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November 10, 2008

President Elect Barack Obama

Dear Mister President:

Congratulations! Fresh air for our country!

I am an M.D. specializing in psychiatry, and organization development. This letter is presumptuous as I am struck by your wealth of knowledge. In the 1960s and 1970s I was fortunate as Deputy Commissioner of the North Carolina State Department of Mental Health to have significant delegated responsibilities. I knew of General Systems Theory as statewide Director of Professional Education and Training and saw this as an alternative to the piecemeal approach. It is how we put a man on the moon.

Dismayed about continuous requests for more money for fragmented human services which did not increase, improve or unify services, Governor Robert Scott approved my proposal to launch a "systems approach" and we chose the area of alcoholism. We averted a multimillion dollar institution. Instead with fewer dollars we developed a locally based, unified, consumer based, ground up "system". I enclose copies of invited, nationally published papers which describe this approach.

I know that you will hit the ground running, make immediate decisions as well as address the long haul. At least in the area of human services, put in place a systems approach, nationally led and locally designed, computer model based approach to the development of services. I have supported you since your initial announcement as candidate for the Democratic nomination and before you had the first N.C. office. However I do not seek anything for myself.

My warmest wishes and most fervent prayers are with you, your family and our nation.

Sincerely,

Nicholas E. Stratas, M.D., D.L.F.A.P.A.



A Systems Approach to Alcoholism Programming

BY HAROLD D. HOLDER, PH.D., AND NICHOLAS E. STRATAS, M.D.

The Regional Alcoholism Systems Project (RASP) was undertaken as the first step in developing a comprehensive alcoholism program for a region of North Carolina. One of the first such programs to employ a systems approach, it began in 1969 and after design and engineering stages, which the authors describe in detail, it is now being implemented. Changes in the approach toward dealing with alcoholism resulting from the RASP approach are outlined.

THE COMPLEX PHENOMENA called alcoholism and the many public and private responses that these phenomena evoke constitute a significant problem both nationally and within the State of North Carolina. The experience of North Carolina with this problem suggests:

- Current programs are estimated to serve less than five percent of the total population that uses alcohol as a means of escape.
- The rate of increase in alcoholism exceeds the rate of population increase.
- The State of North Carolina spends over nine million dollars on current programs, but a high rate of recidivism is experienced.
- The cost in lost human effectiveness is even greater.

A project called the Regional Alcoholism Systems Project (RASP) (1, 2) was undertaken as the first step in changing this "way of life" by developing a comprehensive alcoholism program for a specific region of North

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Carolina (3). The South Central Region, one of four administrative regions of the North Carolina Department of Mental Health, covers 20 counties with a total population of approximately one and a half million. This region is further divided into ten areas representing the target populations for existing community mental health centers. The South Central Region, unlike the other three regions of the state, had no alcoholic rehabilitation center or coordinated program for alcoholism.

Historically the public response to the alcoholic or problem drinker or to the collective problem called "alcoholism" has been partial and segmented. It has not included a planned or purposeful approach to all facets of alcoholism. Community, state, and federal agencies have responded primarily to individuals, which is indicative of what is experienced most directly—an intoxicated and often abusive individual who requires immediate attention. To view this situation through "systems eyes" reveals a cluttered, disjointed, overlapping, uncoordinated, and ineffective set of public and private programs that are opportunistic and responsive primarily to an immediate crisis or community tension. Lacking is a purposeful and continuing system that approaches the problem both at the micro (individual drinker) and macro (community) levels, that is able to bring together current resources and activities effectively, and that is responsive to changes in the population served.

To avoid doing "business as usual" in the South Central Region, the 1969 North Carolina General Assembly appropriated funds for a comprehensive assessment of the problem and the implementation of an integrated approach to alcoholism. The systems approach was recommended, and Phase I of the Regional Alcoholism Systems Project was begun in September 1969. Phase II (July 1, 1970-June 30, 1971) of RASP involved the implementation of pilot projects based on



nine months of analysis and their integration into currently existing community alcoholism programs as well as the design of an evaluation subsystem. Phase II and subsequent phases are the action portion following study and design.

Specifically, the objectives of the Regional Alcoholism Systems Project are:

1. To make explicit the assumptions and definitions necessary to describe the phenomena of alcoholism;
2. To determine an operative model of alcoholism as experienced in the South Central Region;
3. To describe the current system for response to individuals with nonacceptable alcohol-drinking behavior;
4. To design a new system that more effectively and efficiently returns the individual to a social role beneficial to both the individual and the community;
5. To document and to implement this system design in the South Central Region;
6. To evaluate the new system's performance in order to identify those components whose effectiveness or efficiency is less than satisfactory;
7. To institute a process of system redesign so that system performance is constantly adapting to its dynamic environment and increasing demands for service; and
8. Finally, to describe and evaluate this project as a basis for recommendations for other mental health planning activities.

A Self-Adapting Systems Approach

Phase I of RASP designed for each community mental health program an open, self-adapting system for response to the problem of alcoholism. Such a system is purposeful and adaptive not only in setting goals for itself but also in assessing both the state of the communities it serves and the appropriateness of its goals to community needs. System openness to its environment is an essential aspect of its purposefulness and existence. It uses feedback information to assess the impact of its action on the communities it serves and to identify new or unmet needs. Such information is utilized when necessary to alter future system-behavior.

At least three essential ingredients are built in. The first is *goal direction*. Goals for alcoholism programs must be operational if

evaluation of goal achievement is to occur, and must have quantitative indicators or indices of more general, qualitative goals. For example, it is one thing to say: "Our goal is to prevent alcoholism"; it is quite another to say: "Our goal is to reduce the incidence of public intoxication in one year by 25 percent." Goals are *not* the methods (program activities) devised to achieve these goals.

A simplistic comparison between this open, goal-directed system and a closed, goal-oriented system (which describes most of the current programs for alcoholism) is between the technologically sophisticated heat-seeking missile and the torpedo. The former is constructed to collect and process information—in this case signals of heat intensity—in order to continuously change its flight course in seeking its target, a maneuvering jet aircraft; the latter, once launched, cannot change its course no matter what changes occur in the target.

A second essential ingredient is *feedback*, which represents information about a system's behavior as a guide for future behavior. The third essential ingredient is the system's ability to *change or adapt*. Goals and feedback are meaningless if there is no potential in the system for change. Change may be directed at any combination of the methods for achieving goals, the goals themselves, and the feedback capabilities.

These essential ingredients can be incorporated in a viable system such as a mental health organization.¹ Through a continuous process of feedback, evaluation of goals and activities, and modification of system behavior, emphasis is placed on serving the population rather than on activities or programs that might be initiated. This process enables the system to maintain constant environmental interaction and thus to change as the environment changes.

The open systems approach is based on general systems theory, which emphasizes the integration, complex interaction, and dynamics of many elements as opposed to segmental approaches that analyze relationships between few elements (4-8). The use of systems theory in psychiatry and mental health has been described by a number of authors (9-14).

¹ A flow chart representing this is available from the authors upon request.



An open systems approach requires openness to human needs. A unique potential is the ability to respond and adapt to individuals, rather than provide standard treatment, and to a community in terms of its configuration and social distribution. The systems approach is *not* equivalent to the tools that are used, for computers are not unique to a systems approach.

Mental health professionals using this approach are able to make more public for themselves and others (including their patients) the definitions, goals, and assumptions being used. Using feedback, program evaluation and review can be carried out at the individual, group, organizational, and community levels. By viewing mental health programs as systems participating in larger systems, emphasis can be placed on adaptation and purposefulness. Individuals and communities have more opportunity to participate in and direct mental health programs, which in turn affect their lives.

Steps of a Systems Approach

Activities necessary to move an existing social system or arrangement such as an alcoholism program toward a purposeful, self-managed system can be clustered as: 1) system mapping—an empirical determination of the current operating nature of the system; 2) system design—the determination of the arrangements that are desired; and 3) systems engineering—implementation of new arrangements and augmentation of existing arrangements.

Within the activity of *system mapping*, four steps are necessary. In boundary identification an analysis of legal and activity boundaries, both existing and potential, is made to establish the working limits of primary concern to the program as expressed by the program and its linkages with other social groupings. Given a working boundary definition, the existing elements or units circumscribed by the boundary must be defined in element identification. Any element that has been identified as a subsystem receives inputs from and distributes outputs to other subsystems through input-output subsystem analysis. System identification describes the ways in which each subsystem is linked to the other subsystems, which produces a working model of the existing human-serving system—in this

case the problem-drinker system.

System design involves three steps: goal statements of what a system intends to do or have happen; decision rules, which identify the amount of acceptable variation away from selected goals, so that if the system fails to converge toward its goals, adjustment is necessary; and development and selection of alternatives, which includes the investigation of costs and anticipated benefits as a basis for program selection within existing constraints such as money, community support, etc.

Systems engineering involves the final three steps: implementation of system changes, through which modification of any existing system based on the program alternatives selected is undertaken; assessment of system output (evaluation or feedback), through which, as program alternatives are set in motion, the system's accomplishments and results are examined over time; and test and adjustment of pilot effort, through which, after initial readings on accomplishment, the pilot work can be reexamined and appropriately modified, which is basic to a systems approach.

Application to RASP

RASP has designed and implemented a regional alcoholism system that has: 1) a set of clearly defined goals, 2) an information system with follow-up to assess the changes in problem-drinking behavior in the region and detect new community needs, and 3) an organizational structure that encourages adaptability and modification in programs and uses such management tools as computer simulation in planning and evaluating programs.

System Mapping

Definitions. Working definitions include: "problem drinker"—anyone whose behavior is disruptive to those around him due to the use of alcohol; "alcoholic"—anyone who uses alcohol regularly and/or addictively as a part of his life-style, usually in a chronic (continuous) manner, and who is so labeled by a sanctioned institution or role (a subset of the above).

As the definitions imply, in order to understand a problem drinker, both the individual's behavior and the set of social responses to that behavior must be examined.



A descriptive flow chart of a system to produce alcoholics. The flow chart of a system to produce alcoholics, which illustrates the phases of disability, disruption, and public reaction through which an individual and his family may move over time, was developed. The summarized model contains three basic phases: Phase I—socially acceptable drinking; Phase II—dependence drinking (both acute and chronic); Phase III—public crisis and/or alcoholic labeling.

Phase I begins with the current drinking level of an individual, whether he is abstaining or using alcohol in any amount, and continues to a public crisis and his labeling as a problem drinker or alcoholic (Phase III). The key to movement from Phase I into II is the reason for the use of alcohol rather than simply the amount consumed. However, if alcohol use is motivated by a desire to avoid stress or escape a problem, the drinker passes into Phase II. In Phase III identification and labeling by a sanctioned institution or role, such as a hospital or physician, takes place. Legal intervention by law enforcement authorities, medical intervention by a physician or hospital, counseling or therapy, or any combination of these, may occur, especially if the individual is intoxicated when he moves into this phase.²

Estimation of current drinking practices—Phases I and II. In order to obtain an indication of how many individuals were in Phases I and II, an estimate was made of various drinking practices in the South Central Region. These estimates were based upon national findings and assume that the basic characteristics of this area and the sample area are sufficiently similar to justify use of these methods. Three categories of drinking were estimated:

- Drinkers: those who drink any alcoholic beverage in any amount (infrequent, light, moderate, or heavy).
- Heavy drinkers: those who drink nearly every day with five or more drinks at a sitting at least once in a while, or at least weekly with usually five or more drinks on most occasions (a subset of the above).
- Heavy escape drinkers: heavy drinkers who drink to escape problems of living (a subset of drinkers, but distinct from heavy drinkers alone).

²A flow chart titled "A Model of a System to Produce Alcoholics" is available from the authors upon request.

TABLE 1
Projected Drinking Practices
in 20 North Carolina Counties:
The South Central Region (in Thousands)

| CATEGORY | 1969 | 1975 |
|------------------------------|------|------|
| Number of drinkers | | |
| Men | 293 | 329 |
| Women | 237 | 264 |
| Total | 530 | 593 |
| Heavy drinkers | | |
| Men | 82 | 92 |
| Women | 19 | 21 |
| Total | 101 | 113 |
| Heavy escape drinkers | | |
| Men | 38 | 43 |
| Women | 12 | 13 |
| Total | 50 | 56 |

Results of these estimates are contained in table 1.

*A descriptive model of the public-private response system—Phase III.*³ There are several responses once an individual has entered Phase III. The legal response, which is well defined, generally results in either commitment to treatment within the corrections system or release on the condition that treatment is being undertaken.

The other responses, which are not so well defined, can be grouped under the heading of "nonlegal, social." These responses include those which are met within the family setting, within various social agencies, such as mental health or social service departments, and within other social settings, such as work and church.

System Design

Development of regional goals. A set of regional goals for the project was developed by the area alcoholism coordinators working in conjunction with their community program directors and the executive managers of the South Central Region. These goals, qualitative and generalized, were intended to provide a general direction for each area within which a unique alcoholism program can be developed based on specific, quantitative goals.

Development of computer models. To provide an operational tool for planning alcoholism programs based on specific goals,

³A descriptive model of the various paths an individual drinker might experience during this latter phase of his drinking behavior is available from the authors upon request. Estimates of the number of individuals that pass through each segment of this model have been developed and incorporated in a computer model.



two computer-based models were developed (15). These models are being used in alcoholism planning to simulate (act out artificially) the consequences of various program interventions. By making changes in the model during computer simulation, one can deduce how such changes will affect the performance of the system without making costly and risky trial changes in the actual system. One of the models developed for Project RASP is a comprehensive model of the "Public-Private System for Handling Problem Drinkers," which encompasses a broad range of the complex phenomena an alcoholic may experience.

