a direct line to the chiefs of pediatrics and internal medicine relative to the identification, diagnosis and treatment of disease. She needs, in addition, access to the training and education department around development needs, and to medical and administrative directors relative to supervisory and personnel problems, and issues in the relationship of her team to other parts of the organization. This multireporting situation is quite different from the typical medical organization reporting lines.

To make matters even more complicated all of the above-mentioned reporting lines refer only to the delivery of services —the work of the organization. In addition to that a separate reporting line is needed for career planning and personal development. For this purpose, a functional hierarchy is usually appropriate. Thus, for her own career planning and development, the nurse probably reports also to the chief nurse. The chief nurse needs to coordinate with the medical director relative to career opportunities, career paths and career ladders for a nurse who might, in such a setting, move out of the nurse role into administrative or physician's assistant roles.

One more complication is the need for a separate organization structure for organization planning and development. The set of capabilities and relations necessary to operate the day-to-day services is not the same as that required for planning the future of the organization. Many nonmedical organizations have a separate chart of organization for future planning. Administrators of health centers would be wise to consider this also.

To summarize, organizations are, in fact, multistructured. Realistic managements recognize this and explicitly design their structural charts to reflect it. It is not unlikely that multiple organization structures will be seen in health centers.

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Working in such a structure is much more demanding. Authority is less clearly defined, decision making is more complicated, the situation is more ambiguous. This produces tension and anxiety among the members of the organization. To deal with the anxiety there is a tendency to tighten up the structure and move back to clear lines of authority and to get decisions centralized at the top. What has to be realized in this type of setting is that the situation is necessarily ambiguous and anxiety producing. Rather than attempting to reduce the anxiety by reverting to old organizational models that are not effective it is much more productive to use the energy in developing specific structures that focus on patient needs and requirements. Reporting should be based more on information needs than on authority or power.

A guiding rule for administrators should be: "Form follows function."
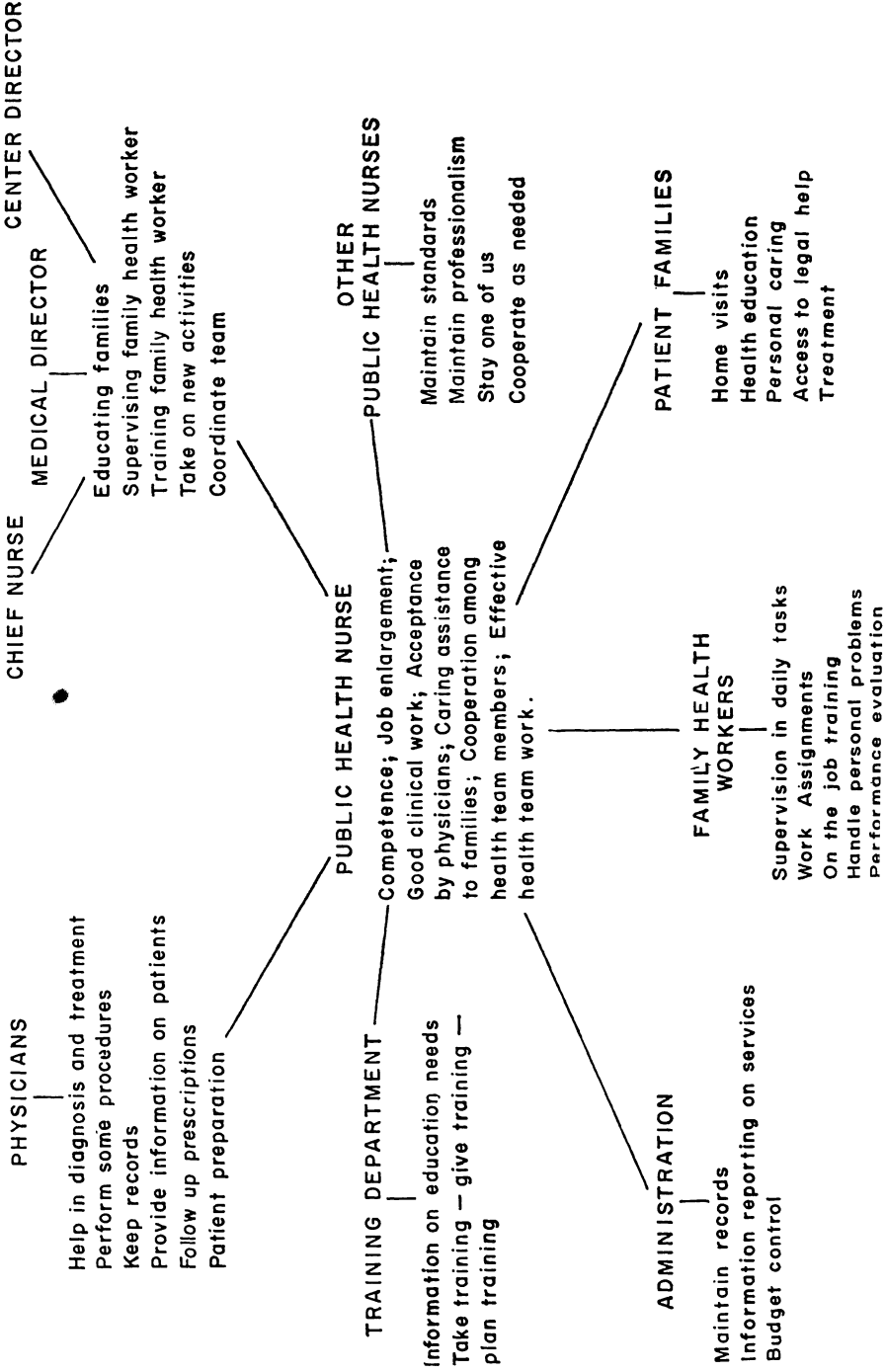
Tasks and "Roles"

