INTEGRATED MANAGEMENT INFORMATION SYSTEMS FOR COMMUNITY MENTAL HEALTH CENTERS

NATIONAL INSTITUTE OF MENTAL HEALTH

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FOREWORD

Community mental health centers have demonstrated that a variety of mental health services can be brought within easy reach of individuals who need help in planned treatment programs emphasizing continuity of care. In developing programs easily accessible to the people of a community, centers have found that affiliation with familiar local organizations helps bridge the gap between the center and people not accustomed to seeking mental health care. The centers have thus fostered a system in which many caregiving organizations in a community can work together.

This has resulted in many instances, in the emergence of mental health systems with diverse funding sources, multiple levels of accountability, and complex inter-organizational relationships that demonstrate an increased need for more sophisticated administrative technique. To coordinate effectively services and facilities, centers have found the establishment of management systems to be basic to successful operations.

As part of NIMH's continuing program of technical assistance to mental health facilities throughout the country, the Division of Mental Health Service Programs is working to assist individual centers and other facilities develop operating systems to improve the delivery of mental health services. During the past few years, the Division has sponsored conferences and studies focused on the internal management of new and emerging mental health service delivery systems. As a result, several documents on multiple source funding, financial administration, cost finding, rate setting, and accounting guidelines have been developed and disseminated to administrators in the field.

To assist mental health centers and other facilities "track down" and utilize various operating systems, a seminar on Integrated Management Information Systems for Community Mental Health Centers was sponsored at the University of Denver in June 1973. The purpose of the conference was to present various models and methods of decision-making processes flexible enough for adoption by small facilities or those with multiple components.

This monograph brings together the thoughts and experiences of a number of mental health administrators and researchers who have working knowledge of one or more community mental health center management information systems. By detailing the process of developing systems and subsystems integral to the effective fiscal management of community mental health centers, the participants have contributed greatly to national efforts to advance responsible management in the delivery of mental health services.

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EDITORS' PREFACE

> *"Hallo!"* said Piglet, *"What are you doing?"*
> *"Hunting,"* said Pooh.
> *"Hunting what?"*
> *"Tracking something,"* said Winnie-the-Pooh very mysteriously.
> *"Tracking what?"* said Piglet, coming closer.
> *"That's just what I ask myself. I ask myself, 'What?'"*
> *"What do you think you'll answer?"*
> *"I shall have to wait until I catch up with it,"* said Winnie-the-Pooh. *"Now, look there."* He pointed to the ground in front of him. *"What do you see there?"*
> *"Tracks,"* said Piglet. *"Paw-marks."* He gave a little squeak of excitement. *"Oh, Pooh! Do you think it's a-- a-- a Woozle?"*
> *"It may be,"* said Pooh. *"Sometimes it is and sometimes it isn't. You never can tell with paw-marks."*1/

Unfortunately too much of mental health management information systems (MIS) has consisted of hunting and tracking something without knowing what it was. Until recently there was an absence of specific discussions on--

- the role of MIS in decisionmaking for community mental health centers (CMHCs),
- what a good MIS contains,
- how to get a MIS operational.

Today--1974--perhaps the greatest deficiency is the absence of specific discussions on integrating management information subsystems--integrating the various subsystems of operating and outcome statistics, accounting, cost-finding/rate-setting, and budgeting into an INTEGRATED MANAGEMENT INFORMATION SYSTEM or an IMIS. This monograph tries to meet this deficiency. The original idea for the conference came from Mr. Stanley Silber: hopefully the monograph reflects the same ingenuity he exhibited. The cosmetic features of reproduction may not be great but neither was

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1/A. A. Milne, Winnie-the-Pooh (London: Methnen & Co. LTD., 1962). pp. 34-36.

the budget. The budget was primarily the residual of a cost-finding and rate-setting training contract, and despite the financial limitations, we believe the product to be useful and informative. The monograph and its many papers underscore the desires of a handful of dedicated mental health administrators and researchers to advance responsible management in the delivery of mental health services.

Several worthwhile papers presented at the Denver conference have not been included because of--

- space and cost considerations,
- duplication of ideas contained elsewhere in the monograph.

While some contributions were edited heavily--perhaps beyond the point of recognition by the authors--hopefully the essence of their ideas have been retained. No author should feel chagrined if his paper was not included, because we attempted to incorporate the major ideas of each presented paper. If the monograph does not do this, the editors must bear the blame.

The monograph has been constructed on a modular framework. All major topics in the monograph are outlined in chapter 1 and chapter summaries are found in the first few pages of each succeeding chapter. A reader interested in only one aspect of IMIS subsystems is not forced to labor through the entire monograph. Those interested in the central theme--integration--should profit from chapters 1, 2, and 9.

The monograph is big and maybe cumbersome. Perhaps we should share T. C. Sorensen's concern about magnitude:

> *Had the Gettysburg Address been written by a committee, its ten sentences would surely have grown to a hundred, its simple pledges would surely have been hedged, and the world would have little noted nor long remember what was said there.* 2/

While this monograph represents a "committee" effort and contains more than 10 sentences, hopefully the issues are not hedged. And because of this maybe somebody in mental health will remember what was said and put it to productive use. We've appreciated the opportunity to try.

James E. Sorensen
Todd S. Smith
Co-editors

2/T. C. Sorensen. Decision Making in the White House (Columbia University Press, 1963), p. 61-62.

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CHAPTER 1

INTRODUCTION

Purpose of Seminar

A seminar on Integrated Management Information Systems (IMIS) for Community Mental Health Centers funded by NIMH was conducted June 27 - 29, 1973 at the College of Business Administration, University of Denver, Denver, Colorado. The objectives of the conference were:

- To consolidate and integrate existing expertise on the varying elements of the CMHC Integrated Management Information Systems including accounting, statistical, cost-finding/rate-setting, and budgeting subsystems by using individual managers of CMHCs who had demonstrated a(n)--
  - overall understanding of various CMHC Integrated Management Information Subsystems,
  - detailed working knowledge of one or more CMHC Integrated Management Information Subsystems.
- To share and homogenize innovative ideas in management techniques for CMHCs.
- To describe and illustrate working examples for systems that range from manual to large-scale computerization in a consultant's manual for--
  - those providing consultation to CMHC,
  - those needing IMIS consultation.

Objectives of Monograph

The outcome of the IMIS seminar is the following monograph. The objectives of the monograph are:

- To define general principles for establishing a workable IMIS in CMHCs
- To provide useful design information for CMHC in the early stages of IMIS development
- To provide examples of working IMIS at varying levels of complexity--manual to computer based--and their subsystems in terms of--
  - systems design
  - systems input
  - data processing
  - reporting.
- To provide practical consulting guidelines for those advising CMHCs on IMIS and those using advice on IMIS.