The model simulates the movement of numbers of problem drinkers, each identified as one of three types according to social position, through a community network of services and handling points including the mental health system. Costs for services both to institutions and individuals, rates of flow, and lengths of stay in (for example) hospitals and jails are summarized for simulated years. Average simulations cover five years.

The purpose of this model is to explore the cost and consequences of a variety of community service/handling arrangements. Special programs designed to increase court referral to treatment or to change the responses of law enforcement to public intoxicants have been tested via simulation. Through such testing, the associated or ripple effects of programs can be documented.

The second model is an abbreviated representation of the mental health treatment system alone. More aggregative, this model's primary utility is to mental health decision makers in a rapid assessment of costs and benefits of various alternative treatment combinations.

This model is accessible through a computer terminal and is "conversational" in that the model asks an alcoholism coordinator what changes are to be simulated. The results of these changes are printed out on the terminal in easily read tabular form after a short wait. Both models are currently active in the North Carolina Triangle University Computer Complex.

Design and redesign of alcoholism programs. Each geographical area was viewed as unique in available fiscal resources, the life-style of the population, the extent of the problem-drinking population, and the dis-

tance from the regional hospital. Consequently, detailed planning and design were carried out for each including the identification of the target populations or problems toward which resources were to be directed, the development of specific goals of desired change, the identification of alternative courses of action, and simulation of each alternative via the computer models to ascertain future costs and effectiveness over the next five years.

Examples of area programs designed are:

- A traveling team of alcoholism professionals to make home visits to problem drinkers in a rural county.
- A program of "sustainers" or paid support persons (usually reformed alcoholics) to aid problem drinkers with personal stress situations and to augment regular clinical programs.
- A traveling team of mental health consultants to provide little direct treatment or services but rather to develop, encourage, and link existing community resources for problem drinkers.

Observations and recommendations for the overall regional system that would involve courts, law enforcement, the judicial and correctional systems, the social service system, and the mental health system were also designed.

Examples of overall system recommendations are:

- Creation of a unified system for public (also private, if possible) agencies and programs to produce a more effective referral mechanism, integrate and better utilize private resources, and respond to individual situations of problem drinkers.
- Development of a less punitive response to chronic drinkers and alcohol offenders.
- Promotion of community-based medical detoxification units with lower costs and increased potential for rehabilitation.
- Assistance to individuals and families before crises occur around drinking and provision for earlier detection of a problem prior to a downward spiral.
- Direct intervention in high-stress, problem-producing situations in communities that lead to or encourage problem drinking.

Systems Engineering

As previously described, Phase II involved the implementation of a series of pilot pro-



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grams and the development of an evaluation subsystem. Evaluation is concerned with the amount of disruption or disturbance involving alcoholic patients of mental health programs in each community and is therefore focusing on problem drinking as a failure to maintain an acceptable role performance in a community. With a systems perspective, evaluation is not concerned with determining the exact "treatment" effect on a client population (a determination that is both difficult and unnecessary, given the lack of a controlled experimental environment) but rather with providing program management data to assist alcoholism coordinators to determine needed changes.

Five areas of client role performance, sampled quarterly for all area programs, are personal drinking behavior (frequency and duration); family disruptions; employment and job performance; physical health; and public crisis involving such events as arrest, hospitalization for detoxification, etc. Results based on four sample periods covering the fiscal year 1970-1971 indicate improvements in all five areas of role performance for the region as a whole (16). In addition, a patient tracking scheme has been developed that determines the type, amount, and cost of services to clients; this will be linked to a cost accounting system currently being designed. The third year of RASP, which began on July 1, 1971, is reflecting the evaluation of pilot programs and appropriate adjustment is being made. Computer simulation of the modification is being conducted.

Conclusions

While program results in terms of patient changes can be described quantitatively, at least three significant qualitative changes are evident as a result of RASP. First, there is increased program emphasis on earlier intervention in the problem drinking spiral (Phases I and II); second, more comprehensive and detailed community planning for alcoholism are employed, using the procedures and data provided by RASP; and

third, there is less dependence on one-to-one treatment by mental health professionals and more emphasis on working with community institutions such as courts, schools, industry, and the church.

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*Chapter 23*

A SYSTEMS APPROACH IN NORTH CAROLINA

Nicholas E. Stratas
Clarence Boyd

as hospitals and local, regional, and state programs.

We make no assumption that existing programs or structures even though formally or legally organized are therefore "systems," as for example the "mental health system" and the "health system." In common practice, anything which seems extremely complex and difficult to define is frequently called a "system."

Basic system concepts have been more adequately expounded by other authors, and we will review only those basic segments relevant to our presentation (1, 2). Systems theory operates independently of any discipline or content area; it is a way of looking at the world. A system, as we define it, is a set of elements which have a definable organization or interrelationships functioning together over time. As a system moves from a relatively fixed mechanistic structure to a more adaptive monitoring structure, it becomes less a closed system and more an open system. A closed system is one which operates with fixed relationships requiring little or no outside intervention or energy and tends to lose its essential organization if disturbed.

An open system interacts with its environment as an essential part of survival. An open system has a monitoring component which provides it with feedback: information coming into the system from outside itself about the environment and about its impact on the environment and information from within its structure. Open systems are morphogenic, that is, they change their form or organization, as compared with morphostatic systems, which maintain a given form or organization. This characteristic is specific to our definition inasmuch as open systems are not necessarily morphogenic, for the ability to obtain information from the environment does not necessarily mean the system can change its form appropriately. A heating system controlled by a thermostat is an open but morphostatic system designed to maintain a given temperature level, something the system cannot alter. Feedback is used only to maintain a given structure or balance. An open morphogenic system, on the other hand, is able to evolve into new forms. Living organisms and groups of living organisms tend to have this characteristic, especially if they live over time.

Open morphogenic systems are goal oriented. The goals of the system are the work it seeks to accomplish and its purpose for existence. Ideally, the goals contain a specified, identifiable, measurable change and a time by which that change would take place or a time by which the work of the system would be complete. Goal clarification is the process of identifying these specifications. Pur-

A SYSTEMS PERSPECTIVE

Definition, design, and delivery of services for chronic patients is based upon how we think about and conceptualize the multiple issues involved. Our goals in this chapter are to describe some of the ways we find it useful to conceptualize a systems approach; to document an application of a systems approach to chronic patients that can be of immediate and practical use to practitioners, investigators, and managers; and to identify important issues to be examined by others developing programs for the chronic patient. To focus the goals, we will use parts of our experience in North Carolina.

An option in the development of any program activities is to leave the conceptual framework unstated. We believe that to do this creates unnecessary ambiguities leading to minimal program efficiency and questionable effectiveness. We prefer to explicate our frame of reference and believe that general systems theory offers a base from which to develop new strategies for the behavioral sciences which are particularly relevant to human service programs, providing design makers at all levels with different conceptual schemes for the analysis, direction, and improvement of formal organizations whose job is to administer and develop such human resource effec-



posefulness requires continuous interaction between the system and its environment. This includes, therefore, input, that which enters from outside the system, and output, that which goes from the system into its environment. It presupposes that in addition to the openness and the monitoring and information-gathering capability of the system there is an ability to analyze information. Information analysis changes raw, unstructured messages into meaningful and useful information. The process of interrelated, interacting elements moving toward goals, giving internal and external feedback, is called proactive. This is in contrast to the process by which actions are directed at stimuli coming from the environment, which is a reactive process. The thermostat, for example, comes closer to being a reactive system than a proactive system.

To define a patient as a living-person system and as part of a larger system in interaction with other person systems comprising the community, including such formal organizations as hospitals and local and state health programs, is to also be vitally concerned about system boundaries (3). A person, group, or community defines its own structure and identity by drawing and controlling its own boundaries. The exertion of boundary control is a requirement for an autonomous process, a process characteristic of living, open systems. Thus, an individual, whether patient or staff, would be stuck inside a program if he lost control of his boundaries and would lose autonomy as an individual person system. Patient and staff may be in collusion in reference to opening of the boundaries, which prevents change or production of goal-oriented work; the absence of change or goal-oriented work is a cardinal characteristic of a "chronic" situation. Inherent in viewing the patient as a person system and part of the system rather than only raw material to be acted upon by the system means that the system boundary is defined as the population to be served and the population who serve.

1. System Mapping—an empirical determination of the current operating nature of the system.
2. System Design—the determination of the arrangements which are desired.

3. System Engineering—the implementation of new arrangements and augmentation of existing arrangements.

Simply stated, we attempt to answer three questions. Where are we now? Where do we want to go? How do we get there? System mapping includes a definition of boundary. At least four types of boundaries may exist for a service program.

1. The legal geographic boundary, defined by the mandate of the governing body.
2. The existing operational body, manifested by the types of activities or services in which the program staff engages.
3. The potential boundary in terms of the people we wish to serve.
4. The existing boundary in terms of the people currently being served.

Element identification is the process of definition of activity arrangements or units, whether within the formal setting of the hospital or outpatient mental health clinic or whether in other parts of the community. Element examination also includes what flows into it, input, and what moves out of it, output, including economically limited resources, such as materials, money, facilities, staff capabilities, human social status, and information.

A final activity in moving toward a purposeful self-managing system is the identification of the set of arrangements which constitute the human-relating social system of which the "chronic patient," and the program for the chronic patient, is a part and the ways in which each identified element is linked to other elements are determined.

This produces a working model of the existing human service system primary to the program and can best be described as the existing or natural system as opposed to a designed system.

Prior to 1963 in North Carolina, system mapping identified simply a hodgepodge of mental health and related activities not unlike those in any other of our states around the country at that time. There were four state hospitals, all of them receiving patients from essentially anywhere in the state. Similarly, there were three centers for the retarded and a fourth in planning and one alcoholic rehabilitation center, all equally vaguely defined. The only apparent boundary at that time was the legal boundary of the State of North Carolina. In addition, there were a few so-called mental health clin-

A SYSTEMS APPROACH

Activities necessary to move an existing social arrangement toward a purposeful self-managing system can be clustered as:

1. System Mapping
2. System Design



ics dispersed throughout the state within local health departments and three or four child guidance clinics.

The 1963 legislature mandated more systematic planning and program development, which had begun to take place by the time the federal comprehensive health planning laws of the mid-1960s came into effect.

System design, the purposeful setting forth of goal statements and the systematic structuring of alternative strategies for the attainment of goals, created a number of shifts. Two of significance were the shift in viewing the action system as a passive reactive receptacle to viewing it as a system with a population orientation and a shift from traditionally formal institutional responses to a community support and development stance. These are two important boundary defining statements which influenced the design of the action system in North Carolina. The state was divided into four large regions with a regional mental hospital and a regional center for the retarded, and three of the regions with an alcoholism rehabilitation institute. Each of the regions in turn was divided into multiple county areas, based on the population's self-defined natural transportation, shopping, and political interrelatedness. These were established as flexible and evolving boundaries. Initially there were 29 service areas, but these had evolved to 41 by 1970 (5, 6, 7).

Boundary flexibility was exercised in the region which did not have a preexisting alcoholism rehabilitation center, where a systems approach was introduced to the design process of the alcoholism programs. As of 1980, this region did not have a regional alcoholism institute, but rather the mental health and health programs in each area have their own individually tailored programs for problems of alcoholism.

Further evolution of the boundary has been exemplified by the state legislature's creation of a Department of Human Resources but more importantly by agreements and memoranda of understanding which have developed between the formal mental health, health, and vocational rehabilitation organizations; the departments of community colleges, hospitals, and corrections; and other relevant formal agencies at the state and local level, creating administrative arrangements which provide the greatest potential flexibility in the arrangement of resources (17). These relationships have been developed toward the implementation of a population-oriented boundary. Therefore, these relationships include in the definition of population not only the population of hospitals and community mental health

centers but also the population in other formal agencies, such as corrections, and populations less clearly defined, such as migrant and seasonal farm workers, or dispersed unconnected populations.

By conservative estimate, the population in need would include 500,000 adults in North Carolina who experience a significant degree of mental illness. Perhaps 10% of this figure, or 50,000 people, have sufficiently severe mental illness to require a "moratorium" from stresses of daily life. If 10% of these individuals can be classified as being severely mentally disabled, this would be 5,000 or approximately 25% more than the average daily resident population in our four state hospitals. This crude estimation may in fact underestimate the situation.

For purposes of clearer exposition of our example, it is necessary to focus on one geographic subsystem of the total state system (8). Several community areas combined together to form a "region" served by specialized programs at the regional state hospital and the regional center for the retarded. We shall use one of these areas, and one of these institutions. The area is Wake County, a primarily metropolitan area with a population of approximately 300,000 people. This is also the catchment area of the Trentman Mental Health Center Program, one of the earliest and more developed community mental health centers in the state. The regional hospital is Dorothea Dix, which is located in Wake County; this location has been mixed blessing but has facilitated the use of the hospital as a convenient inpatient resource. Thus, we have a subsystem clearly defined by a boundary containing the 300,000 population in the Wake area. In this example, we will be looking closer at the activity elements within the formal institution of the hospital and the elements within the formal organization of the mental health center, both acting with the population of Wake County.

In the past, a variety of administrative and heroic individual efforts had been made to develop meaningful interconnections between the formal hospital agency and the formal mental health center (9). However, "chronic" institutional rigidities in both hospital and community continued. Stimulated by a proposal that would integrate fiscal responsibility for all patient care, both hospital and community, at the area level, a regional committee was assigned to study this possibility. The conclusion, in essence, was that the problems, cost, logistics, and personalities of such an integrated effort far outweighed the potential benefit that might be realized in patient care. This certainly raises a serious question in our minds as to the cost benefit of continuing agency reorganization at county, area,



regional, state, national levels without a more systematic approach which would include a cost-benefit analysis. The recommendation was to continue current funding operations but maximize and improve upon coordinating mechanisms between the elements.