One important condition in any effective organization is that people performing work understand what their job is, both in terms of their wishes and in terms of the expectations of the relevant people around them.

Expectations. In studies of organizations, this phenomenon is called a "role set"—that is, the person in a role such as a nurse or pediatrician is in the middle of a cluster of expectations about how he should perform in that role. These include expectations from his boss, subordinates, relevant colleagues as well as his own values and desires. For example, Figure 4 shows the "role set" of a public health nurse who is a team coordinator in a community health center.

Obviously, she cannot please or meet all of these expectations at any one time. This produces a condition of role conflict.

Role conflict is minimized in most hospital settings because the role titles (internist, obstetrician, surgical nurse) define the type of tasks the incumbent will perform and the relations he will have with other roles. In the community setting, roles are

FIGURE 4. ROLE SET: PUBLIC HEALTH NURSE

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CHIEF NURSE   MEDICAL DIRECTOR   CENTER DIRECTOR

Educating families
Supervising family health worker
Training family health worker
Take on new activities
Coordinate team

OTHER
PUBLIC HEALTH NURSES

Maintain standards
Maintain professionalism
Stay one of us
Cooperate as needed

PATIENT FAMILIES

Home visits
Health education
Personal caring
Access to legal help
Treatment

PHYSICIANS

Help in diagnosis and treatment
Perform some procedures
Keep records
Provide information on patients
Follow up prescriptions
Patient preparation

PUBLIC HEALTH NURSE

Competence; Job enlargement;
Good clinical work; Acceptance
by physicians; Caring assistance
to families; Cooperation among
health team members; Effective
health team work.

FAMILY HEALTH
WORKERS

Supervision in daily tasks
Work Assignments
On the job training
Handle personal problems
Performance evaluation

TRAINING DEPARTMENT

Information on education needs
Take training — give training —
plan training

ADMINISTRATION

Maintain records
Information reporting on services
Budget control

considerably less clearly defined, therefore, the conflict is greater.

Look at Figure 4. How can the nurse determine priorities for spending her time? How much of her energy should be spent on: delivering services to patients; learning new skills and procedures; visiting patient families; supervising the work of family health workers; educating and training other workers; learning about supervision and management?