The monograph will develop the sequential steps to be followed in formulating and implementing integrated management information systems in CMHCs. The steps include the following major milestones:

- A conceptual approach to IMIS
- Understanding strategy and structures in CMHC organizations
  - External forces affecting CMHC strategy
  - Internal forces affecting CMHC strategy
- Structure of CMHC organizations
  - Centralization vs. decentralization
  - Lines of authority
  - Spans of control
  - Direct vs. indirect reporting
- IMIS design strategies
- Systems--Principles of design
- Accounting subsystems
  - Accounting records, reports, chart of accounts
  - Feedback from accounting subsystems
- Statistical subsystems
  - Statistical subsystems for small to medium sized CMHCs
  - Statistical subsystems for large complex CMHCs
- Cost-finding/rate-setting
  - Objectives
  - Cost-finding/rate-setting for small to medium centers
  - Cost-finding/rate-setting for large centers
- Budgeting
  - Principles and rules
  - Types and steps
  - Control
  - PPBS
  - Sample forms
- Integration
  - Manual reporting systems
  - Importance of integration
    - External integration
    - Internal integration
- On the horizon: Costs and outcomes
- Consultants--How to get along with them.

A CONCEPTUAL APPROACH TO IMIS

Why the Current Interest in IMIS?

The integration of decision-making information has become increasingly critical to the successful management of CMHCs. John Richard Elpers and Robert Chapman (1973) outline the need for relevant management information.

The past decade has seen a rapid proliferation of community mental health programs. The public investment in these programs at the federal, state and local levels have greatly accelerated. A much wider array of personnel are being utilized, including non-professional and volunteers. In the name of community mental health a great many things such as community organization and social action projects are being undertaken which were never thought to be a part of traditional mental health activities. Locally developed programs are displacing distant state hospitals and, at least to the casual observer, mental health services are far more available to a much wider array of people than formerly possible. However, these changes have created concern among the public at large and in particular from those people responsible for funding. The growing community mental health programs are no longer represented by easily identifiable massive buildings nor clearly delineated medical programs. The diversity of personnel staffing makes placing trust in a few prestigious professionals much more difficult for the public. The diversity of programs with their multiple purposes and complex interrelationships with other human services causes the goals and objectives of community mental health programs to seem vague, obscure and ill defined. There is a rising concern about the goals and effectiveness of community mental health programs and whether they are invading the purviews of welfare, public health, criminal justice systems and education. Regardless of whether this invasion is taking place, there is concern about mental health effectiveness, efficiency and how it interfaces with the other providers of human services.

Accountability. These concerns give rise to a demand for accountability by those delivering mental health services. This demand seems to have its parallels in other human services such as welfare, education and even the criminal justice system. The time has passed, if it ever existed, when those responsible for delivering human services are given sizable sums of money to spend in any desired way. Accountability encompasses far more than simply the demand for careful accounting procedures to show that public funds are not absconded. Not only are providers asked to show that services are reaching a large number of people but also that services are having a meaningful impact on their lives. There are increasing demands that services reach those most in need, a particular, giving services to the poor, the disadvantaged, and minorities. Since many of these groups require more flexible innovative programming, the demand for accountability is both increased and made more difficult.

Integration of Services. Beyond the public's demand for accountability, there is a personal, professional and ethical requirement for integration of mental health services with other human service delivery agencies to meet effectively the needs the members of society may have at various stages of the life cycle. Such a system must be viewed as an interrelated whole with multiple entry points and a carefully worked-out methodology to provide for expeditious routing of clients to the services most appropriate to their needs. This means being aware of the

human services' clientele, available programs, referral patterns and acceptance criteria. The delineation of these patterns and problems requires systematic, thorough data collection and study.

Funding. Any human service agency is in a highly vulnerable position if it depends upon a single source of funds. In recent years there has been a mad scramble to broaden the base of funding for most human service programs. All human service programs are competing for federal, state, local, philanthropic, third-party payor, and prepaid contract funds. These external funding sources are beginning to require the outputs of an IMIS. Serious questions about the continuity of categorical staffing grants have emerged. The pressures to develop multiple source funding (OPS 4) requires detailed information on delivered services and their specific costs. Costs incurred for mental health services rendered to eligible recipients in various state and Federal health programs should be billed and collected. Funding agents are asking more complex questions about CMHC operations. Requests from NIMH (e.g., annual inventory) are proposing to add features not historically required such as "cost per unit of various services" using cost-finding techniques. The pressure for "cost-outcome" analysis is mounting at state and national levels requiring both financial and program assessment information. As the variability of reporting requirements multiplies not only must the data gathered be examined as to its relevancy but also how it can be retrieved from records and how it can be used to meet this wide array of reporting requirements.

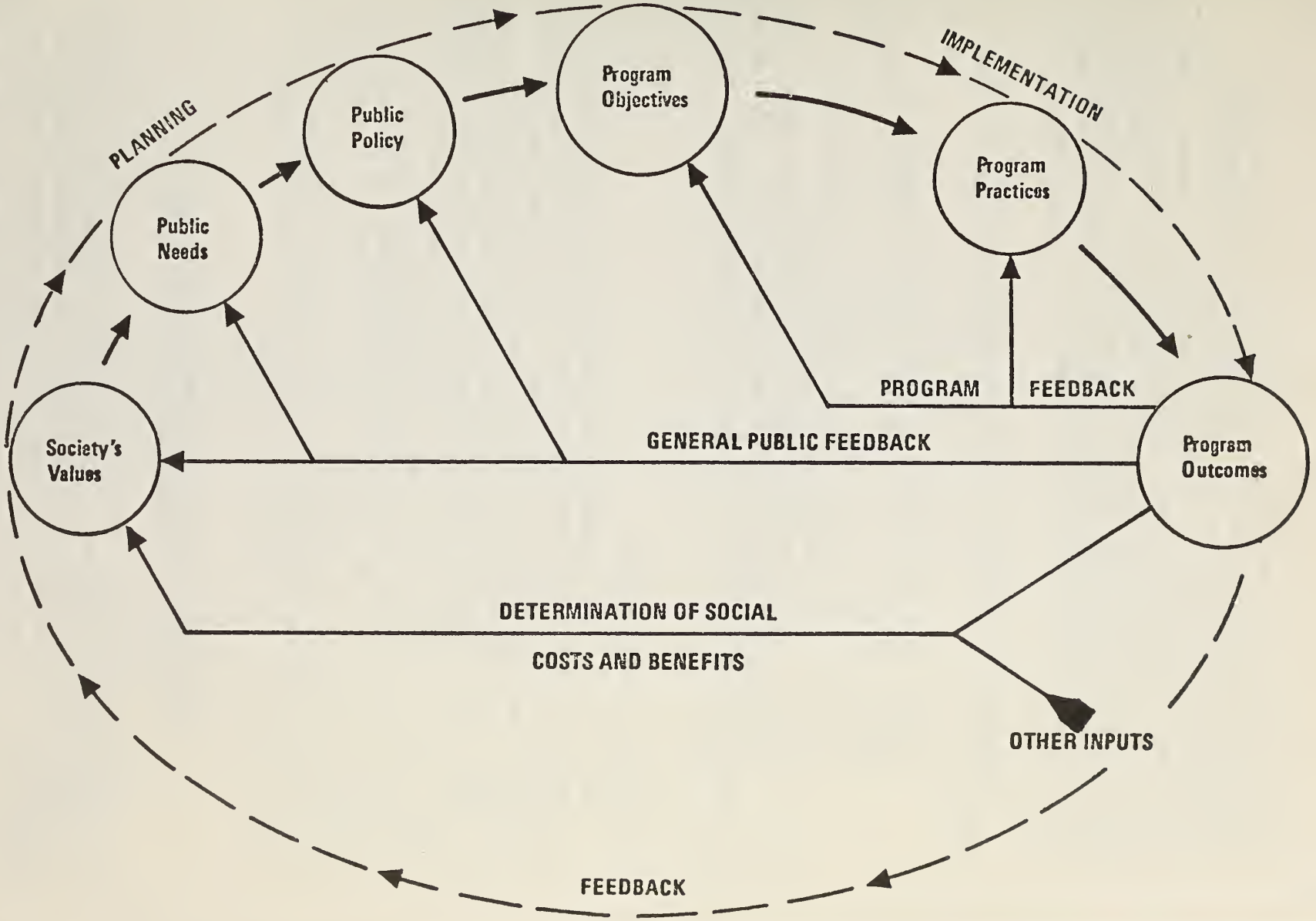
Planning. Although the problems mentioned are sufficient reason to require management information systems for human service programs, the most important need remains--planning. If a manager doesn't know whether current objectives are being met, he can't tell what to do about existing programs. If he doesn't know what clientele is being served and can compare with the community's total needs, he doesn't know what services he should develop. If he doesn't know what services are being delivered, he can't determine their effectiveness. If he doesn't know the cost of existing services, he can't estimate the cost of different services and make informed judgments about efficient allocation of resources. Without good management information, planning becomes no more than speculation.