The recommendation was assigned to a team for development, and, in the consideration of the area's system, conceptualization included the identification of three important elements: the administrative, the technical, and the treatment or action element. Each element has appropriate tasks and appropriate information-processing activities. As a first step, the technical element of the Wake/Durham system undertook an examination of the existing services by studying the 78 discharged hospital patients. General important observations were made (10). People learn to be chronic patients and receive reinforcement for the chronicity through the availability and attention to them of formal institutional care, whether it be in a clinic or a hospital. Much of the focus with chronic patients is on the failure of patients to take their medicine, to find a good job, to find a good place to live, to get into a day program. Little of the focus of current treatment and deinstitutionalization is on training and altering the responses and expectations of the chronic patient. There is little or no accountability for chronic patients and their reappearances from formal institutional care. Indeed, the chronic patient is a person who has minimal functional connections with other person systems. Professionals are trained to care for and to provide treatment for already enrolled patients, both inpatient and outpatient.

More specific observations were also made. There was no one portal of entry into the hospital. Half of the admissions came from sources within the county other than the mental health center; thus, the center never knew about many of the admissions to the hospital. There was no joint hospital/community goal planning about what was to happen during hospitalization. Wake County patients were placed within many different program activities and locations at the hospital, making tracking, coordination, and treatment planning even more difficult. Perhaps due to the proximity of hospital to community, very brief admissions were an inherent problem, with some patients signing in and out of the hospital in a matter of hours. Wake County patients left the hospital from many different programs within the hospital. There was no one portal of exit. This left little or no opportunity for any joint progress review or goal and treatment planning for continuing care by hospital and center staff. There was a four-to-six-week lag between time of discharge and the patient's initial appointment at the center for aftercare or continuing care.

services. Even after the patient was seen, information from the hospital was often not available. During one 16-week follow-up, one-third of the patients who were referred for continuing care failed to follow through at the clinic. It is important to recognize that these observations were made in organizations which had implemented a process of self-scrutiny and which are party to a general systems approach at the state level. The process of implementing a systems approach had occurred intermittently over a period of ten years. It was initially stimulated at the state level. However, here as well as in other examples, it was clear that the impact was primarily that of administrative rearrangement rather than patient benefit, with business continuing as usual.

In this instance, two middle managers representing both the hospital and the clinic (technical element) took the lead in the initial planning and development of a clinical liaison team, thus implementing an action or working element of the system. The liaison team was made up of a social worker from the hospital and a psychiatric nurse from the center. Each was sanctioned to spend 15 hours a week in liaison activities. They carried additional duties within their own agencies. They were charged with several responsibilities including identifying and contacting all patients admitted to the hospital; maintaining tracking data on these patients; participating in joint treatment planning with the admission staff; actively participating in discharge planning, including meaningful contacts with families and patients toward involvement in posthospital continuing services; facilitating the availability of appropriate program and policy information (e.g., "rules" of how each program conducted its business) to both hospital and center staff; facilitating the availability of hospitalization information for the patient's initial aftercare appointment; providing short-term transitional services for high-risk or less stabilized patients who need the continuing contact between the time of discharge and the initial aftercare appointment; and contacting discharged patients who failed to keep aftercare appointments.

Sanction was sought and received from top management, the administrative element, of both the hospital and the area mental health program, and each made a commitment of the recommended resources. Thus, initial administrative-level sanction and nourishment was identified as important and made available.

The middle-management level, the technical element of the system, provided a strong linkage between the day-to-day patient care activities of the liaison team, the action element, and the more system-wide concerns of the administrative element, top management.



This helped facilitate a more objective definition of problems and increased the efficiency of both the administrative and clinical tasks.

Initially, the boundaries and functions of the administrative and action elements were not clearly specified, resulting in confused connections, expectations, and actions. As a result, administrative issues and decisions were often inappropriately imposed and thrust upon the action component for problem solving, or for carrying out the decision. Oftentimes, patient-relevant decisions which continued to be bothersome were inappropriately imposed and thrust upon the administrative element. It became necessary to clarify ambiguities in the structure and to separate out, but appropriately link for problem solving, administrative issues from treatment system issues, and within the treatment system issues, differentiate between action issues and technical issues (16). For example, information sharing between two service agencies is an administrative issue and not a treatment system issue, but often the energy and affect that goes focused around information sharing is more appropriate to treatment issues. Policies on information sharing oftentimes act as lightning rods for an obscure discussion of the treatment issues. Therefore, to intervene in such a system, it becomes very necessary to clarify ambiguities in the structure and to separate out administrative and treatment system issues, so that thinking and emotions can be routed appropriately. Major problems are likely to occur if administrative elements try to problem solve around clinical elements issues. Both clinical decisions, similarly, do not easily convert to clinical action. Chaos results when boundaries are blurred between political, administrative, and clinical elements. Maintaining such functional boundaries and the routing to the appropriate problem-solving element is a chief function of the technical element of the system. Such functioning is vital in the maintenance of the original trust and spirit of cooperation. Through experience, it was learned that if tension (usually in the form of suspicious, paranoid behavior) was increasing that the routing function needed to be focused upon.

As the administrative, technical, and action elements were clarified and made functional, patient information became even clearer, reinforced by the implementation of a plan for one portal of exit. Three subgroups of chronic patients can be conceptualized and identified: the stabilized, long-term hospital patient resettled into a community setting; the in-and-out patient with multiple admissions to a hospital; and the “treatment failures” who never leave inpatient care but who go in and out of psychosis while remaining in the hospital. Problem solving with each of these subgroups necessitates different

For the stabilized long-term hospital patient, administrative strategies linking up a support system—nursing homes, boarding homes, aftercare visits—with minimum treatment strategies, such as medication maintenance and consultation with the staff, are often times sufficient. For the in-and-out patient, the strategies become more complex and implementation more difficult. The administrative strategies include closer collaboration between the hospital and the community around such issues as criteria for admission, readmission, and discharge, and the design of ways to implement joint treatment planning. For example, in the Wake/Dix project, a number of patients have been identified as “causing more problems” than others. For these patients, staff from the mental health center will come to the hospital for planning conferences, and a treatment plan will be jointly defined. Therefore, there is one plan for the patient rather than a community plan and a hospital plan. This one plan comprises the discharge planning for follow-up services, including whatever agency—mental health, social service, or rehabilitation—may have the relevant activities. Such a plan will often specify under what conditions the patient is to return to the hospital (13, 14).

For the “treatment failures,” a more critical definition of administrative and treatment interventions is necessary. We are faced with a most difficult job with this group in clarifying goals and setting priorities. Staff experience fusion in their thinking and emotions. Administrative concerns and issues may serve as a readily accessible scapegoat or smoke screen for more painful core feelings. For example, the hospital may become involved in making accusations to the community about its lack of interest in developing alternatives in a community setting for these patients, or the hospital may blame the mental health center for not developing appropriate alternatives to “office” support and treatment. A community can become involved in similar projections, accusing the hospital of simply wanting to get patients out to the community and to keep them out. The question becomes one of how to improve the problem-solving ability, functioning, and work at this “treatment failure” level; that is, how to get staff to conceptualize a treatment plan for a treatment failure.

If a chronic patient is conceptualized as a person/system functioning and interacting within a context or environment, then the definition of the problem of chronicity is a breakdown in these interactions. The hospital and center have a major share of looking at this breakdown and in the development of a problem-solving action response calculated to increase interconnections between the patient and other persons. The appropriate place to start is not with the



identification, and training in skill development must be stressed. For example, a characteristic of chronic patients is that they are cut off from their family system. The system boundaries are closed. Therefore, a first step is to reengage families or surrogate families as a support system in the problem-solving effort. A by-product of such an effort is to decrease the isolation of both the patient and the staff with the family becoming an ally. Often, there is a lack of agreement over a treatment plan, but more realistically, there is a deficit in the staff on how to conceptualize an appropriate treatment plan for these very difficult patients. In such a situation, the staff feel the inadequacies and become nihilistic, which is reflected in their verbalization and attitudes toward these patients; this leads into a vicious circle: symbiotic, self-destructive set of relationships between staff and patients, often characterized by outbursts of violence. As well, there is often projection onto administrative elements and individuals, such as the hospital director or the secretary of the Department of Human Resources. Therefore, solutions have to start with the conceptualization for treatment planning rather than with the assumption of business as usual.

Teams and staff members must learn to conceptualize the dynamics of a support system in the community. For example, staff usually do not know how to involve family members and patients in a treatment plan. A treatment plan is something that is "done on the patient; the family may or may not find out about it, but there certainly is no joint planning." The family must be seen as a resource (75). Recently, within a particular program for chronic patients at Dorothea Dix Hospital, staff members decided to invite cutoff relatives of patients to the hospital. Fifteen invitations went out to families that had visited their relatives during the year. The staff was very much surprised when positive responses came from 100% of the inquiries. An important question is, why was the staff surprised? This group of relatives has continued to meet and has provided a strong problem-solving resource to the staff during the times of crisis the program has experienced. This example can be generalized and used in other areas of the community support system. Dynamics of a support system, the relationships among the elements of the support system, can be specified, discussed, and made rational and operational.

A further example relevant to these difficult patients has to do with the violent and threatening behavior, or the fear of such behavior, which is frequently a part of the symptomatic picture and one which potentially involves family, police, and community, often

escalating into the political system. Therefore, quite specific goals and the actions to be taken must be spelled out in advance. Examples of important considerations include the conditions under which the patient will return to the hospital, or be taken to jail, or perhaps to the mental health center, or even to the home, if the first contact is the police. When the plan is put into action, it must be monitored to prevent potential staff anxiety, whether at the clinical or administrative level, from circumventing the specified original plan.

Feedback regarding accountability issues in a design where an action component is working directly with clients around specific goals provides a number of pieces of information (11, 12). A single and direct point of contact between case managers and patient provides an accountability relationship between the patient, the action manager, the administrator manager, and the system manager. The set of services required by each client is developed as an integrated set and provided within the existing administrative relationships or, if not possible, then the appropriate rearrangement of resources needed are brought to the attention of the administrators. As a plan of services for each client evolves, some generic steps or sequences are identified which can be called the patient pathway.

PROBLEMS TO BE ADDRESSED AND ISSUES TO THINK ABOUT

We have proposed in this chapter the use of systems theory in approaching the issue of chronic patients. We have shared portions of our observations and our own applications. Innumerable considerations have arisen which we would like to now identify and which must be deliberately considered. They will arise in the process of development of activities around chronic patients. The following is a sampling of these issues:

1. Conceptual framework and definitions of those involved in administering, advising, and providing such activities.
2. Application of general systems theory approach to chronic patients.
3. Current status of the target population.
4. Goals.
5. Strategies and steps to be taken.
6. Boundaries—how structured and how open?
7. Input and output.
8. Current formal activities and their relationships, if such



9. Development of connections between agencies and staff.
10. Identification of the administrative element and its appropriate level of concerns and tasks.
11. Identification of the technical element and its appropriate level of concerns and tasks.
12. Identification of the action element and its appropriate level of concerns and tasks.
13. Training program for patients, families, and staff.
14. Accountability.
15. Single portal of entry and exit, and tracking system of patient movement.
16. Unified information system regarding admissions and discharges.
17. Unified goal and treatment planning.
18. Unified progress review and follow-up planning.
19. Monitoring and proactive follow-through.
20. Reorganization.
21. Interagency teams.
22. The place of the family in the process and in the system.
23. Administrative commitment of resources and assignment of priorities, and continuing nourishment.
24. Patient characteristics and patient pathways.
25. Scapegoating, escalating triangles.
26. Patient/family/staff interaction.
27. Staff training.
28. Patient interpersonal linkages.
29. The support system.
30. Monitoring of the whole system.

a response system must be defined, along with their interconnections. Attention must also be given to the information and skill base of the staff, their training needs, and skill development; to the interaction of patient behavior and the actions and behaviors of others, whether in the community or by staff and program; and to development of the support system, including the family, neighborhood, alternate-living arrangements, and work arrangements, and including all the persons in the client's system which, although preexisting, may be alienated.

In summary, commitment of resources is essential to the consideration of the problems of chronic patients. However, merely obtaining more of the existing resources will not lead in itself to an improvement in problem solving. Quite the contrary, it may lead to more despair and more chronicity! An important starting place in approaching the chronic patient is the consideration of how we think in reference to the chronic patient. Clarifying our definitions and concepts is essential, and concepts of general systems theory and family systems theory can bring possible solutions to old problems. We have shared our conception of a systems approach; we have shared, in part, segments of our application of a systems approach to chronic patients; and we have identified important issues to be examined by others developing programs for the chronic patient.

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THE AMERICAN PSYCHIATRIC ASSOCIATION

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Needs, Priorities & Strategies
Delivering Mental Health Services:



The seal of the American Psychiatric Association is circular. It features a profile of a person's head facing left, with the name "BENJAMIN RUSH" inscribed above it. The year "1844" is at the top and "THE AMERICAN PSYCHIATRIC ASSOCIATION" is around the bottom edge, separated by stars.



DELIVERING MENTAL HEALTH SERVICES

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Nicholas E. Stratas, M.D.
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Delivery
A Model for a Psychiatric Service
Discussion
Retarded
Gaps in Services to the Mentally
Disabled
Francis A. J. Tyce, M.D.
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Deliverable System and a
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10.