Decisions about the distribution of energy cannot be made by the nurse alone or by her supervisor. They affect and are affected by at least ten other people. The resolution of this problem of competition for time and energy is not a simple one. Because of the difficulty in deciding, people often retreat to those things they already know how to do and feel comfortable doing. So the nurse might give priority to those matters for which she has previous training and practice, and ignore those activities that might be most needed for patients or that would, for example, free physicians to do things for which they alone have the capability. The problem can be somewhat relieved if one develops specific criteria for making these choices. Some that might be considered in this case are:

Direct service to patients   Low ———— High
Short-long term effects   Short ——— Long
Immediate effects on other workers Low ———— High
If neglected now, what is the cost? Low ———— High
How important is it to me?   Not very ——— Very

By working with these or others she should be able to develop a priority system for her own time use.

It may well be that the best way to make these decisions is in collaboration with some of the most relevant colleagues. But in any case specific means of choosing need to be developed.

Job descriptions. A management practice in most organizations is the development of job descriptions to define the tasks, responsibilities and authority of someone doing a particular piece of work. Usual assumptions behind this practice are that

a job can be defined specifically enough for any person to do it the same way; a variety of people can "fit into a job description" and the work is similar enough in different situations that a universal description can be produced.

In recent years, in many nonmedical organizations where the work has become more complex and the people more demanding to be treated as individuals, traditional job descriptions developed by a personnel department or a functional department head, have proved to be nonfunctional and frequently dysfunctional to both the work and morale. Managers have found that it is necessary to develop a specific man-job description for each situation. The specifics of the job description for the astronauts and Apollo 15 differ from those in Apollo 8, based on a different though similar mission, different specific tasks and different "performers" in the same role.

A more realistic assumption in describing jobs is "a job is a man in action." Any incumbent in a job will have certain tasks to perform, but will have some latitude in the way he performs them.*

This may be applied to the community health center to outline for example, the role of the family health worker and some of the factors that affect how each individual performs the job.

The family health worker is a community resident who has been selected to be a member of a health team. She has received six months of training in clinical medicine, social work and community development. She then joins a health team composed of a public health nurse, a pediatrician, an internist and two other family health workers. Also associated with the team are community development and legal specialists, dentists and psychiatrists. The team services 1,500 patient families in a one- or two-block area.

To define the job of the family health worker the following must be considered:

1. Each one of the health teams serves a somewhat different patient population.

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2. The priorities of demands for service vary as a result of social, economic, ethnic and other characteristics.

3. Each health team has a unique internal operating mode. In "Team A" the work of the family health worker may be to make home visits and take basic information on health conditions. In "Team B" the work may include taking leadership and correcting substandard housing conditions, recruiting patients and teaching the medical staff about the conditions of the patient families.

No single job description would reflect these differences. What has been found to be more appropriate in other settings and probably has application to this setting, is a "living description."

The individual incumbent (family health worker) writes down his picture of the job with himself in it—how it actually works. This is checked with supervisors and relevant colleagues (such as health team members, service heads). The resulting description reflects the understanding of the person in the job and the relevant people around him about what is to be done by him. Such a procedure also provides a practical benchmark for planning performance improvement and for performance evaluation.

Job modification and enrichment. If the work requirements are compared with what is actually done by whom, it is often found that the best use is not being made of a particular capability. Applying this question to the tasks and capabilities of the chiefs of service in this center produced some major changes in job emphasis and activities. A few examples:

Prior to the examination, the functional service heads such as pediatrics, internal medicine, nursing and so forth were responsible for the work, discipline and education of their functional counterpart, and for the application of their specialty to patient service. After review by the incumbents in these roles of how best to use their talents in terms of the total mission of the center, the priorities of effort changed. A more current description of their responsibilities includes:

1. Leadership in reviewing and disseminating information about the disease problems in this setting. As an example, producing information on treatment of diabetes patients in this community setting; producing information and guidelines to help teams decide who should be trained to do what about this particular health problem.

2. Clinical education for a variety of health workers with different backgrounds. This means both teaching and helping others to teach.