Role of MIS. Since management information is so essential to the functioning of any human service agency, it must be a responsibility of top management. The system must answer management's questions in a timely fashion. To be successful, a management information system requires management's authority to see that it is implemented. In short, a management information system cannot be relegated to a remote research staff which is not completely integrated into day-to-day management decisions of the agency.

Exhibit 1-1 illustrates the role of management information system. Society at large has some generally held values, determined by a multiplicity of factors. These values in turn determine public needs. Public

EXHIBIT 1-1

Role of The Management Information System



needs are interpreted and translated into public policy through elected and appointed officials. This policy is then handed to service providers in the form of legislation, grants with attending regulations and guidelines, budgets and demands for service. Administrators have the responsibility to translate these needs, resources and demands into definitive programs with clear objectives. These objectives must be defined clearly in terms of implementation, scope and translation into the practices of the working agency. If the job is done well, program outcomes should be measurable in specific changes in the lives of clientele.

A management information system contributes data for all three feedback loops shown in exhibit 1-1. An MIS:

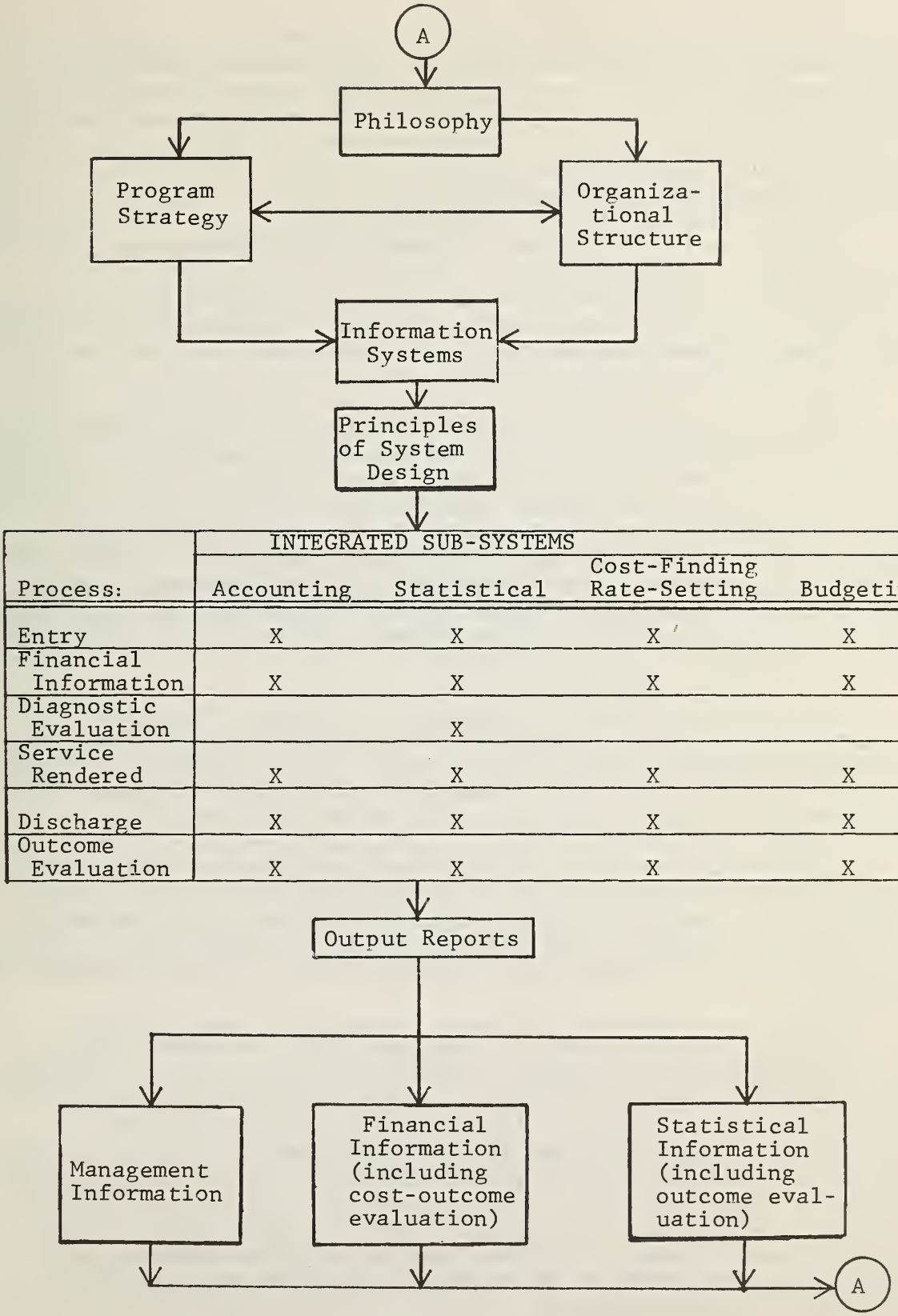
- *Provides program feedback to permit program managers to compare program outcomes with objectives in order to evaluate their practices.*
- *Provides factual information to clarify the general public feedback about quality and quantity of service.*
- *Provides the basis for analysis and planning that enables the manager to pose cost/effectiveness alternatives to the community so meaningful definitions of social values and social needs can be made.*

A Suggested Model for IMIS.

Given the need for management information, the first step in developing an IMIS is an identification of overall program strategies and organizational structure of the CMHC. Once optional program strategies and organizational structure have been identified there are a number of general principles of systems design that should be followed. In light of these general design principles, the various subsystems can be developed to provide interactive information--reports--for decision making. The reporting system should provide information for program outcome evaluation which in turn affects the programs and organization. A schematic diagram of an IMIS is presented in exhibit 1-2. Exhibit 1-2 attempts to identify the necessary elements of a process-oriented IMIS and its relationship to an emerging area of outcome evaluation. Clearly an inadequate process monitoring system stifles effective outcome evaluation, especially cost-outcome analysis.