A Systems Approach to Mental Health Services Delivery

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Physicians and administrators at all levels in mental health programs are in danger of being overwhelmed by the complexity of the problems posed by the service gaps we have been discussing. New conceptual models, new styles of thought, new decision tools are needed. Systems theory offers a new strategy for the behavioral sciences, which is particularly relevant to psychiatric care needed. Systems theory offers a new strategy for the behavioral sciences, which is particularly relevant to psychiatric care and mental health delivery systems. It offers one way of seeing all parts of the whole relating and interacting in a purposeful manner. A system is defined as a set of elements or parts of units that have definable interrelationships; a change in one element causes a flow of matter, energy, or information into one or more of the other elements; this flow causes change in all the elements of the system. It is possible to consider the interaction between mechanical, physical, social or personal elements, and to focus upon relationships that may exist between parts of the system. There are both open and closed systems. A closed system operates with fixed relationships, requiring little or no outside intervention and tends to lose its essential organization if it is disturbed. A clock is a simple mechanical example.

An open system interacts with its environment as an essential part of its own survival. There are gradations between totally closed and open systems. Models for the Applications of Systems Analysis to the Delivery of Mental Health Services, read before the annual meeting, American Orthopsychiatric Association, Chicago, 1967.



Health

Closed, mechanistic systems and totally open systems; these gradually depend upon the amount of feedback the system can receive. Feedback is the capability of a system to use information about the impact of changes that result from its own past and present behavior. A further refinement is needed to clarify: morphostatic systems, while they receive feedback, maintain their given form or organization; morphogenic systems change or alter their structure as they receive feedback. However, an open system is not necessarily morphogenic, because its ability to obtain information from the environment does not necessarily mean that the system can change its form. A heating system, for instance, controlled by a thermostat, is an open morphostatic system that uses information to maintain a given temperature, but the system itself does not change its structure. On the other hand, a social system, such as a school or a hospital, or a person, is an open morphogenic system that can use information both from its environment and from term that can use information both from its environment and from a school or a hospital for its goals — results from its use of the input. We now make two important assumptions: that any social organization, including a mental health system, can be analyzed in terms of its ability to operate as an open morphogenic system; and that the organization is purposeful if it is directed toward certain defined goals.

The goals of a system are its reasons for existence. Continuous interaction between a morphogenic system and its environment is needed to accomplish the system's goals. This brings us to "input," that which enters the system: it may be time, money, effort, supplies, people, or information, depending on the system and its goals. The "output" of the system — the account of its goals — results from its use of the input.

It is necessary now to define the system boundary and to

Goffman, Irving: Asylums—Essays on the Social Situation of Mental Patients and Other Inmates. Garden City, N.Y.: Anchor Books, 1961.



A Systems
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" Ibid.
* In essenc-

, DuPont, H.: Systems Theory Applied to a Mental Health Program, read before the Southern Regional Conference on Mental Health Statistics, Fort Lauderdale, Florida, October, 1967.

We may not safely assume that all existing programs or patient-advocates would contribute to the goals of the system. More meaningful terms, Patient-advocates, patient-advocacy, and more meaningful terms, the system can define its relationship to society in the system, the system rather than as raw materials to be operated on by health system rather than as raw materials to be considered as elements of the mental as the input. If clients are considered as elements of the boundary, not to note DuPont's definition of the population as the boundary, not for children, homes for the elderly, and so on. Here it is important may constitute elements — patient, outpatient, residential care of the total system; or all the services provided for the community provide mental health services may be considered as the elements physical entities. All the agencies within a geographic area that may constitute elements of the mental health system are not necessarily their colleagues in other community systems.

When mental health system workers offer consultation services to health system plainly overlaps into the environment, especially those of other service delivery systems. However, the mental grams, or school integration, because such activities are the functions of school integration, say, urban renewal housing programs, theoretically engage directly in, say, urban renewal housing programs that help improve aspects of its environment, it cannot late the environment. That is to say whereas the system may offer by the behavior of the system, the system cannot directly manipulate mechanicalisms. But although the environment may be influenced will affect the system — hence the need for monitoring and adapt its environment in such a way that any change in the environment further and say that the operation of the system will be related to certain populations within a certain geographic area. We can go is purpose as that of delivering certain mental health services to gram may be viewed as an open morphogenetic system. We define and movement over time. Obviously, then, a mental health program among the elements; they are dynamic and are subject to change are large and contain a great number of elements; they are complex, and are made up of many interrelationships and interactions which we assume that mental health systems by their very nature exists only to help us understand the system.

recognize that everything outside the boundary constitutes the environment. The system boundary of a mental health system may be defined by the geographic area it serves, the types of service it offers, or its target population. The boundary is arbitrary and is not only to help us understand the system.



* In essence, we are discussing the concept of management by objective.

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Goals must not be confused with the methods devised to achieve those goals. To have ten workshops of mental health during a year is not a goal, but a method, an activity designed to achieve goals.

To permit continual evaluation, goals must be clearly stated. It is not enough to state such general goals as "to prevent mental illness" or "to remain responsive to public needs," or "to provide health education." Instead, we must state each purpose specifically, as "...to reduce the incidence of drug addiction by 25 percent during the coming year." Such a goal necessitates a clear definition of drug addiction, of the population at risk, and the assignment of a numerical value to the existing incidence. Clearly such an approach calls for us to collect much of the data that is available at universities and research centers. It also demonstrates that there are too many ambiguous definitions and gaps in our knowledge; these gaps indicate some needed and relevant research.

A rational system arranges its elements and components in a purposeful, orderly way. The interrelationships of the elements and components are illustrated by the flow of information, people, and resources among them. The dynamics of the system can be observed by looking at the changes that take place within it over a period. Changes are continual, as one element or component alters and affects others through the internal linkages. The system will be a moving, changing configuration, which at the same time

System output equals program output (services rendered as classes in application server)

System input equals program input (personnel, funds, services, treatment methods).

System purpose equals program objectives
System boundary equals population to be served

Subsystem equals superprogram
Subsystem equals organization

System equals total program

ment of disarticulation. Duport⁷ outlines how systems concepts may be applied to mental health organizations as follows:

relationships exist between the compound pairs - in some cases there is not only unwarranted but that has led us to our present predicament.

structures concurred with many of the assumptions that were made in the definition. To do so implies that a common purpose and interrela-

...these concerned with mental health are "systems" by our own definition.

A Systems Approach 93

Nicholas and Harold Holder. A Systems Approach to Human Problems. In preparation.

The community system also has a role to play in the development of the individual. As the individual (person-system) and others receive reinforcement, the behavior or cause its cessation, or no intentional response will be a negative response designed to decrease the frequency of the behavior. If the behavior is unexpected and unacceptable, there will be either a negative response (remorsement) will be given. It can be other hand, if the behavior is expected and acceptable, a reward-intervened. If the behavior is acceptable and acceptable limits, expectation of the person-system involved to restore the behavior of the person-system, it will take action to restore the behavior of the person-system, it will have a high tolerance for deviation, others a small tolerance. If the community detects an unacceptable deviation, it will take action to restore the behavior of the person-system, it will have a high tolerance for deviation, others a small tolerance. Some communities have a high tolerance up to a certain level of tolerance. Some communities and variation up to a certain level of tolerance. Some communities and community system, however, can respond also to deviation role-behavior to assure their satisfactory performance of the tasks.⁸

The community must provide people with sufficient benefits to induce them to play the needed roles, and must also monitor their participation — i.e. security, food, housing, social status, and so on. Such roles and derive in exchange the benefits of community participation, citizen; the individual will carry out the tasks assigned to payer, citizen; the individual will carry out the tasks assigned to system may occupy many roles — i.e. father, wage earner, tax-referee to other roles and to an assigned set of tasks. A person-

(considered as person-systems) occupy. These roles are defined by basic building blocks of the community are the roles that people respond to external and internal pressures. In this definition, the third, it must maintain the ability to adapt and change in related environment to enable exchange with its environment; and tasks necessary to organize goods and services for exchange with the larger environment. Services offered to the people of the community and morphogenic system, whose mission is to survive within a similar fashion. The general community can be defined as an open basis, we should define the general community it serves in a change with the larger environment; second, it must maintain a desirable level of organization or cohesiveness to carry out the three goals: First, it must produce goods and services for ex-

To fulfill its mission, i.e. to survive, the community must meet

nity by the community are designed to further this survival.

If we are to consider a mental health program on a systems basis, we should define the general community it serves in a similar fashion. The general community can be defined as an open and the need of elderly people for purposeful, useful activity.

goals: a good example is the foster-grandparent program, which activity was planned. Sometimes activities may meet multiple simultaneously meets the need of retarded children for affection and the need of elderly people for purposeful, useful activity.

reach some goal that should have been identified before the



The first, the economic institution, functions to produce goods and services for exchange within the community's environment, which enables it to receive goods and services in return. The second goal, functional cohesiveness, is met through the family, an institution which produces and maintains new individuals or person-sytems. The religious institution provides values and goals to make community rewards and punishment suitable and salient responses to role-fulfillment. The educational institution trains persons to perform role-tasks. Finally, the welfare system (not consisting of social welfare agencies only) maintains the security and well-being of persons or human services institution (not consisting of social welfare systems and community property, and thus helps to maintain systems and community property, and thus helps to maintain

Only by conceptualizing the general community as a system within a larger environment, and the mental health system as one of the community's subsystems can we begin to take a systems approach to the delivery of mental health services. But first we must put mental health into its proper community context.

Every community has six institutions by which it meets its three goals of survival, functional cohesiveness, and viability for change. These are the economic institution, the family, the religious community, the educational system, the welfare services, and the political institution.

Specific community agencies, such as law enforcement bodies, are often assigned to control deviancy. Historically, mental health organizations had some responsibility for social control. Persons who were deviant and hence disturbed, were excluded from the community, labelled disturbed or mentally ill, and perhaps carried given way to a more positive desire to enhance mental health. From the centralized operation of the state hospital, the mental health system has moved closer to the community where it offers comprehensive community treatment programs in readily accessible facilities. The move is more than just transferring hospital treatment to a smaller, more central facility; the mental health facility has become an active participant in community matters, and thus comes under the direct control of the community system. As such, it is assigned the task of maintaining "person-systems" in their roles, performing their assigned tasks in acceptable ways within the total community system.

responses and respond according to their own set of expectations, a cycle of response and counter-response occurs.

A Systems Approach



If an individual in Phase I experiences stress, social disrupt-
tion, or transactional breakdown (no master what the situation)
and begins to misuse people, alcohol, or drugs to relieve the stress
he experiences, he moves into Phase II. In Phase II, social disrupt-
tion involving family, friends, or others may lead to a crisis, a
disruption so severe and intolerable to the individual or to others
that public action is taken. The individual now moves into Phase
III, where a sanctioned institution or person-system — a hospital
or a physician — labels him mentally disturbed. Legal interven-
tion may occur through the law enforcement system; medical
direction, counseling, therapy, or any combination will be offered
by the medical system, especially if the individual is acutely
upset or intoxicated or extremely upsetting to those around him.
In both Phase I and Phase II there are alternatives, in that the
individual may become able to again control his behavior, and
thus revert movement into the next phase of disruption. Once an
individual has reached Phase III, the continuation of the stress he
is experiencing will determine whether he moves back into
Phase II or Phase I. If the stress continues but no amelioration has
proved effective, the individual will return to Phase II, where

of mental illness is applied.

The approach may be summarized in three basic phases:
Phase I — socially acceptable behavior, with adequate role-per-
formance; Phase II — dependence behavior, in which the individ-
ual misuses people, alcohol, or drugs to obtain relief from his
stress; and Phase III — the public crisis point, at which the label
of mental illness is applied.