3. Setting quality standards and guidelines.

4. Consultation on problems in their specialty.

Note that two important items in the earlier description—responsibility for discipline of counterparts and responsibility for the application of their specialty to the patient population, and part of a third, the responsibility for the education of their functional counterpart—were transferred to the teams themselves, and to team management.

To summarize about tasks and roles, people have needs to understand what is expected of them. In new fields and turbulent settings, there is a variety of expectations. In the community health care setting this produces competition for the time of the health worker. Criteria need to be developed to choose among the competitors, but traditional job descriptions are dysfunctional to this task. Man-in-job descriptions do provide this kind of information. By looking at work, jobs can be enlarged and enriched and made more relevant to patient requirements.

Decision Making

Most nonmedical organizations have traditionally located decisions based on risk at various levels of the hierarchy. For example, $5,000 decisions are made at one level, $10,000 at the next level and so forth. As customer demands and the organization necessary to meet them have grown in complexity this basis for decision making is no longer adequate. Neither is it in community medical practice.

Today, in complex organizations, the trend is to have decisions made as close to the source of the problem as possible and by those who have the relevant information, regardless of their role or location in the organizational hierarchy.

In a health delivery system, a first question might be around the management of location of information, particularly about patients' needs. In the community setting, it is located in several places. Some information is located in the patient, some in the family health worker, some in the nurse, some in the physician. Inasmuch as all the information comes together in this case in the primary care health team, it makes operational sense for the team to make decisions on evaluation of patient health, diagnosis and treatment of health problems, strategies for recruiting and educating patients, application of clinical knowledge such as disease treatment to specific patient population, work plans and scheduling of team members, group conferences for sharing information and problems and administrative and housekeeping matters.

To implement these types of decisions in this organization the health teams who were not experienced in such administrative matters required specialized training in decision making and in how to process information. It also meant some structural changes to handle the administrative decisions. As an example, the role of unit manager was created. The incumbent of this role may or may not be a physician. He reports directly to the medical director and has authority for hiring, firing and disciplining, all team members. He is responsible for scheduling their work. He provides linkage to the rest of the organization. His major function is coordinating the decision making and the information around it.

Decisions around the delivery of care have also been assigned, either to the teams or to subgroups or task forces from them.

To summarize, organization effectiveness is increased when decisions are located as close to the problem source as possible (example, health teams make decisions on total care), decisions are made by those with the information (example, decisions

about education, patient relations and so forth are made by the teams) and administrators recognize that "people are most likely to support what they help create;" "ownership" in decisions goes far toward effective implementation.

Communications and Information Flow

The flow of information, the quality of communication in terms of its openness and the type of information transmitted within an organization are important factors in effectiveness.

In the treatment of families in community settings by a health team, it becomes extremely important for all members of the health teams to know why various members are doing what they are doing. This requires much more communication, more information sharing and a degree of openness and trust that is not so necessary in other settings. Although typical health teams today are made up of a number of specialists (physicians, nurses, community workers) the services needed require generalists to a considerable degree. Physicians need to know a number of things about social conditions and ethnic backgrounds of patients to adequately diagnose and treat. Community oriented family health workers need to know quite a bit about disease diagnosis and treatment, as well as social and community problems and community organization.

To achieve these ends, time should be allotted for working on the communications and information flow. It has been found that members of primary care teams, medical service department heads and management teams do benefit from analyzing their communications processes. Analyses might include the kinds of information that needs to be shared, the direction of information—who needs to know what—and the identification of linkages between parts of the organization such as team-to-team, teams to medical department heads or teams to administrative services.

From such an analysis, various procedures such as meetings, memoranda and reporting forms, can be devised that will facili-

tate the work. For example, such an analysis in this center produced a finding that the middle management department heads such as medical records and pharmacy felt quite removed from the management group. Information was not shared on plans, priorities and treatment practices. Simultaneously, a lot of information was being withheld by them from the central group. From this finding, it was a relatively easy step to set up monthly joint meetings to initiate a feedback system that could operate between meetings to assure the flow of necessary information and to create a task group among several levels to continually monitor the communications.