UNDERSTANDING PROGRAM STRATEGY AND ORGANIZATIONAL STRUCTURE IN COMMUNITY MENTAL HEALTH CENTERS

A viable management information system is influenced by the programs and organization of the center. Overall CMHC programmatic strategies are influenced by external (e.g., political and economic factors) and internal (e.g., professional and administrative attitudes) forces and have a direct bearing on the identification and ordering of organizational objectives. If, for example, services are decentralized into catchment



Process:	INTEGRATED SUB-SYSTEMS			
	Accounting	Statistical	Cost-Finding Rate-Setting	Budgeting
Entry	X	X	X	X
Financial Information	X	X	X	X
Diagnostic Evaluation		X		
Service Rendered	X	X	X	X
Discharge	X	X	X	X
Outcome Evaluation	X	X	X	X

EXHIBIT 1-2

Role of an Integrated Management Information System (IMIS) in a Community Mental Health Center

areas, there is a need for a decentralized management reporting structure. Only after programmatic strategy and an organizational framework have been established is a discussion of basic IMIS design strategies appropriate. The discussion now focuses on the forces leading up to programmatic strategies and organizational structures.

External Forces on Program Strategies

External environmental forces surrounding the CMHC can have a direct impact on the program goals of the center--for example, the economic and political conditions that affect the funding and information requirements of a particular center. Virgil B. Sterling (1973) focuses his concerns on how these external forces can affect the development of a management information system:

The importance of external forces will vary for mental health from state to state, within states and with the legislative time of the year. Political and economic forces are not divorced entities; and either or both draw a crowd. Some mental health centers escape political involvements at the higher levels by standing alone under a private board funded by fees and a comprehensive community mental health center grants. County, city, hospital, school and other political involvements may come aboard if funds are contractually mixed and matched in the funding of mental health endeavors. These forces, like many others, can float like a butterfly and sting like a bee.

As federally supported or mandated services are set economically adrift, the crowd at the county courthouse will grow. The names at the top of the organization table will change. Many new administrators will want only to save particular aspects of existing programs, mix them with other programs in order to survive and come up with new goals.

Many of these mixtures of the programs and services have developed umbrella organizations which may or may not combine mental health with public health, health, social and rehabilitation services, vocational rehabilitation, youth rehabilitation, corrections, education, alcoholism and drugs, law enforcement, mental retardation, developmental disabilities and more.

Changes in Mental Health. Mental health as a movement, in becoming comprehensive, has expanded and all but lost its identity in social and health umbrellaism. The theory and goals of mental health have changed from Freud, drugs, and psychotherapy to rehabilitation, re-employment and economic usefulness. The roles of the actors in mental health have changed from doctors treating patients to managers supplying consumers through providers to attain mutually sought output. A good program in mental health some years ago was beautiful like a picture, a concert, or a building. The client was made a better person. Mental health as a program has become a service among services, preventive, ameliorative, and restorative.

The drums roll for better management of mental health services in return for more and more secure funding, a more sensitive, relevant, responsive therapeutic regime, shorter more effective treatment methods, and happy rehabilitated clients. The earlier mental health programs which had a base theory like a system or network are now rivaled by a goal-oriented based theory. The inhouse professionally managed system has evolved into a socially managed system with economic and political factors. The mental health system is no longer pre-endowed financially but must collect or receive funds as it works.

In many cases, the unit that is the payer is not the unit that is to receive the service. Units the size of governments, for example, buy services for indigent individuals. In this scheme, the mental health professionals will be directed and managed by locally elected officers more and more. An expert with a professional degree will report to an expert who won the last election. It's clear that clout is being vested more and more in political decision making, but unclear where and how it will be vested among the political units.

Payers and Politicians. In going public, mental health has to tell its story to more folks. Two that stand out in this crowd to be told are payers and politicians. But if mental health is to learn its story to tell, mental health must read from an updated system. This system has to tell a lot of things upstream as well as keep track of where last year's appropriations were spent downstream.

Information is based on data bits from several systems each of which has shifting boundaries. In the exchange inside mental health and at the interfaces with other programs, each player wishes to know rather precisely the score of the game. Esoteric research is not management information in this shop. The payer wants to know what happened that was worthwhile in a fair trade sense and the politician wants to know how it all happened. To answer these questions, the manager becomes a big scorekeeper. He checks out many scorekeeping systems like Integrated Management Information Systems, Management Costs Systems, Client Oriented Data Acquisition Process and others to a point that even the scorekeeper needs a program.

IMIS Can Help. The manager knows that an integrated management information system should help all of the folks do a better job. The consumer, producer, and administrator want that better job done. The big scorekeeper, the administrator, wants more than a treasurer's report, an auditor's report, an inventory printout, or an updated roster of clients. Each employee is a monitor of events. And outputs are stated in terms like "administrative objectives" or "output criteria."

In addition to the two big accountabilities most frequently mentioned--Program Accountability (what is happening within the system) and Fiscal Accountability (what happened to last year's funds)--there

are growing newcomers, such as Political Accountability (explaining things on a public forum), Right to Treatment Accountability (were the patient's rights preserved) and Treatment Planning Accountability (was this considered in a comprehensive way). There is some likelihood that adequate information systems will provide the important perspectives of the new accountabilities for the new sensitive-nosed, sharp-eyed mental health manager-decision maker.

Obstacles. Most mental healthers don't believe there are any woods in which they're the babes. But if enough of them became convinced, then the obstacles show up within the babe:

- *Resolving conflicts about the purposes of the information;*
- *Resolving how the information should be gathered: a special staff unit that spends all of its effort on gathering information or a partial effort by every staff member;*
- *Deciding who does what without the old "fiscal heavyweights" stealing the scene;*
- *Learning that most organizations will not be able to use the information;*
- *Discovering that most organizations will not be able to time their response to the availability of information;*
- *Understanding that most agencies only have their own language and thus cannot exchange information with other social agencies as insurance companies, county commissioners and political conventions.*

"Don't Rush!" The foregoing points make a good speech, but not ten times over. The rush is to ignore these barriers and buy a ready made system. If, on the other hand, CMHC managers do come up to these new expectations and can carry the load, it may be simply the managers are no longer mental healthers with a little inhouse data system but rather human service managers who have learned to cope in the big community through IMIS.

Internal Forces and Programmatic Strategies

While many dimensions of a CMHC's internal programmatic strategy could be developed, a needed key internal force is one that formulates and measures the center's objectives. Objective setting should start with broad goals at the Board of Directors level and sift through the organization to the lowest level possible. William F. Hunter (1973) describes the methodology used in goal setting at the Range Mental Health Center where management by objectives (MBO)--a management tool used successfully in private enterprise--has been adapted to a CMHC.

Everyone Needs It. There is no organization that does not need to set priorities in accomplishment of its goals, and in the expenditure of its resources. Even the U.S. Department of Defense with its huge appropriation, must continuously study and decide on the what, when, and how of several alternatives. Implicit in the process of selecting the right priorities are two essentials:

- Clarity in specifying the goals of the organization
- The ready availability of information relating to the amount and kinds of problems that are prevalent, their location, and the amount and kinds of resources that are available to help when dealing with them.