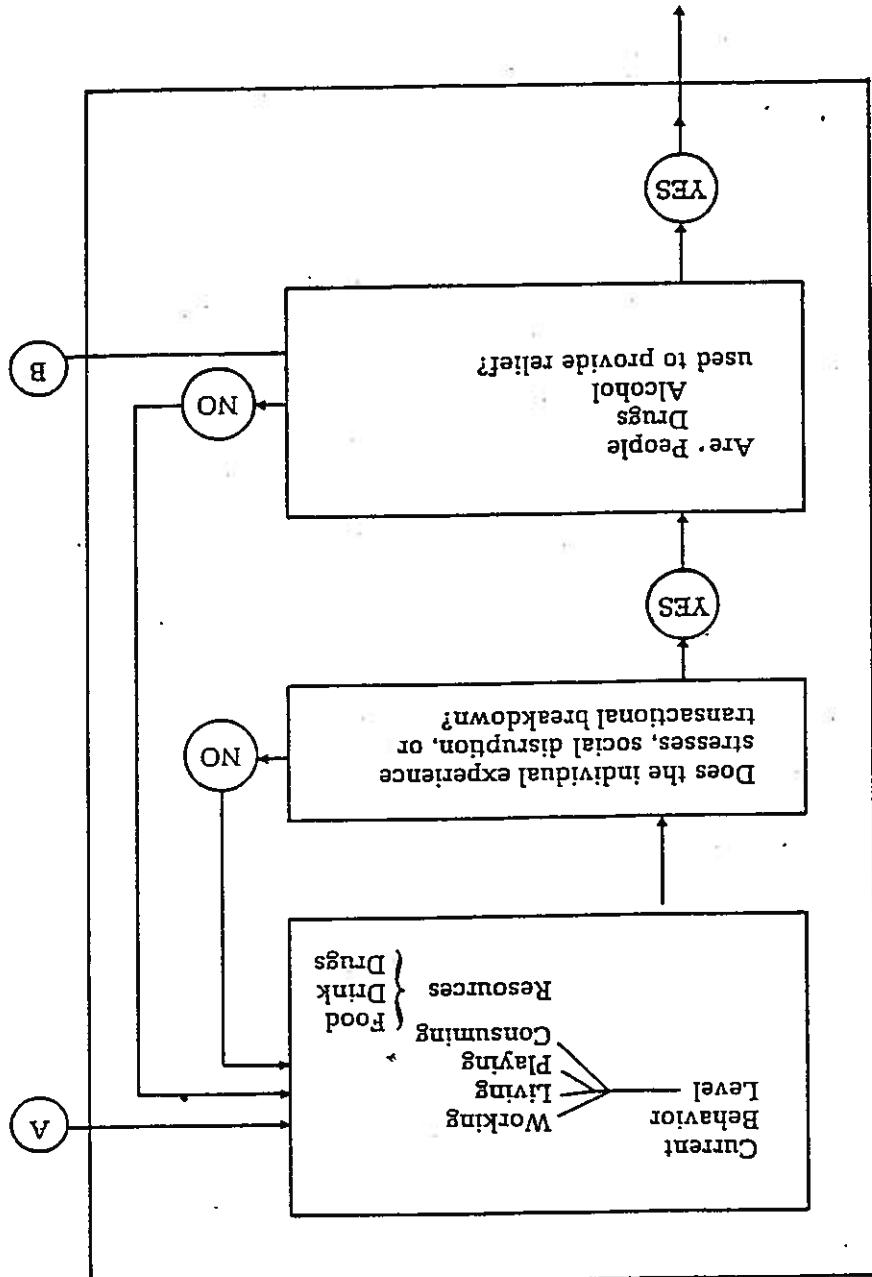
3 illustrate disability, disruption, dysfunction, and the public ac-
tuarial transactions and in using alcohol or drugs. Figures 1, 2, and
then defines problem behavior as a systems outcome, representing
and not as a systems phenomenon. The following concepts
nity. Hitherto problem behavior has been viewed as an individual
behavior in accordance with the behavior acceptable to the commu-
nity. In their roles, it must first define problem be-
prove their role performances, it must maintain adequate systems to im-
communitiy is to operate upon inadequate person-systems in the
If the primary assignment of the mental health system in the
regulatory function for the other institutions.

The community's third goal — to maintain viability for change
— is the responsibility of the political institution, which serves a
adequate role performances. Mental health as a community par-

ticipant is a component of the welfare institution.



Figure 1



Phase I Socially Acceptable Behavior

Figure 2

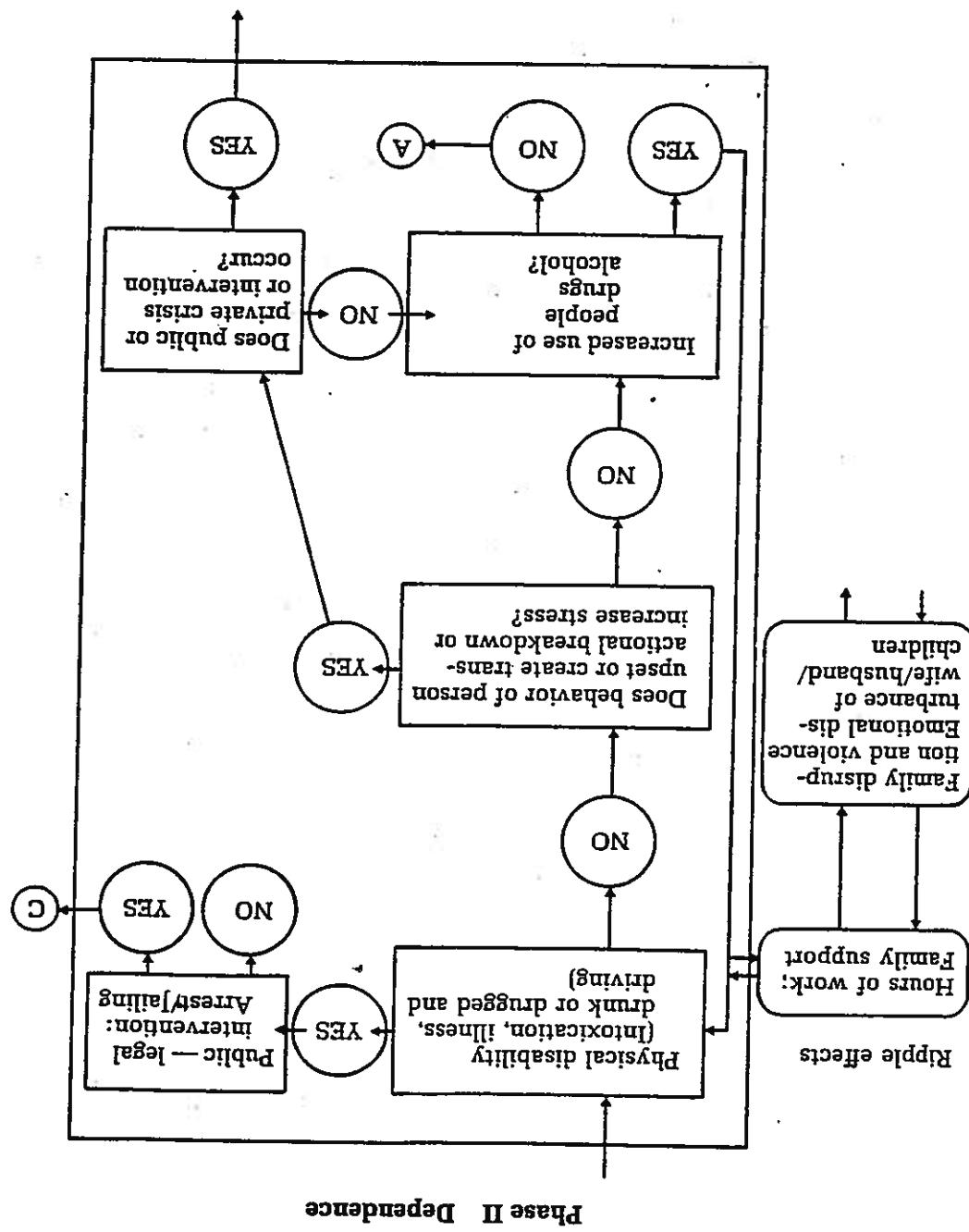
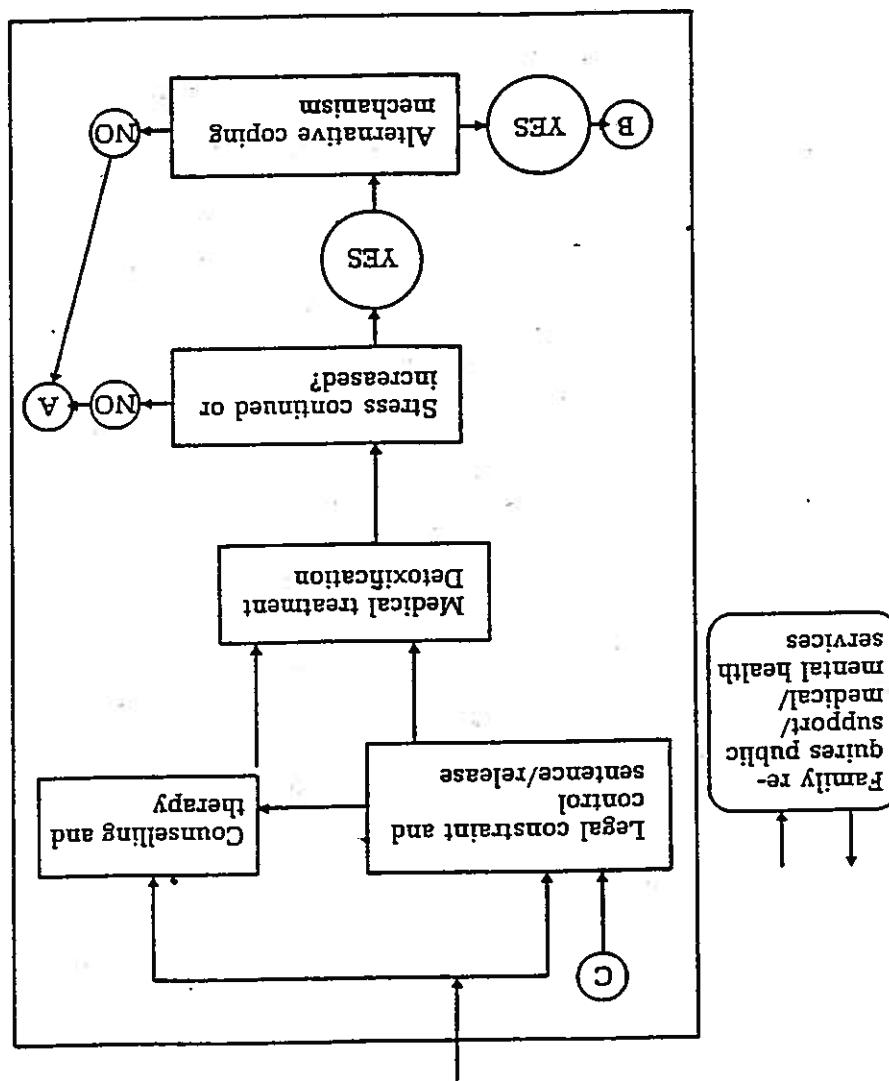




Figure 3



Phase III Public Crisis and Mental Illness Labeling



presumably he will continue to exhibit dependence behavior and possibly will experience another crisis intervention. If the stress can be sufficiently reduced or the individual can use alternative methods of coping with it, he will move back to Phase I — acceptable social behavior, in which presumably he will function again as an adequate person-system.

Most communities have developed formal systems or net-work to control deviancy when it reaches Phase III. Figure 4 illustrates one such network, which was set up in a region of North Carolina for problem drinkers. The project is unique in that it uses the systems perspective just described to deal with alcoholism and problem drinking.

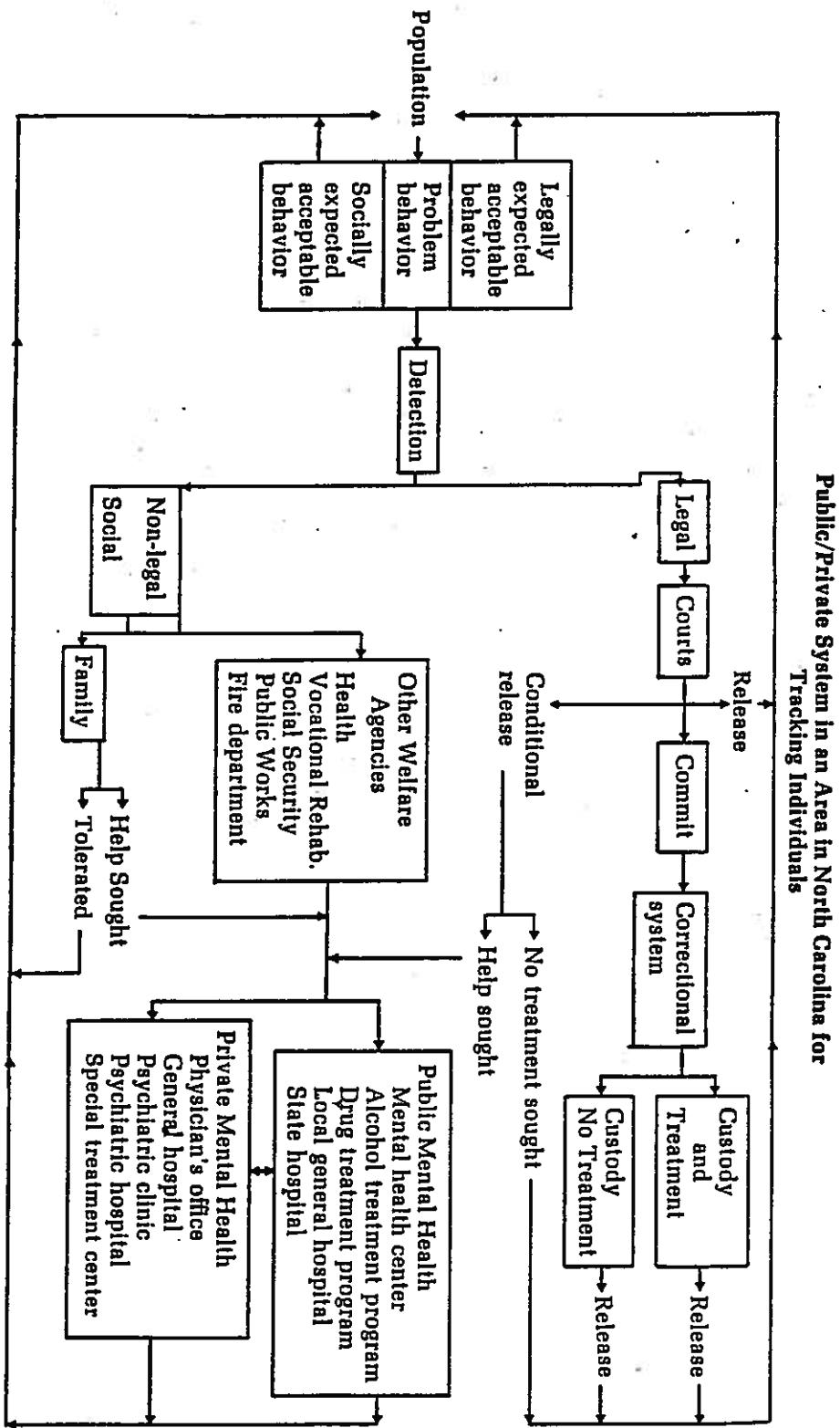


Figure 4



A Model for
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In essence, the area program concept, which began evolving in
1963 when federal legislation offered grants-in-aid for state-wide
mental health planning, embodies many of the principles we have
been discussing. The responsibility for providing the resources for
each community to define and meet the mental health needs of its
each community to define and meet the mental health needs of its
been discussed. The responsibility for providing the resources for
each community then develops its own area program, and is in itself
a catchment area. Each original state mental health plan bases its
plan upon populations between 75,000 and 200,000 in an endeavor
to increase the comprehensiveness, continuity, and effectiveness
of the services it offers (output).