Information systems. An area of great need in complex health delivery systems is an overall information system that will facilitate information flow—technical and administrative. Problems were found in transfer of information about medical records, retrieval of historical data, referrals and record storage. All these are current issues for which solutions are being sought.

I do not propose to go into detail about information systems at this point, but rather to call the reader's attention to the availability of a body of knowledge about the subject that could well be applied more than at present in community and social medicine management.

Education and Development Strategy

An important variable in any organization is how it manages the development of its staff. The top management of an organization must concern itself both with organizing how to do the day-to-day work and organizing to manage the training and development of people for advancement and enrichment.

In the community comprehensive care setting many new issues around education and development need to be considered. Some questions:

1. What clinical content needs to be taught to what staff roles? For example, who—physicians, nurses, family health

workers—needs to know and be able to do what about the diagnosis and treatment of diabetes in this community?

2. What content should be taught in the team setting and what content should be taught by roles?

In many medical settings senior doctors teach junior doctors, senior nurses teach junior nurses. The student is in a "classroom" of his peers. The community setting offers a number of important reasons for teaching both medical and management content to the practicing team. First, the application of the content to the specific patient problems can be effectively done only by the team members; second, for team development purposes, the type of activity provides an ideal situation for collaborative effort among a number of members. To again draw an analogy from the space program, all astronauts receive similar basic training in a variety of technical work, problem solving and so forth. However, when a particular team is assigned a specific mission—e.g., Apollo 15—the training for that mission is given to the total team in the team setting. The team is composed of the astronauts who will fly, the backup team who may fly the mission and the capsule communicators—fellow astronauts—who are "flying the mission" from the ground. Success depends strongly on these people being "in each other's heads"—knowing how the others react and having common knowledge and understanding about the specifics of the mission.

In the comprehensive care setting a team needs the same cohesiveness. In its mission of treating, say, diabetes to a group of families in the community, they will need to define specifically and uniquely for them, who and how best to handle the patient's emotional state, genetic counseling, early screening and diagnosis, treatment of acute episodes, long-term management of the patients and patient education. They will also need to have specific and unique answers to questions such as: what should be done where? In the office, in the hospital, in the home? By whom? They will also have such educational questions as: How much should the nurse know about screening?

How much should the community health worker know about diet? How much should the physician know about the patient's habits and life styles?

One of the most significant findings in this particular health center was that in many ways their educational strategy was subverting their managerial strategy. The primary goal of center management was to have effective teams delivering health care to the particular patient populations. Therefore, effective team functioning was important. Much of the educational activity, however, was aimed at helping people learn about the work in situations that maintained the integrity of their original roles. Some examples: Family health workers, upon entering the system, received six months or so of training in a class composed entirely of family health workers. Only afterwards did they join a team where they were expected to be "instant" team members. Internists might be teaching the same medical content to nurses on Tuesday, to family health workers on Wednesday, to doctors on Thursday. Applications to the particular patients could not be adequately discussed in that classroom setting; the team was the appropriate unit for discussing how to apply the content to the actual practice.

After analysis, a reorganization of educational program and priorities was undertaken. An analysis was made by heads of services of what content could and should be taught to the team as a team. To the degree that the team could become a classroom or learning community, it was assumed the application of what is learned would be most effective.

Obviously it is not possible to teach everything in a team setting. However, an effective strategy might be to maximize rather than minimize what is taught in this setting. Types of subject material that can be taught in a team include clinical content, problem solving and communications skills, community diagnosis and patient diagnosis. Medical service heads in this center are consciously becoming better acquainted with education technology—teaching methods, learning designs, use

of teaching aids and so on. For example, in teaching "treatment of hypertension," to teams, the learning design might look like this:

Subject Matter	Method	Who
Basic theory	Lecture	Medical service chief
Application to community area	Discussion	Team leaders
Application to specific team	Analysis and cases	Teams