Need for Clear Goals. The Board of Directors reports that its objectives are the reduction of the incidence and prevalance of mental disorders, and the psycho-social dysfunctioning associated with them. This effort is not to be made alone, but in concert with other community agencies and caretakers located in the catchment area. Parenthetically, while these objectives and their clarity seem obvious to most, such an attempt to specify goals has not always been common to mental health organizations. Some still set their course by such compass bearings as, "to advance the field of mental health," or "to enable all people to achieve the maximum of self-fulfillment." These kinds of objectives are vague because of the difficulty associated with obtaining consensus on their meaning, and the tendency to confuse ends and means. These terms seem to make the priority setting process an exercise in abstraction rather than the establishment of logical rank order for the application of the administrative judgment about the degree to which currently defined problem situations intrude on the community's basic social values.

Information Availability. The Range Mental Health Center has worked diligently in improving the amount, kind, reliability and availability of the management information used at the center. CMHCs have the responsibility for organizing and coordinating programs and services deemed to be appropriate and feasible in their given catchment areas. To discharge this responsibility in a rational manner requires both current and reliable information.

Priorities and Questions. Although actions and decisions must and will be made in an organization with or without reliable information; and, because choice must always be exercised in selecting alternative courses, the rationale for the priority of these actions must be justified. Organized information analyzed with sufficient time by experienced judgment can provide such justification.

Behind all priority decisions in a mental health organization certain questions should be asked:

- What problems are most prevalent?
- Which of these already receive a great deal of attention?
- What gaps does the attention still leave?
- Can these gaps be filled?

Data and Judgment. The foregoing questions have been cited as examples of the desirable interaction between data and analytical judgment. Data alone will not provide any answers, nor will judgment alone. Judgment based on day-to-day experience that is not recorded and organized by discipline, plan, and procedures leads to programming that is diffused rather than specific. Human memory and memory based judgment are too vulnerable to forgetting, too selective in recall, and unaware of small changes that occur over a long period of time. When these frailties are multiplied by the factors of memory originating from several changing individuals, an organization requires planned and disciplined written records.

CMHCs had better "put it all together" and make order out of chaos. The ingredients are:

- The systems approach
- Participant management
- A focus on results instead of action
- Recognition of human needs and human behavior
- And an understanding of the relationship between various groups in our society and the organizations that provide human services.

With these ingredients, there is a need for an integrative methodology. MBO is such an integrative methodology that will effectively encourage and enable understanding and use of the above ingredients.

MBO in CMHC. Management by objectives is defined as an approach to management planning and evaluation in which precise targets for specific time periods are established with each member of the mental health center on the basis of the results which each must achieve if the overall objectives of the center are to be realized.

The primary value of this approach lies in the required conscious participation effort on the part of all members of mental health center in the planning and evaluation process.

Starting MBO. The management by objectives program starts with the board of directors and the executive officer who carefully state the overall purpose, goals and objectives of the center. The staff should be included in this initial process. This process will define the parameters within which the mental health center must operate, states why it exists, distinguishes it from other agencies, identifies its overall direction, and specifies what it will accomplish in a specific length of time.

Unless objectives are established at the board level it will be difficult, if not impossible, for objectives set by staff at lower levels in the agency to be meaningful and realistic. Without these overall center objectives, which set the stage for all other objectives

established within the agency, board level objectives may be at odds with one another, and may be at odds with the overall direction of the organization. Agency objectives are the core around which future objective setting must work.

MBO can provide structure for bringing about total staff participation in an orderly, planned way. The establishment of agency goals should be characterized by free exchange of ideas and differences that are honestly aired and openly discussed.

In some instances the staff of a mental health center may resist the implementation of an MBO program. Perhaps the basis of a portion of the resistance is anxiety, and the director should be prepared to deal with it. The prospect of personal accountability for results to be achieved, and meaningful participation in determining objectives which can be measured can produce sufficient anxiety to block implementation of the program. When compared with the traditional management system, MBO is clearly a more rational approach to planning in which specific results are identified as job expectations for a definite period of time. The method of accomplishing the results is determined by the employee, within professional standards, and with the supervisor's approval. The CMHC staff person defines those tasks which he will carry out in order to accomplish the intended results.

MBO in Public Agencies. Some argue that not-for-profit agencies cannot establish objectives in the same manner as a profit oriented organization. This argument does not stand up under scrutiny. In order to exist, a public agency must provide a service which is accepted by a certain population. A CMHC is accountable for accomplishing specific results in much the same way a manufacturing organization is responsible for producing a profitable product. The primary differences are the results to be achieved and the methods to measurement achievement.

In CMHCs where services to people are products to be measured, less sophisticated measurements are currently available than are found in the organization whose products are more tangible. Nevertheless, the absence of sophisticated measurements does not automatically preclude the public agency from using those which are available, and to continue the search for more effective measures.

Objectives should define the results to be accomplished, rather than activity leading to that result. To be sound, objectives should be as specific as possible in terms of amounts, time, percentages, quality, etc. Stating objectives in such terms as "complete project on schedule" or "carry out plan" is not setting objectives at all, but merely pointing out areas of activity for the individual.

Suggested Model. One model for writing objectives that offers a structure to meet specific measurements is as follows: "action/result/measurement/date/cost." The action verb states the desired action

while results evolve. This is followed by the criteria by which the result will be measured. The date refers to a time frame within which it is anticipated that the action will be completed. Cost refers to the allocation of financial resources to the objective which can either reflect the upper limit of funds for the total objective, or the average unit cost.

An example of an objective using this kind of format would be:

To process 100% of emergency applicants within 24 hours with a dropout rate of no greater than 2% at an average cost per person not to exceed $50.00.

Extreme accuracy is not critical, especially when beginning an MBO program. Estimates are acceptable with broad measurements becoming more meaningful and accurate as more experience is gained in utilizing the MBO approach.

How Many Objectives? When implementing a management by objectives program in a mental health center, it is not desirable to attempt to catalog all the specific behaviors the manager wishes each staff member to achieve, nor is it desirable for each staff member to make a list of all things they wish to achieve. This type of list often resembles a statement of tasks or activities. The staff member may be uncertain of what is to be achieved other than a lot of activity. Too many objectives tend to overwhelm an individual and render the total program ineffective. As a general rule, each staff member should have five or six major objectives with sub-objectives. A CMHC staff member with too many objectives may feel that he cannot possibly achieve all of them and consequently does very little on any of them.

Very closely related to a number of objectives is the degree of emphasis. Objectives are more effective when the director and the staff member give priority to the objectives and negotiate a percentage value for each of them. If there are three objectives, for example, the percentage might be 40% for the first, 40% for the second, and 20% for the third. The setting of percentages also helps the staff member to do a more realistic job of planning his work. It may be discovered that objectives have been either undervalued or overvalued. Objectives which were believed to be very important may be of such little value that they should be combined with other objectives and not given special emphasis.