Each area program uses four basic resources, in addition, of
course, to the private sector: the community mental health center,
the geograpic unit of the regional public psychiatric hospital, the
regional alcohol rehabilitation program, and the regional center
for the mentally retarded. The total program is administered by a
team of psychiatrists, social workers, psychiatric nurses, and
director from one of the mental health disciplines, supported by a

A Model for a Mental Health Service Delivery System and a Discussion



The primary goals of the area program are to identify the needs and to develop and blend available resources into a relevant, responsive program. The area mental health board, consisting of both consumers and professionals, may work in more than one of the facilities and programs in the area.

The philosophy underlying the concept of area programs was that they would bring about better use of existing resources at state and local levels. It would integrate state and community programs into a unified mental health system and would ensure that all mental health professionals were appropriately represented and utilized in all mental health programs. It would provide a means whereby local government would participate in determining the need for and allocation of mental health resources; and it would provide a mechanism for allocating state and local mental health funds according to the needs of the area. In all these endeavours, the area programs have indeed succeeded admirably.

Programs at the state level have used various ways of describing the elements and components of their mental health delivery systems. Some have used the term outpatient services or the service provider — psychiatric hospitals, public mental health centres, private general psychiatrists, other professional workers, private or public charitable hospitals, public mental health clinics. Another way of listing characteristics is through activities — long-term or brief-term outpatient services; partial day or night hospitalizations; inpatient hospital treatment; emergency treatment; consultation; education, and interaction between staff and community members to share information; training and education; representation to evaluate.

The philosophy underlying the concept of area programs was that they would bring about better use of existing resources at state and local levels. It would integrate state and community programs into a unified mental health system and would ensure that all mental health professionals were appropriately represented and utilized in all mental health programs. It would provide a means whereby local government would participate in determining the need for and allocation of mental health resources; and it would provide a mechanism for allocating state and local mental health funds according to the needs of the area. In all these endeavours, the area programs have indeed succeeded admirably.



The linkage between available scientific information and its practical application can be strengthened through arranging for all training and research institutions in an area to serve all other academic institutions providing mental health services. The task of the practical application can be strengthened through arranging for all training and research institutions in an area to serve all other academic institutions providing mental health services so that it

callly identified and related to the other services in the area. even a state-wide plan, provided those arrangements can be logically grouped together, perhaps regional arrangements need not be excluded from a larger, perhaps areas can lead to regional administrative planning. Special re-able catchment population areas; local grouping of catchment administrative arrangements can then be based on manageable needs.

Generic and categorical systems must be examined in relation to local needs, and resources of manpower and money made available so that the question of whether to have one or both types of system will depend upon feasibility, economy, and local needs.

through the elements of the system. These contracts must include statements about goals; the people to be served — described by numbers, types, ages, and components; and the manner in which patients should flow needed programs; and the manner in which patients should flow clear contracts must be drawn up among all elements and components; these contracts must be established, involving a totality of services. Once the inventory is established, regulated to flow steadily toward one main purpose — that of dealing multiple characteristics of the system so that they can be and the tracing of clients through them will help to rationalize the initial inventorying of service elements and components.

The initial inventorying of service elements and components facilitate such a flow of information. Another unit until exit is approached. The flow of information between system and community must also be purposeful. Including the target population as an element of the system will do much to their system career to assure proper flow from one element to another unit through a flow of information by all service providers throughout the system when they enter and are followed throughout entry and exit points, so that individuals are picked up by the information system at all information points, tracking standards, leaving out major referents, the major difference being involves the pooling of all information by all service elements, tracking can enter or leave through any number of service elements, tracking are the intake and exit systems. Whether patients cross into the system at specific entry and exit points or whether they monitor patient movement between service elements. Vital to this every system through some administrative Geiger counter that can monitor patient movement between service elements. Vital to this tracking are the intake and exit systems. Whether patients cross monitor patient movement between service elements. Vital to this every system through some administrative Geiger counter that can monitor patient movement between service elements. Vital to this tracking are the intake and exit systems. Whether patients cross into the system at specific entry and exit points or whether they

so that intelligent joint decisions can be made.



interlocking groups of committees can consider the common problems of various catchment areas and thus clarify relationships and strengthen linkages. Clarification of role will serve to clarify the needs of the population.

can help translate the information it has into programs to meet the needs of the population.

Interlocking groups of committees can consider the common problems of various catchment areas and thus clarify relationships and strengthen linkages. Clarification of role will serve to clarify relationships. At the individual, local, and county levels, activities would be to establish goals and deliver services; at the state level, the activities would be to set national objectives, standards, and priorities.

Whether we are trying to create a centralized or a decentralized system is more or less irrelevant, if we understand their different emphases. In a centralized system one element plays a major or dominant role; in a decentralized system, there is no leading element, and control is spread widely among all the elements. Our concern, therefore, is not one of centralization or decentralization. The model we have described partakes of both. Our problem is to create clarity regarding the elements of the total system and the relationships among them.

The use of the area program concept helps improve planning because goals can be set to meet the needs of local populations. Once local goals are set, priorities can be established on a regional or statewide basis — the summation of area goals, with consideration given to broad state policies. National goals can be established through the summation of area and state goals and priorities. We plan, in short, from the particular to the general, and from the local to the national.

action local both made action : the low and : de- com- shed, : de- in be naliize inents : the ich to ent to : the : they : cross to this : dehi- : bat can : large, : ser- : ces 105 105 A Model for a System



Authors of Resource Papers



Journal of Psychopathology, Vol. 115, July 1958, pp. 1-17.
chiatic Association in Relation to American Psychiatry, American
-H., S. Solomon, The Presidential Address: The American Psy-
chiatric Association, 1960.

Today the hospitals are coveted as the major and, in fact, the only "new" source of funds for developing additional community mental health programs. Similarly, almost all the state hospital property has risen in value, land that was considered sufficiently rural or isolated from the community is now frequently valuable. Some state hospital buildings are being appraised for other purposes, such as community college, housing for the elderly, and nursing homes. Equipment and furnishings are not always found to be absolute and unwanted.

Now, 19 years later, the "bankrupt" state mental hospitals continue to exist. As isolated delivery systems they should be phased out as soon as possible; as part of a unified system of services, they will continue to play an important role in the care and treatment of the mentally ill. Their future should be considered only in the context of a unified system, and strategies must be developed for including them.

Since the mid-1950s, there has been a steady decline in the number of patients in state mental hospitals. In 1958 Harry Solomon, M.D., president of the American Psychiatric Association, described large mental hospitals as "antiquated, out-moded, and rapidly becoming obsolete." And concluded that "They are bankrupt beyond remedy. I believe, therefore, that our large mental hospitals should be liquidated as rapidly as can be done in order to end progressive fashion."

It is, generally speaking, a medical and surgical hospital, sheltered workshops, and rehabilitation centres for alcoholics, addicts, or criminals offenders, as well as psychiatric treatment centres for children, adolescents, and adults.

There are a dozen states with one mental hospital, but there are others that are facing the problem of surplus facilities. There are areas of the country where the public mental hospital remains the major treatment resource, and there are states that remain to the problem.

This paper is based on a report prepared by the authors as members of a subcommittee on federal, state, and local relations of the National Institute of Mental Health. Dr. Stratton is in private practice at 3125 Glenwood Professional Village, Raleigh, North Carolina 27706.

With a much larger system of human services, any consideration of public mental hospitals as a group is complicated by the fact that there are sharp differences among these facilities—differences in programs, staffing, physical plants, mandates, missions, and philosophy. Even the name is a misnomer in many instances. Some state hospitals are not hospitals but function as community mental health centers. Others are conglomerates of federations of service providers such as skilled nursing homes, intermediate-care facil-

■ A host of political, economic, social, and human factors must be weighed in considering the future of the state mental hospital. The latter's fate is inexorably interwoven not only with development of an integrated system of care and treatment of the mentally ill but also

The authors emphasize that the future of state mental hospitals should be considered only in the context of a unified system of care and treatment of the mentally ill. They discuss changing perceptions of mental hospitals as resources for mental health care, describe trends that must be considered in developing a unified system of services, and make recommendations about treatment plans, staffing, funding, organization and governance, and legal codes and standards of the components of a unified system.

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The Future of the State Mental Hospital: Developing a Unified System of Care



Their should be a unified system of exchange of essential information about the care and treatment of patients. Also, the state hospital should participate in a program that would assure the patients right to treat-

Hospitals should participate with the other parts of the mental health system in a unified patient-manage-ment plan, which would include a tracking system that would follow the patient from the point of entry into the mental hospital system to the point of exit. The tracking system would monitor the patient throughout his stay in the hospital. Where possible, the patient would enter from and exit to a community-based pro-gram, which would continue to track the patient hospital and the community programs would serve, or with primary agencies in the community if no mental health agency exists.

State mental hospitals should be continued only as part of a unified and purposeful system of delivery of mental health services. The hospitals should be part of an integrated system of mental health services for the geo-

DEVELOPING A UNIFIED SYSTEM

- Several reports indicate that a significant number of patients in public mental hospitals could be released if other appropriate facilities were available. Such alternatives might include family care, foster homes, cooperative apartments, and halfway houses.

- At present half of the residents are schizophrenics who have been hospitalized for a long period of time, and many are now 65 years of age and older. A large percentage of the patients released from state mental hospitals have been referred to nursing homes for the aged. It now appears that the entire range of purely psychiatric facilities is caring for less than half of the aged mentally ill.

leading diagnostic category, accounting for 26 per cent

The most important point in planning for a unitized system of care is to consider the recipients of the service. Plans to phase out public mental hospitals should include plans to avoid phasing in unacceptible programs.

² For a fuller discussion of changing trends in mental health care, see L. D. Ozanah, R. W. Reddick, and C. A. Taube, "A Quarter-Century of Psychiatric Care, 1950-1974: A Statistical Review," *Journal of Community Psychology*, Vol. 27, July 1979, pp. S1-S15-19.

- Since 1950 there has been a constant increase in the proportion of residents-patients under age 25 in public mental hospitals. While this group still represents only a small percentage of the total resident population, the increase merits careful consideration in planning.
 - A comparison of diagnostic distributions of first admissions to state and county mental hospitals since 1946 shows striking changes. The percentage of first admissions with organic brain syndromes has dropped sharply, while those diagnosed as schizophrenic admissions with organic brain syndromes has dropped slightly. By 1972 alcohol disorders were the

- Half of all patient-care episodes for patients 65 years of age and older in psychiatric facilities are in state mental hospitals. Since 1950 there has been no significant change in the proportion of residents-patients

The most important point in planning for a unified system of care and treatment of the mentally ill is to consider the recipients of the service. Plans to phase out public mental hospitals should include plans to avoid phasing in unacceptable replacement programs. Deinstitutionalization to avoid dehumanization must guarantee that more than just a change in the residual facility is being proposed.

To effect changes that result in improved programs for all citizens, several significant trends require careful consideration in developing an integrated system of

Another important change is that the institution that formerly was almost entirely subsidized by public tax monies has developed an increasing capacity to generate other sources of revenue. Patient fees, third-party payments, federal and nonfederal insurance funds, contracts with hospitals, and grants have been acquired by increasingly more sophisticated cost-sharing and payment-collection systems. In many instances those revenues have been delivered directly into the state's general treasury. However, in several jurisdictions foundations or funds have been established to receive all or part of the state hospital bills. In addition, community mental health programs and local foundations and, in turn, to disburse funds to develop additional facilities and services.

Hospital staffs were generally overbooked or were considered redundant and then rejected as resources. However, as mental health centers have assumed a more comprehensive role, particularly in the rehabilitation and post-hospitalization programs for the long-term mentally ill, the expertise of some members of the hospital staffs has become more valued. At the same time, many staff members of the unitized state hospitals have assumed new roles in community outreach, and treatment programs. The gap between community and state hospital clinicians has narrowed so that the latter are now considered valuable resources for the community mental health clinics.



LEGISLATION AND STANDARDS

Impact of services, and it should include the consumers involved in the services being delivered at the hospital. There should be a common evaluation plan that would include the community-based mental health programs and the areas being served.

The standards of the Joint Commission on Accreditation of Hospitals as those to strive hospitals that do not meet the standards should be phased out or immediately action should be taken to bring the facilities up to standard. The standards developed in the *Wyatt* decision should be considered in the state codes established for private facilities.

Representation of the geographic area being served should define the role of the state mental hospital, with due consideration of the existing resources. Thus when the state hospital is the only formal mental health delivery system in an area, it would take on the appearance of a comprehensive community mental health center. Where community-based programs exist, the state hospital should be phased out unless there are specific services that the local programs cannot provide and must contract for.

Mental health codes should be altered to provide that admissions to the state hospital are screened in a community-based element so that admissions are made in a collaborative manner as part of a treatment plan. Statutes regarding employees have to be revised to ensure that personnel standards for local programs are the same as those for state hospitals.