The problem of transferring skills from one profession to another is a special subquestion that needs specific attention. It is basic to learning and educational theory that what is involved in transferring "knowledge," for example, is the teacher telling and the student listening. This is quite different from what is involved in the transferring of "skill" where the student must practice the skill. In applying this principle to the transfer of competence from one role (example: pediatrician) to another role (example: nurse) several gaps appear between what is apparently learned and what is in fact usable. Opportunities to practice skills in a controlled and supervised setting (such as for an intern on a hospital ward) are limited in community medicine. There tends to be a lag between learning a skill and being able to practice it under supervision. In another study of nurses, the fact emerged that among those things that had been taught, they felt competent to do only those things that referred back to their basic nursing education. They felt relatively low competence in the skills they had learned on the job from the physicians. In another study, a gap was shown to exist between what nurses indicated they felt competent to do and where authorized to do by physicians, and what they were in fact doing as perceived by patients and members of their health teams.

Some implications for educational strategy are: Although people desire to become more "professional," they exhibit a corollary concern about being not as competent professionally as their "teachers." This produces conservative behavior and a tendency not to practice newly learned skills. (Example: nurses comparing themselves to doctors did not use new, au-

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thorized skills.) The type of learning—e.g., knowledge or skill —should guide the particular educational method. (Example: skills cannot be learned from lectures, but must be practiced.) The setting (the class) in which material is taught is perhaps the most important single variable. If application is required, the class should be those who have to apply the knowledge (in this case, the health teams). If skill is the goal, people with comparable backgrounds and preparation may compose a "best class." However, in each case, the choice should be conscious.

SOME SOCIAL ISSUES
WITH ORGANIZATIONAL IMPLICATIONS

The three issues that have important implications for managing comprehensive community based health care are:

1. The effects of different backgrounds and "reference groups" on collaborative work.

2. The effects of "professionalism" on carrying out the work.

3. The effects of changing and different value systems on the people and the work.

Effects of Different Backgrounds

Look at the number and variety of backgrounds included in a comprehensive health care delivery team: physicians with medical school training who are in their second or third year of residency; interns in community medicine; public health nurses with some special training; community resident family health workers with six months of special training; lawyers; social workers and community development specialists and medical specialists (psychiatrists, obstetricians, dentists) on the hospital staff.

When people from these different backgrounds are asked to work as colleagues or peers, a lot of tension is produced. Some examples: an internist trained to a doctor-patient relationship may have real difficulty in "sharing" the patient with other health workers; public health nurses trained in medical education and delivery of services, when asked to function as lead-

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ers of teams composed of doctors and other health workers, find this role very difficult to perform; community health workers with no previous health care experience, are expected to contribute as colleagues with physicians on the diagnosis and treatment of patients. They find it most difficult to discuss, as colleagues, their information about patients because of their attitudes about their own competence compared to the doctors'. The results of this tension are reduction in information flow, low level compromise, little challenge of ideas, low trust and lowering of commitment to getting the job done. A "business-like" approach to the task will not, of itself, solve these problems. Administrators need to develop some program in which relevant groups such as health teams can talk about such things and jointly work out methods of dealing with them.

The Effects of Professionalism

Any organization composed of a variety of capabilities always faces an issue of multiple loyalties—loyalties to the organization, loyalties to the task and loyalties to the profession.

An organization question is: To what degree do professional standards and ethics, professional loyalties and the types of education and training required for accreditation, affect the work? In traditional medical systems it is relatively clear by accreditation who is able to provide what care. For example, traditionally a physician does prenatal care. However, with more and more team practice, the need to conserve the physician's resources for those things that *only* he can do requires numbers of health workers with different backgrounds and accreditation to begin to carry out such tasks.

Relevant questions in this setting are: what is it that only the accredited physician can and should do? Who should decide? What education, re-education and accreditation is needed to have some work done by others than physicians? Who should decide?

A related question is around rewards. When functions can be performed by people with various degrees of training, edu-

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cation and accreditation what are the implications for their relative compensation? Their career possibilities? Their accreditation?

The issue of "professionalism" will be occupying administrators and health delivery institution managers more and more. Edgar Schein in his new book on professional education has some relevant comments about this subject.[3] He says: "The problem of definition derives from the fact that we are attempting to give precision to a social or occupational role which varies as a function of the setting within which it is performed, which is itself evolving, and which is perceived differently by different segments of society." This has important implications for community health care management.