Objectives should describe what is considered to be an acceptable standard of performance. This determines the level of accomplishment to be achieved if the person works well and in the right direction. In addition, it indicates to the individual what level must be reached in order to be recognized as outstanding. Unrealistic and unobtainable objectives do not act as a stimulus to increase job performance, but tend to discourage staff members to the point of inaction. Objectives that are too simple often have the same effect and they may communicate a lack of confidence in the staff person's ability.

Performance Standards. An issue which the director must consider is performance standards. A major consideration in this issue is the experience of the individual. Objectives for a staff person in the early phases of his career development may need to be less difficult than those for a more experienced individual. One of the most frequent errors in setting objectives relates to overlapping objectives. Traditionally the accountability of the individual assumes that if objectives overlap something must be wrong. As a practical matter, objectives that do not require the work of two or more people are rare. There is nothing wrong with the same objective for two or more people, using it as partial measurement of each person's performance. Overlapping objectives offer an effective way of promoting cooperation and communication among individuals.

Participation in MBO. Objective setting should be a dynamic, fluid process. Objectives should not be set from the top down (e.g., the CMHC director determining all objectives for everyone in the organization). To be effective and to gain commitment to the objectives and purpose of the center, the staff need to be involved in setting their own specific objectives, and in contributing to the overall organizational objectives. The various levels of the administrative staff must be sensitive to the refined objectives developed by the lower levels of staff.

Center staff members should be given training and experience in writing objectives. The training at this point may well help the center avoid wasting time and energy in the development of individual objectives. Training should start with the top administrative staff and proceed through all levels.

The "perfect" MBO program should not be required or expected. In the beginning a program will be crude and tentative. Improvement will come slowly in small increments. Setting objectives for only part of the job during the first year may be feasible followed by slowly proceeding in the development of objectives until the total agency is covered.

Completion dates should be set for each of the objectives and specific review dates set to determine progress. Early recognition of constraints which hinder the achievement of an objective can be dealt with so problems are kept to a minimum. Review of objectives should include the establishment and refinement of continuing or new objectives. (See appendix 1 for the Specifics of the Range Mental Health Center MIS).

Summary. This discussion has outlined some basic parameters and techniques of a new approach to understanding of organization management--MBO. By focusing on what a mental health center is (i.e., meeting human needs), by viewing the center as a system, by directing

attention to the complex relationships between people, organizations and society, and by limiting objectives to outputs, not activities, an understanding of mental health systems begins to emerge. This understanding should develop the ability to change the system as the need may arise.

External and internal strategies affect the creation of an organizational structure. Without a well-defined structure, daily operations would be in a state of chaos, at best, and utter disaster, at worst. Key concepts in the development of organizational structure include:

- Centralization vs. decentralization
- Lines of authority
- Spans of control
- Direct and indirect reporting

Centralization vs. Decentralization. Functional areas could report to a central administration or act autonomously. Whether units are centralized or decentralized depends largely on center philosophy, external funding sources, and the type of internal management. Determination of degrees of autonomy within the organization has a direct bearing on the design of an information system. The intensity and direction of information flows (and the design of the IMIS) follow the allocation of autonomy.

Lines of Authority. Once the roles of various managers have been defined in terms of line and staff authority, reporting tracts can be more easily determined. Clearly established lines of authority are required to adequately design and plan information systems and flows.

Spans of Control. Operating in tandem with lines of authority is the definition of span of control. A span of control is a manager's total area of responsibility, for example, a center director would be responsible for the control of all operations within the center and would be expected to be knowledgeable of activities in each of the program areas. The definition of each manager's span of control is important in the structuring of an information reporting system. Assessing spans of control at various levels help determine information requirements.

Direct and Indirect Reporting. In most cases reporting lines to superordinates will be adequately defined by established lines of authority and spans of control. In many instances, however, subordinates have reporting requirements to managers in the organization other than their immediate superiors. This phenomenon is known as indirect reporting. For example, a social worker in an alcoholism program may be responsible to the center manager who is in charge of all center programs but may also have indirect reporting responsibility to the county-wide manager for the alcoholism programs. These relationships must be clearly identified to determine information requirements and flow of reports.

All four of these key concepts work together in building a well-defined organizational structure. With their use the varied informational needs of the various levels of a CMHC organization can be identified and integrated.

IMIS Design Strategies

After the programmatic strategies and structure of the organization have been identified, consideration of internal IMIS design strategies is appropriate. John Richard Elpers and Robert Chapman (1973) offer five major requirements:

Five major requirements must be considered in designing a management information system:

- *Define how current resources are being spent*
- *Assess the patterns of the service system*
- *Provide monitoring aids for program managers*
- *Provide data for multiple reporting requirements of funding agencies and*
- *Generate necessary data for planning purposes.*

Current Resource Allocation. The first requirement for a management information system is that it portray how resources are being spent currently. The system must show how each staff member is spending his time in direct and indirect services in each of the organizational units. By subtracting the time spent in direct and indirect services from total duty time, the time involved in administrative or "overhead" activities can be determined. A further necessity is the ability to determine how many patients or units of service result from a given quantity of professional time expended, e.g., a family or a group treatment modality will reach far more people than an individual psychotherapy session. These data must be gathered by the same organizational delivery units or cost centers as are used by the agency's accounting system. Cost of services, both professional time and overhead, can then be determined to set appropriate cost-based rates. These rates can most appropriately be determined by dividing the cost of the professional service (including appropriate overhead) by the number of persons seen during that time period. The later discussion on cost-finding illustrates multiple ways of determining rates; but without clear definitions of services, it is impossible to compare the cost of competing programs to assess efficiency.

Another aspect of the resource allocation requirement is the ability to determine the at-risk population versus the population receiving services. It is easy to guarantee a successful program by patient outcome criteria if the clientele are carefully selected at the outset. In order to be assured that programs are indeed serving the community providing the financial support, the MIS must be able to show that the clientele appropriately reflect the population of the community expected to need the services.

Assess the Patterns of the Service System. The second major requirement of a management information system is that it be able to assess organizational patterns. This requirement extends to both intra- and interagency systems. Within the agency, it must concern itself with overlapping responsibilities, differences in professional roles, continuity-of-care and the follow-up of those clients who drop out at inopportune times during their treatment. The interagency responsibility of the management information system includes consideration of overlapping service areas, overlapping responsibilities and issues of continuity and integration of services. Patterns of referral-in and referral-out must be assessed to have a vehicle to cross-tabulate the patterns with other relevant variables.

Monitoring Aids for Program Managers. An effective management information system must allow a manager to quickly and regularly monitor the entire program. This monitoring can take the form of reports on the characteristics of the population served, admissions, discharges, etc. Additionally the system must also detect and list those patients dropping out of the system, not making referrals, and staying in the program for excessive periods of time, and even monitor the accurateness and timeliness of the data submitted to it.

Meet Multiple Reporting Requirements. A fourth and possibly most obvious requirement of the management information system is to be able to meet the multiple reporting requirements. With money comes strings and an important string is data fed back to the funding agencies. These agencies might include federal grant providers, state agencies which frequently contribute the greatest share to budgets, and local governing and advisory boards which are attached. These existing requirements, as well as future probable requirements, must be considered in designing the data system. Because of the difficulty of predicting what requirements will be made, the system must be flexible and easily modified at a low cost.