NIMH has collected data about the experiences and difficulties that are developing now in Utah, California, Kentucky, North Carolina, and other states that are attempting to either phase out state hospitals or unify them into one system with community programs. Those materials should be shared in each state in a purposeful manner between the appropriate state authority for mental health and the existing state hospitals and local mental health services.

A clear contract should exist between the community and the hospital serving the community that would include the goals identified for the state hospital, the programs needed, and the manner of funding for the programs. That should be a continuity to be fulfilled when any further funding, whether local, state, or federal, is to be approved for community mental health center staffing, construction, alcoholism and drug programs or hospital grants for the hospital's improvement or staff development.

Each state should develop a total systems plan that would include population needs, resource integration, and fiscal analysis, in collaboration with local programs, and state hospitals, and federal resources. ■

ORGANIZATION AND GOVERNANCE

State hospitals and local programs should be funded through a single funding system. From state to state the approach may vary from total state funding for the state hospital and local programs to local control of the funds ing for the local programs and the hospital. One system of funding would automatically unify the programs. Where funds are allocated separately to the local programs and to the state hospitals, there should be goal-oriented financial contracts between the two elements of the delivery system, with built-in effectiveness and efficiency evaluation and control to assure fulfillment of the terms of the contract.

State hospitals should seek multiple funding and should move to an accounting system that permits cost-benefit analysis. As much as possible, state hospital programs should be established on a contract basis with the communities they serve to assure that the programs are the ones needed by the communities.



It is a way of looking at the world. Thus, a system is operates independently of any discipline or content area; is used in the general systems theory. Systems theory is difficult to define. I use the word "system" much as it applies to anything that seems extremely complex and system." In common practice, we often use the word "system" therefore "systems." As, for example, the "mental health structures, although formally or legally organized, are I make no assumption that existing programs or

A. Systems

need to be thought about in working on integrating systems. made. And identify findings; and finally to list the issues that identify the task of various components of the system; list errors local and state programs around the country; identify problems met; but drawing on my consultative experiences with a number of other systems integration primarily based on the North Carolina experience, describe a systems approach as I define it, my experiences in involved in systems integration. To focus on these goals, we will and manager; to identify important issues to be examined by others a systems approach to systems integration of use to the practitioner. The goals of this presentation are, to describe an application of

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Central Office Staff, Facilitates
Directors, County Directors

Nicholas E. Stratas, M.D., F.A.P.A.

ACHIEVING AN INTEGRATED SERVICE SYSTEM:
ISSUES AND APPROACHES



a set of elements of parts which have a definable mechanism and inter-relationships functioning together over a time. As a system moves from a relatively fixed organization and internal relationships to a more adaptive monitoring structure it becomes less a closed system and more an open system. Human systems are open systems. An open system interacts with its environment as an essential part of survival. An open system has a monitoring component which provides it with feedback, including information coming into the system with feedback, itself about the environment and about its impact on the environment, and information from within its structure. Open systems are morphogenic, those which change the form or organization over time. Open morphogenic systems are goal oriented, and the goals of the system are the work it seeks to accomplish and its purpose for existence. Ideally the goals contain a specified, identifiable, measurable change and the time by which the work of the system would take place or a time by which the work of the system would be complete. Goal clarification is the process of identifying these specifications. Purposefulness requires continuous interaction between the system and its environment. This includes, therefore, input, that which enters from outside the system, and output, that which goes from the system into its environment. Thus, a system is open, inner-directed, into its environment. This is in contrast to the process where goal-oriented, monitoring, and everything else moving together. The process of inter-related, interacting elements moving toward goals, providing internal and external feedback, is the process of inter-relatedness moving together.



actions are directed at stimuli coming from the environment, which I consider reactive. This systems perspective can be used to define a living person system, internally and as part of a larger system in interaction with other person systems comprising the community, and can be used to look at and consider formal organization, such as hospital, local programs, and state programs. In addition, to be concerned about systems is to be concerned about boundaries. The systems approach involves activities in an existing social arrangement moving toward a purposeful self-managing cluster as follows:

1. System mapping - an empirical determination of the current operating nature of the system; 2. System design - the determination of the arrangements and augmentation of existing arrangements; 3. System engineering - the implementation of new arrangements which are desired; to go? How do we get there?

Simply stated: Where are we now? Where do we want arrangements and augmentations of existing arrangements. System mapping includes boundary definition, element identification, and identification of the set of arrangements. Boundary identification includes at least four types: the legal-geographic boundary defined by the map data of the government body; the existing operational body managed by the people staff engages; the potential boundary in terms of the types of activities or services in which the program by the government body; the existing boundary in terms of the people who wish to serve; the existing boundary in terms of the people currently being served.



Element identification is the process of definition of activity arrangements or whether in other parts of the community. Element setting of the hospital or outpatient mental health clinic, examination also includes what flows into it and what moves out of it. Input and output, including economic limitation limited resources such as materials, money, facilities, staff is the activity which identifies what constitutes the arrangement relating social system and the program and the human relationship between activities and what constitutes each arrangement of the activities and the ways in which each identified element is linked to the other elements. The identified element is personal experience drawing primarily on North Carolina, but augmented with consultations with other programs. In North Carolina, the original structure was a hodge-podge, including a few clinics within the State Department of Health and a Hospital Board of Control, which was responsible for policy making for four mental hospitals, three free-standing mental retardation centers, and one alcoholism rehabilitation center. In 1963 the Legislature created a Department of Mental Health and grouped the state hospitals, the clinics, the retardation centers, and the alcoholism rehabilitation center. At the county level there was strong county structure. At the county level there was carried to the 100 counties of the State in light of the come of State-wide planning. This State-wide planning was mandated that a State-wide program be developed as an outgrowth of some counties could, on their own, develop recognition that some counties could, on their own, develop



At the State level, the State Board of Hospitals Control was converted to the State Board of Mental Health with the amalgamation of the various hospitals, clinics, etc. More recently, the State Department of Human Resources has been created with its own board and the Board of Mental Health has taken an advisory function and, in fact, has been a cause for mental health leadership in North Carolina to falter. As a mechanism for the State to relate to the county units, a document called the "Memorandum of Understanding" was drafted and used as an agreement between the Commissioner of Mental Health, representing the State, and county governments, in order to implement programs. Over the past ten years area program development has progressed so that at this point the area mental health program presents its annual budget as an integrated package of activities and resources being utilized for the citizens of that geographic area from whatever source derived, local, state or third party, and wherever expended, whether local, either by the area program or through contracts with public or private organizations, or at State facilities - the hospital retardation center, or the alcoholism center. In fact, that at the area level the area mental health director for that geographic entity has the same responsibility as the State Mental Health Director has for the total State. The major difference at this time is that at the state level there is a separation of sorts of alcoholism and mental retardation programs, while at the local level they are integrated.



At the regional level, as the regions developed, regional communications in the central office were developed, serving very much as associate commissioners. As the regional programs had evolved their own priorities coming up from the areas, there has developed a regional staff at this time consisting of only four people, in the areas of mental health, mental retardation, alcoholism, and administrative affairs. The key instrument in this evolution has been the regional retardation, alcoholism, and administrative affairs. area directors, plus the superintendent of the State hospital management team. This group is composed of each of the local county residents at the State institutions and other types of training programs tailored to each region's needs and addition, the universities have been involved in the development joint appointments, staff exchange, and cross-over. In addition to each of the areas, the counties self-selecting visits to each of the areas, the counties self-selecting initially their own linkages with other counties. Then the convening of the regional management team -- the local directors and the institutional directors. Early attempts to identify by collecting the area goals, the institutional goals. Later efforts to detail patient inventories to begin to predict each area's and, therefore cumulative the region's, trends and goals.



the area system efforts began not only to be in step integration effort. Over a period of two to three years operations which at first were out of step with the necessary to respond to State-mandated goal-setting while at the same time weaving through the maze of paper both integrate the system by addressing real-world needs 1. Bureaucratic paper work, particularly attempting to

B. Problems Identified

has further strengthened the total system.

groups the opportunity to reflect with their own peers and facilitates directors. This has provided each of these associations, as well as a continuing convening of the At the same time there has developed a local directors' bi-yearly or quarterly affair were needed only once a year. And the State-wide departmental meetings which used to be a management teams on a couple of occasions during the year teams merged the commissioner would meet with the regional the commissioner to the areas. As the regional management to falter at times. The process was augmented by visits by intermittent political pressure which caused the evolution intermittent attacks. Needless to say, this stimulated papers and radio and television got into the picture with felt threatened, jobs felt jeopardized, and even the news-one time or another superintendents felt threatened, staffs where there was distrust, question, and even paranoia. At The process included a considerable period of time



- with the State's programming budgeting system, but in fact became even more predictive than the State's effort.
2. Patients and staff trained to be chronic and focus on failures -- failure to take medicine, failure to find a job, failure to find a place to live, failure to show up at a clinic.
3. Little training existed.
4. Little accountability existed.
5. Professionals were trained to treat pre-existing patients.
6. There was no unified portal of entry or exit.
7. One element was not aware of admissions to other elements.
8. There was no unified goal setting or progress review at the patient level or at the program level.
9. Patients were lost, both following their discharge from one element, but also within programs after admission.
10. The in-and-out patients.
11. The treatment failures.
12. Patient problems being dealt with by treatment administration.
13. Administration problems being dealt with by treatment administration.
14. Suspiciousness of one element for the other; of the central office staff, of the hospital staff, of the area personnel.
15. Scapegoating.
16. Different conceptual frameworks.
17. Unclear patient populations.
18. Unclear program activities.



19. Unclear patient and program goals.
20. Unclear strategies.
21. Unclear boundaries.
22. Unclear linkages.
23. Unclear decision loci.
24. Unclear patient flow.
25. Unclear treatment plan and reviews.
26. Job threats, both because of the program evolution and from political pressures.
27. Regional offices bypassed by the areas.
28. Regional offices bypassed by the central office.
29. Isolation of the central office.
30. Regional planning in conflict with state-wide planning.
31. Central office indecisiveness.
32. Central office pressures.
33. Sibling rivalries.
34. Community uprisings.
- C. Tasks of Areas
1. The provision of leadership to the coordination of all the resources affecting citizens of that area.
 2. Interpretation to local and state-elected officers of the direction of the program and the local, regional, and state-wide directions.
 3. Accountability for all resources expended for area citizens regardless of where expended.
 4. Coordination of patient inventory at the local level and between the elements and of patient pathways.



of new program needs and new program resource needs.

5. Coordination of population inventory and identification

D. Task of State Facilities:

1. As part of an integrated system to be a regional

brokeverage integrated around the smallest unit of political/economic/carrying unit capable of providing a full range

2. Participation in area-based unified treatment planning:

of services.

unified portal of entry and exit; unified system of information; unified patient treatment within a unified statement of patient's rights.

3. Participation in the unified statement of staffing; by agreements, by joint appointments, by equalizing salaries

and fringe benefits, and by unifyng training programs.

4. Participation in unified funding, either by single

tract or through contracts.

5. Planning through areas by goals and through the area

goal planning arriving at the definition of the State

6. Utilizing the totality of the area boards as governance hospital role for the coming year.

directive in concert with the area directors, to establish

and utilizing the regional management team, the hospital

services reflected common standards.

procedures supported by common laws and regulations and

7. Participation in the development of common admission

the multi-area goals.

directive in concert with the area directors, to establish

and utilizing the regional management team, the hospital

6. Utilizing the totality of the area boards as governance

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contract or through contracts.

6. Utilizing the totality of the area boards as governance

hospital role for the coming year.

7. Participation in the development of common admission

the multi-area goals.



community mental health center.

1. Attempts to implement models; e.g., comprehensive

G. Errors Made

State-wide plan.

3. Integration of area and regional plans to create a patients.

management information systems, finances flowing with

2. Development of supports for the areas, including Governor

multi-region plan to the state legislature and to the

1. Leadership and interpretation of the integrated multi-area,

E. Task of the Central Office

the area level of State-wide needs and plans.

needs and programs and, in turn, the interpretation at

5. Interpretation at the state level of the multi-area area plans.

incorporation in the State-wide plan of each of the

4. To be a regional program summary device and to insure

regional management team and/or special population needs.

3. Providing convening leadership where necessary for the necessary.

including the provision of substantive manpower where

2. To provide regional coordination and technical support office or area offices.

1. To serve simply of extensions of either the central

E. Task of the Regional Offices

to hold the area director accountable.

8. Willingness to move the resources to fit the plan and



2. Attempts to identify model programs.
3. Attempts to use the hospital superintendent as associates to geographic units were a must, or assuming that we could get along without them.
4. Assuming geographic units were a must, or assuming that we would not get rid of state hospitals, assuming that we could get along without them.
5. Assuming that we would get rid of state hospitals, or assuming that we would not get rid of State hospitals, or assuming that they were necessary.
6. Assuming area boards understood the priority and needs of severely impaired patients.
7. Assuming area boards were interested in prevention and could correlate it to measurable goals.
8. Attempting to incorporate non-mental-healthers in management teams.
9. Ignoring non-mental-healthers.
10. Implementing reorganizations too soon.
11. Implementing reorganizations too slowly.
12. Regional office people without community mental health experience or without experience in the treatment and management of the severely impaired patient.
13. Allowing political change to drain energy.
14. Changing the State-wide Board of Mental Health from a policy board to an advisory board.
15. Assuming the Department of Mental Health was a "system."
16. Assuming we need new and different funding. In one area we looked at and studied the possibility of implementing a unified budgetary and programming system. The conclusion was that the problems of cost, logistics, and personnel issues was far outweighed any potential benefit for the integration of the budgetary and programming system. The conclusion was that the problems of cost, logistics, and personnel issues was far outweighed any potential benefit for the integration of the budgetary and programming system.