Effects of Changing Value Systems

A major condition affecting the management of delivery of health care in any setting, but certainly in the community setting, is the multiple value systems of both patient populations and the deliverers of care. As we move into the era of higher expectations, more social distance between the "haves" and the "have nots;" as we experience stronger social pressure for egalitarianism from a number of minorities, and see increasing concern with issues of life style, a new set of values is imbedded in many of the health workers emerging from medical and professional schools. Many of the younger men tend to focus more on the social values of health care. They tend to put more pressure on their colleagues for examination of the values behind the services. The older doctors in this center, who saw the role of the medical practitioner as one of providing technically excellent care to all patients, differed dramatically from some of the younger doctors who, in identical roles, were much more concerned with the social aspects of the delivery of health care to the community. They wanted to focus more effort on social action and the development of more capability to manage health care by the community residents themselves. Certainly no administration of community health care

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institutions can afford to ignore this changing mix of values on the part of practicing health workers, patient populations and the communities in which they live. An analysis of the values of the subpopulations around the system—patients and deliverers of care—and explicit attention to this in management planning—are indicated organizational directions.

IMPLICATIONS FOR THE EDUCATION OF HEALTH WORKERS

Educating for Management

Based on my experience in the Martin Luther King Center and discussions in similar community based delivery institutions it seems apparent that education in medical institutional management must be an increasing part of medical education for physicians and others moving into social and community medicine. Specifically, what is needed seems to be competence in organization structures; in the management of decisions; team development; career development; information systems; community and organization development; planning and managing change. Management will need to have the capability both for managing short-term work and for planning the organization of the future.

Although the long-range hope is that training in this broad area will be part of the training of physicians and other health workers who are moving toward careers in community medicine, the short-term need is to bring in people having particular competence in these specialties. In the near future we are definitely going to need the kind of organization development capability in community health centers that has come to be part of the management of other complex, nonmedical enterprises.

Although training in this area should be built into the curricula of medical and nursing schools, it might also be desirable to look to management schools to provide some of these near-term resources. More and more, graduates of business and industrial management programs have the knowledge and skills

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in organization development, psychology, information systems and management methods that are needed to manage complex institutions. They also tend to have the kinds of social values needed for effective functioning in a community setting. They may well become a source of talent for organization planning and perhaps for leadership in some medical institutions.

Speculations for Educational Curricula

Some of the areas where curriculum content needs to be expanded to prepare people both for giving and managing the kinds of comprehensive health care under discussion, are:

1. Social system theory and its application to organizations.
2. Systems analysis.
3. Organizational behavior—the dynamics of organization, structural design, decision making.
4. Group dynamics, group development and team building.
5. Leadership and supervisory training.
6. Information systems management.
7. The process and planning of change.
8. Interpersonal and communications skills.

A great deal of such content is included in the curricula of medical and other professional schools. The point here is to emphasize the need for more such content. These matters should receive the joint attention of heads of medical schools, administrators of teaching hospitals and directors of community health centers.

A body of knowledge in the behavioral and management sciences around the management of complex institutions can and should be brought to bear in a much more significant way than it has been to help the leadership of medical institutions deal with the constellation of problems outlined here. I would hope that the separation of the profession of medicine from the field of management is a matter more of historical than of future fact. Evidence is mounting that a merger of these capabilities could be in the best interests of both, and certainly in the best interests of society.

REFERENCES

[1] My "awareness" developed principally through working with the director and management staff of the Martin Luther King, Jr. Health Center in Bronx, New York. During the time covered in this paper, the center, which is part of Montefiore Hospital—a large, community based voluntary hospital—was under the direction of Harold M. Wise, M. D.

[2] See Rubin, I. M. and Beckhard, R., Factors Influencing the Effectiveness of Health Teams.

[3] Schein, E., PROFESSIONAL EDUCATION: SOME NEW DIRECTIONS, Sloan School of Management, Massachusetts Institute of Technology, for the Carnegie Commission on the Future of Higher Education, 1971.