Generate Planning Data. The last identified major requirement is providing the necessary planning data for the agency. These data enable:

- Short-range decisions such as reallocation of staff and other resources and assuring the availability of services to those populations identified as underserved
- Long-range problems such as the effectiveness of service elements, treatment methods and personnel and the development of cost effectiveness data to insure innovative programs and better services to specific groups and individuals.

Planning requires answers to multiple critical questions. These questions frequently involve outcome variables. While the management information system may not provide patient outcome data of sufficient sophistication to be utilized in long-range decision making, it must be designed with the need for such studies in mind. A system so designed will provide sufficient documentation to accomplish such studies.

Conversely, data concerning patient outcome are of no value if what brought about those changes cannot be documented.

Obviously the data required for planning will change and any management information system must be highly flexible to accommodate changing questions.

REFERENCES FOR CHAPTER 1

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Hunter, William. Management by Objectives: The Essentials and the Results. Virginia, Minnesota: Range Mental Health Center, Inc., 1973.

Sterling, Virgil. External Perspectives Identifying and Coping with Political and Economic Forces. Boise, Idaho: Division of Environmental Protection and Health, State of Idaho, 1973.

APPENDIX 1

THE SPECIFICS OF RANGE MENTAL HEALTH CENTER MANAGEMENT INFORMATION SYSTEM*

William F. Hunter
Virginia, Minnesota

The Range Mental Health Center is situated in Virginia, Minnesota, a small town located in northern Minnesota. The center serves a population of 100,000 people located in the northern two-thirds of St. Louis County which is adjacent to the Canadian border. The area covers a series of 14 small mining towns, strung along the Mesabi Iron Range located in the Superior National Forest.

The area is isolated from large urban areas, with Minneapolis-St. Paul located 200 miles to the south. A staff of 10 professionals man the program which was initiated in 1962. Services provided range through all age groups and the entire spectrum of mental health services.

Developing Objectives. To implement the Range Mental Health Center's MBO program, the director attended a course on the subject conducted by an institution of higher learning in Minneapolis. Upon completion of this training, the director met with the board of directors and the staff of the center. During several working sessions the overall goals and objectives for the center were developed (exhibit A). Following this, each staff member assumed responsibility for developing a detailed list of objectives for a 1-year period.

*The following is a description of an operating MIS using MBO. The objective of this appendix is to present the content and process of an actual operating system in some detail. Conference discussions of this system identified the following questions for further analysis:

- Is the time accounting process too detailed?
- Could the forms be redesigned to capture data more efficiently?
- Could the elements of some of the various subsystems be better integrated (e.g., matching of detailed data of patients and staff)?

EXHIBIT A

RANGE MENTAL HEALTH CENTER, INC.
624 South Thirteenth Street Virginia, Minnesota

GOALS OF RANGE MENTAL HEALTH CENTER PROGRAM

The staff and board have been reviewing overall goals of the program, individual consultative relationships, and various procedural questions in an effort to arrive at a point where we can set formal priorities. For the reader's information we have printed below the goals of the Range Mental Health Center program as they are seen at this time.

1. General goal of the program is to take dual action which will reduce the incidence and prevalance of psychiatric casualties in the catchment area. The term "incidence" refers to the number of cases present in the catchment area at any one time; this is a function of incidence of new casualties, severity of their condition, and duration of their condition. In general, our goal should be (1) to help create the conditions which will prevent these casualties from occuring in the first place; (2) to create those conditions which will facilitate rapid recovery of casualties or rehabilitation of previously existing casualties.

2. In a community which is not overly rich in caretaker resources, the staff has a significant role in helping to up-grade the quality of existing caretaker resources. By quality we refer to the skills of existing caretakers, their willingness and motivation to work with psychiatric casualties. The primary techniques that we have been using include case consultation, in-service training, and assisting in the expansion of present programs and public education.

3. In a community which is not overly rich in caretaker resources, the existing resources must be used with maximum efficiency. The Center has an important role to play in improving communication and coordination between existing community resources. It is our hypothesis that we can obtain a significant return, in terms of quality of help available to psychiatric casualties, by helping to develop an efficient network of resources working smoothly together. The development of new resources which offer independent and fragmented services will not yield as great a return in the long run as will a coordinated network of resources.

4. The Center has an important function in helping to establish new caretaker resources in order to fill gaps in the existing network of resources and to help integrate these effectively into the caretaking community.

5. Implicit in the above is our desire to promote involvement of as many resources as necessary in the management of actual or potential casualties in the community. Expanding on this theme of "promoting involvement", an equal goal should be to promote the public's involvement in the prevention of actual or potential psychiatric casualties and in their management when they occur. We need to find ways to increase the level of comfort and

willingness of people to assist other people in coping with their problems This requires a public education program which provides general information on coping techniques, needs of the community, and the role of the various existing community resources.

6. The above model is primarily a "sociological and public health model." The implications of "sociological and public health model" are that the community is helped to develop the resources and techniques needed to cope with identified problems, for prevention and treatment to accomplish this, problems must be identified and techniques and resources appropriate for management of these problems must be determined. This requires a research effort, and an intimate personal knowledge of the community on the part of the staff and board.

7. The Range Mental Health Center should render clinical services under some circumstances. In order to reduce the prevalence of psychiatric casualties day by day and to promote their rehabilitation, it is understood that this effort will occupy approximately 40% of staff time.

8. Manpower is always a problem. There is not enough mental health manpower to go around. We have a responsibility to attempt to promote the development of mental health manpower and to facilitate appropriate utilization of whatever manpower is available. Implicit in this is a training function. We should attempt to train existing community caretakers in mental health related functions that are appropriate for their particular profession. We also should assist in training a new mental health manpower. This training function can generally serve two purposes. It can either bring in new people to the area who may choose to stay or can bring new ideas to the area which can take root.

The above list represents both a general set of goals and a general set of alternatives which can be used to reduce the incidence and prevalence of psychiatric casualties. We propose to deal as effectively as possible with problems as now exist; and through means of research, and public education, to attack problems of prevention.

The staff will function in a dual role which recognizes the essential value of past experience as represented by the diagnostic and therapeutic clinic, be it medical or sociological or psychological, and the most important, though less well defined public health approach to sociological problems, recognizing that it is sound to proceed step by step from known to unknown.

Exhibit B shows the type of form that each staff person used and some sample objectives.

The standard operating procedure required each staff member to develop an assumption first and then describe his objective for the coming year including quantifiable form as much as possible. Initially close supervision of staff members is important to help dispel frustrations which may impede the individual's completion of the project.

The Range Mental Health Center plans its program on a 9-month basis from Labor Day through Memorial Day, (several programs do not function during the summer months). The preparation of objectives is completed by June 1 and the MBO program implemented September 1. Evaluation periods are automatically built in for January and May of each year.

Beginning an MIS. A cardinal principle in designing a management information system for a mental health center is to insure that the data collection is comprehensive, accurate and economical. Minimizing demands on professional staff time is essential and the system should be geared to the available expertise of clerical personnel.