At the patient level it was useful to conceptualize patient care. At the staff level it was a useful finding to identify our implementation of a treatment program for treatment failures those who are treatment failures. The conceptualization and indeed turned out to be the core of much of our difficulties. At the staff level it was a useful finding to identify our three elements: the administrative, the technical, and the treatment. This turned out to be important in the sense that there are, in fact, administrative, technical, and treatment issues, and if these issues are engaged with at the appropriate level there is quicker and more effective resolution. Frequently treatment issues were being grappled with by administration, and administrative issues were struggling with administration, and administrative issues were struggling with treatment.

Frequently treatment issues were being grappled with by administration, and administrative issues were struggling with administration, and administrative issues were struggling with treatment.

At the population level it was useful to conceptualize the economic, the political, and the caring system. Mental health services, of course, fall into the latter, but must develop and exercise their connections to the economic system. Mental health services, of course, fall into the latter, and to the political systems, which determines quite frequently the direction of the caring program.

H. Findings

Patient care.



4. Goals -- input and output.
3. Current formal activities and their linkages.
2. Current status of target population.
1. Conceptual framework.

I. Issues to Think About

8. There is a built-in monitoring system.
 7. Programs are tied to a complement of hospital beds given special support to these ends.
 - the most disturbed and severely impaired patients and are 6. Staff are especially trained to be able to deal with characteristics.
 5. Programs are tailored to conform to the local community case management.
 4. Personally tailored treatment plans are implemented, psychiatric, asylum, re habilitation.
 3. Full range of functions is provided; i.e., medical,
 2. There is elimination of the need for programs to compete.
 1. Top priority is given to the most severely impaired patients.
- programs that work are as follows:
- have a new hypothesis to test. Findings that are common to to stop funding these models and pilots unless, indeed, we information than we are implementing. Furthermore, it is time lived. It is time that we recognize that we have far more programs. Model programs and pilot programs seem to be short-term with Leona Bachrach that there are very few findings in these As I examined programs that worked, I have come to agree



5. Strategies and steps to be taken.

6. Boundaries, how structured, how open and how evolving.

7. Connections between staff and activities.

8. Identification of the administrative/technical/treatment levels and of issues appropriate to each level.

9. Training programs for patients, families, staff, and community support systems.

10. Accountability through case management, program management, and system management.

11. Unified portal of entry/exit and patient tracking system or patient pathway and identification of patient

12. Unified information system, both patient and program characteristics.

13. Unified goal setting, both patient and program.

14. Unified process review, both patient and program.

15. Unified treatment planning and program planning.

16. Unified treatment review and program review.

17. Monitoring and following through with feedback.

18. Preplanning for violent behavior. This is an extremely important issue. The violent and threatening behavior is frequently a part of the symptomatic picture and is one which one which potentially involves family, police, and community, often escalating into the political system.

Therefore, quite specific goals and actions to be taken must be spelled out in advance. Examples of important considerations include the conditions under which the patient will be returned to the hospital or taken to jail, or perhaps the mental health center or even to home if the first contact is the police. When the plan is put



into action it must be monitored to prevent potential staff anxiety, whether at the clinical or administrative level, from circumventing the specific original plan. Inter-agency teams at each of the levels -- administrative/technical/treatment. The place of family in the system. The place of boards in the system. The place of management teams in the system. Administrative/strategic commitment of resources and assignment of priorities with continuing nourishment of the programs. Staff scapegoating. Patient/family/staff inter-relationships. Support systems. Monitoring of the whole system. Reorganization.

I have reviewed a systems application to integration of services including experiences, problems met, errors made, findings, and issues identified that need to be thought about when integrating services. Commitment of resources is essential to the consideration of problems both individuals and organizations. Merely obtaining more resources will not, in itself, lead to integration and increasing effective use of resources. Quite on the contrary, it may lead to more despair. Clarifying our definitions and concepts is necessary. Clarifying our program goals and program linkages is essential.

28. Reorganization.
27. Monitoring of the whole system.
26. Support systems.
25. Patient/family/staff inter-relationships.
24. Staff scapegoating.
23. Administrative/strategic commitment of resources and assignment of priorities with continuing nourishment of the programs.
20. The place of family in the system.
21. The place of boards in the system.
22. The place of management teams in the system.
19. Inter-agency teams at each of the levels -- administrative/technical/treatment.
18. From circumventing the specific original plan.
17. It must be monitored to prevent potential staff anxiety, whether at the clinical or administrative level, from circumventing the specific original plan.



In 1965 at the same time that the four state mental hospitals and the four centres for mental retardation were integrated, the State was divided into four regions, each with a population of from 1½ million to 1¾ million. Serving each region is a regional mental hospital, a regional centre for the retarded and eight to 12 community programme areas with either existing or developing programs. In addition, an alcohol rehabilitation centre exists in one region, two more are under construction in other regions, and a third program is being planned for the fourth region.

An active State Board of Mental Health with 15 members with several subcommittees is a policy making group for the mental health program.

The Commissioner of Mental Health and the Business Manager of the Department of Mental Health with their staff constitute a dual system whose current effective operation is in part based upon the ability of the two leaders in their capacity to work together, setting a pattern such as Wake and Mecklenburg Counties.

Introduction:

AREA PROGRAMS -- THE NORTH CAROLINA MODEL
James W. Osberg, M. D.; N. E. States, M. D.
R. L. Rollins, M. D.



Program responsibility is delegated from the Commissioner through five Deputy Commissioners -- four Regional Deputies and one Deputy for Mental Retardation and Children's Services. All other central office Deputies, including areas of training, alcoholism, education, public relations, statistics, evaluation, planning, research, psychology, social work, nursing, special education, and shares responsibility with the Regional Deputy Commissioner and the hospital or the community level. The community programs are established team members for the development of regional programs, whether at the hospital or the community level. The community programs are established on the basis of negotiations with community leaders including county commissioners, culminating in the signing of a memorandum of understanding with the Department of Mental Health, which provides a basis for joint state-local planning of programs, funding on a matching basis and cooperative relationships. Each program has an advisory board, which is usually on a rotating basis, with representation from key community leadership. The medical community is often prominent in leadership and in providing support, both at the local and at the state levels. The Deputy Commissioner, therefore, serves primarily as a liaison administrator in respect to the regional hospitals but as a consultant to the community in respect to the community programs.



North Carolina with a total population of about 5 million is a "Land of Variety," from Hatteras through the Coastal Plains, through the increasing industrialized Piedmont, on through the West and the state with many small cities and towns. This, of course, relates to the problem of delivery of mental health services, as well as to the mountains. It remains predominantly, however, a rural, dispersed function of staff.

Since 1965 there has been increasing development of geographic units at the regional mental hospitals. All four hospitals either have, or are in the process of developing, geographic units, usually multi-county. The evolution of this program has presented many challenges, including the changing roles of key staff members and newly developing relationships with communities. As this change has taken place, community mental health centers are in the process of developing, and it is anticipated that within the next two years there will be at least 20 such centers. There has been developed the other, community programs. These programs were initially separate and funded and staffed with different pay scales and personnel procedures. Approximately 80 percent of funds have been utilized for the institutional programs and 5 percent for the community programs.

Area Programming:

In subsequent two major mental health programs, one institutional directed towards the community through the geographic unit system and the other, community programs. These programs were initially separate and funded and staffed with different pay scales and personnel procedures. Approximately 80 percent of funds have been utilized for the institutional programs and 5 percent for the community programs.

Consequently two major mental health programs, one institutional and the other, community programs. These programs were initially separate and funded and staffed with different pay scales and personnel procedures. Approximately 80 percent of funds have been utilized for the institutional programs and 5 percent for the community programs.

The geographic units are in the process of developing, and it is anticipated that within the next two years there will be at least 20 such centers. There has been developed the other, community programs. These programs were initially separate and funded and staffed with different pay scales and personnel procedures. Approximately 80 percent of funds have been utilized for the institutional programs and 5 percent for the community programs.

Subsequent to the initial development of the geographic units, there has been a significant increase in the number of mental health centers. This has been driven by the need to provide services to rural areas where there is a lack of mental health professionals. The geographic units have been instrumental in addressing this issue, providing services to rural areas that would otherwise be difficult to access. The geographic units have also been instrumental in addressing the issue of mental health services in rural areas, providing services to rural areas that would otherwise be difficult to access. The geographic units have also been instrumental in addressing the issue of mental health services in rural areas, providing services to rural areas that would otherwise be difficult to access.



A primary task is the training and recruitment of staff including the psychiatrist area director. We are in the process of developing and describing with our Personnel Department "generic positions," for example, characterizing the task of the administrator of the community program arm of the area program in terms of planning, community organization, training, personnel and budget administration. The focus is

Training of Personnel:

TASKS RELATED TO THE AREA CONCEPT:

area program.

Particularly during the past three years as these two systems of mental health care have developed, there have been some interesting pilot efforts in relating the two. Small experiments in sharing funds between the hospital and the community program, the sharing of staff and shared planning have occurred. These experiences have most typically taken place between the geographic unit serving a multi-county area and the community mental health program serving that same area. Related to these experiences, the concept of an area program has been defined, that is, a comprehensive mental health program serving a population, bringing together resources from the regional mental hospital, the center for the retarded, the community mental health center and other elements. A major goal of the Department of Mental Health is to explore in depth this concept including the role and function of one designated area director, presumably a psychiatrist, who would have overall responsibility for the program, whether triest, who would have overall responsibility for the program, whether based in the community and in the state institution. Further experiments are ongoing with decentralizing Departments of Vocational Rehabilitation and Corrections, establishing programs as part of the mental health system.



community end of the continuum, through shared programming. We (80% institution, 5% community), we anticipate a shift towards the With the current distribution of mental health program funds,

Funding:

Services:

discussing with them possible patterns of funding and operation of new geographic or functional units in the state hospitals. We are county commissioners and other community leaders in the planning of As a step towards this, we are currently inviting participation of Our purpose is to develop an advisory board for the total area program. Community in respect to the mental hospital component of the area. A challenging problem is the question of the future role of the as well as within the mental hospital.

regional mental hospital staff to function in and with the community, community advisory boards. A major problem is the deployment of the present relationship of the local mental health authority and the visory group with responsibility for the total program comparable to visor and the establishment of an area-wide administrative and ad- of the area director being responsible to the Regional Deputy Commis- the area program concept. At this time we are exploring the concept ture which will permit both the exploration and the development of A challenging task is that of developing an organizational structure-

Organizational Structure:

developed with the universities in the state to train personnel. upon skills required and these are not seen as the prerogative of any one discipline. Several kinds of cooperative relationships have



the following steps have been taken:

In the development of regional and area mental health programs,

Development of Area and Regional Programs -- Some Examples:

matiion.

one of our major tasks that of communicating ideas, exchange of information

current programs and area programs as they are developed. We see as

recently engaged in an effort to establish a method of evaluating

the area concept, its planning and its implementation. We are cur-

programs and in institutions, staff at the university in regards to

county commissioners, community advisory groups, staffs in community

this point of view, we look forward to much early discussion with

Health is committed to the concept of participatory planning. From

Current leadership in the North Carolina Department of Mental

Planning of Area Programs:

out in favor of a shared responsibility at both ends of the continuum.

carrying for the moderate or minor disorders would gradually be balanced

carrying for the serious mental disorders and the community programs

development, we anticipate that the dichotomy of the mental hospital

Although it is difficult to judge the direction of future program

Mental Health Programs and Services:

tion total funds available to an area.

to-one thereafter may well have to be modified, taking into considera-

multa of two state dollars to one local dollar up to \$30,000 and one-

anticipate in addition, for example, that our present matching for



- A. The state has been divided into four regions for mental health program purposes;
- B. A mental hospital, a center for mentally retarded, an alcoholism program and a number of community mental health program areas have been designated for each region;
- C. Regional Deputy Commissioner and Associate Deputy Commis- sioner (superintendent of the mental hospital for the region) have been designated for each region;
- D. Certain other key region-wide staff have been designated, including three regional training coordinating committees serving both the institutions and the community programs, three regional social workers with a similar function and, in one instance, a mental health nurse working in community programs in part of a region, funded through the regional hospital.
- E. Combined meetings of all mental health management teams in and a university department of psychiatry.
- F. Combined meetings of all mental health management teams in all four regions. occur regularly and "area program reviews" of combined staff of the area are either in process or are being developed in each of the regions.
- G. Board members of the State Board of Mental Health and Local advisory board members are frequently involved in conferences and in visiting both community and institutional programs.
- H. Relationships have been developed with specific departments in both regional and out of regional universities to assist in regional and area program development. A "multi-versity"



memorandum of understanding" with the three departments of Psychiatry in the medical schools of the state, the School of Social Work, the Mental Health Department of the School of Public Health, and the State Department of Mental Health throughout the state in the areas of training, research and expresses agreements to work together in developing programs for close working relationships between staff members of the universities and those within the Department of Mental Health with shared positions and appointments. The memorandum of agreement has set the stage for close working relationships between staff members of the universities and those within the Department of Mental Health with shared positions and appointments. Major issues requiring planning and decision making include the development of a new contractual relationship between the components of the community programs is under review and presumably will be modified. Clearly the notion of the area program. The current matching formula of the Department and the local mental health authority, expressing clearly the notion of the area program. A more difficult problem is that of gradual shifting of funds from base through cooperative planning with local authorities. We anticipate that this process will be gradual, and that through this process the regional institutions will experience over time major modifications in their program with emphasis on provision of specialized services, for example, to geriatric groups, alcoholics, children and adolescents, and provision of special programs in the area of training and research.