In 1963 the staff of the Range Mental Health Center initiated an information gathering system concerned with patient data and the delivery of indirect services, particularly consultation and education. The system was relatively crude and utilized the McBee Card System. At that time the center program was not as diversified, met the needs of the staff, and was within the confines of both time and available funds. Gradually the center staff added material to the hand operated system until finally it collapsed from its own weight. In 1968 the center negotiated the use of a mining company computer at no cost. A small grant of $3,500 was obtained from the Minnesota Department of Public Welfare to employ a computer programer for writing the necessary program.

Patient and Staff Input Forms. All necessary program data is contained on two forms which are attached as exhibits C and D. Exhibit C is a patient information input form. Each time a patient is seen at the Range Mental Health Center this form is completed. These are collected by the clinical records secretary who forwards them monthly to the key punch operator.

Exhibit D is the raw data card that captures information concerning the activities of the professional staff. Each staff member is required to record his professional activities in 10 minute increments on an 8-hour day, 40-hour per week basis. All 8 hours of his time must be accounted for since a computer will not accept a weekly total below 40 hours. The staff member can record time in the following categories:

EXHIBIT B
(seven pages)

DETAILED PROGRAM EVALUATION FORM

ASSUMPTIONS	OBJECTIVES	EVALUATIONS 1 January					EVALUATIONS 1 May					COMMENTS ON PERFORMANCE REVIEW
List in priority the key assumptions having to do with your work plans for the coming year.	List the specific results you expect to accomplish in the next year for each assumption. Objectives should include what is to be accomplished, by what date, cost, etc. These statements will be the basis for program review	Exceeded	Achieved	Partially Met	Little Done	No Activity	Exceeded	Achieved	Partially Met	Little Done	No Activity	Enter possible reasons why some objectives were achieved and others were not, such as lack of manpower, monies, etc.
EXAMPLES OF INDIVIDUAL STAFF MEMBERS SPECIFIC GOALS AT THE RANGE MENTAL HEALTH CENTER												
1. One of the prime responsibilities of the area program is to assist the St. Louis County Welfare Dept. and the St. Louis County Probate Court in implementing the Minnesota Hospital and Commitment Act.	1. The first objective is for our staff to act as consultants to the County Welfare Dept. in developing options other than hospitalization at Moose Lake State Hosp. 2. Act as examiners in commitment hearings and offer altnatives to state hospitalization. 3. Develop programs in the Virginia and Hibbing General Hospitals to handle short-term acute psychiatric cases. 4. Increase by 25% the use of Day Hospital by 7-1-72 as an alternative to Moose Lake State Hospital and to use it for earlier discharge from Moose Lake State Hosp.											

EXHIBIT B (continued)

ASSUMPTIONS	OBJECTIVES	EVALUATION 1 January: Exceeded	Achieved	Partially Met	Little Done	No Activity	EVALUATION 1 May: Exceeded	Achieved	Partially Met	Little Done	No Activity	COMMENTS ON PERFORMANCE REVIEW
	5. Use the Range Unit at Moose Lake State Hospital as a demonstration project for the"30-day" proposal and have the plan operational by 9-1-71.											
	6. By 7-1-72 have developed a half-way house program for Moose Lake State Hospital dischargees at the Buhl Nursing Home.											
	7. Continue to develop the authority and usefulness of the Moose Lake State Hosp. Liaison Committee											
Institutionalization at Moose Lake State Hospital is not desirable if other options can be exercised.	1. Reduce admission rates by 10% by 7-1-71.											
	2. Reduce the length of hospitalization to 30 days by 7-1-72											
	3. Reduce readmission rates by 10% by 7-1-71.											

EXHIBIT B (continued)

ASSUMPTIONS	OBJECTIVES	EVALUATION 1 January					EVALUATION 1 May					COMMENTS ON PERFORMANCE REVIEW
		Exceeded	Achieved	Partially Met	Little Done	No Activity	Exceeded	Achieved	Partially Met	Little Done	No Activity	
If hospitalization at Moose Lake State Hospital is necessary then it should be voluntary rather than by commitment	1. Reduce the rate of commitment by 20% by 7-1-71 2. Reduce length of commitment to 30 days 3. Reduce recommitment by 20% by 7-1-71											
Many alcoholics require emergency medical treatment and detoxification services	1. By 7-1-72 have a well defined, manned, and operational detoxification team at the Virginia Municipal Hospital											
Small, community based residential programs for the mentally retarded are to be preferred over large remotely located State institutions	1. The staff will assist the Range Center, Inc. in every way possible to establish its facility and program											
Drug abuse problems will become more acute with the passage of time	1. The primary approach of Range Mental Health Center will be an educational one. We plan a regional depository for educational materials on drugs. 2. We will offer outpatient treatment when it is appropriate											
Rural mental health staff personnel are isolated, have minimal opportunities for professional interactions	1. The Range Mental Health Center staff plans to host an international conference on rural mental health programs in April, 1972											

EXHIBIT B (continued)

ASSUMPTIONS	OBJECTIVES	EVALUATION 1 January					EVALUATION 1 May					COMMENTS ON PERFORMANCE REVIEW
		Exceeded	Achieved	Partially Met	Little Done	No Activity	Exceeded	Achieved	Partially Met	Little Done	No Activity	
If we have information regarding the types of problems encountered in our catchment area and the cost of our various programs, we will be able to plan a more effective delivery of our services	1. A computerized data collection system will be in operation by June, 1972. This system will, in addition to giving information regarding the delivery of our services also provide us with more information regarding needs in the community and will enable us to do program budgeting.											
2. PROGRAM OBJECTIVES												
A. TREATMENT												
Dealing with a person and his family during a crisis is more effective and more economical of staff time than in dealing with them after the crisis has abated	1. Every crisis situation reported to the Center will be handled the same day											
Good administration requires that feedback data be available to ascertain if the program is adhering to the predetermined objectives	1. A new computer-based data collection system will be designed using 314 (d) funds which were allocated for this purpose. The system is to be operational by 9-1-71											
Clinical records are significant information and must be current, complete and informative	1. By 9-1-71 a revised system of clinical records will be in operation and all records will be kept current											

EXHIBIT B (continued)

ASSUMPTIONS	OBJECTIVES	EVALUATIONS 1 January					EVALUATIONS 1 May					COMMENTS ON PERFORMANCE REVIEW
		Exceeded	Achieved	Partially Met	Little Done	No Activity	Exceeded	Achieved	Partially Met	Little Done	No Activity	
Restoration of the disturbed person to maximal socio-economic function is an essential criterion of successful patient management	1. By 9-1-71 the treatment plan for every patient will state the goal for his socio-economic restoration, and how his management is designed to reach that goal											
Delegating authority for therapeutic decisions to a single staff person accelerates and improves patient care and movement	1. Every patient will be assigned to a staff member who has the authority to make all decisions required for the patient's care and management. The staff person is expected to seek consultation from other staff when appropriate											
Joint interviewing with the consultee and the disturbed person is a preferred technique since it does not label the individual as mentally ill and has a built-in demonstration teaching component	1. All staff will make an effort to increase their joint interviewing by 25% by 7-1-72											
Mental health program personnel can help practising physicians to manage psychiatric problems	1. By 9-1-71 each staff member will have assumed liaison responsibility for a group of these community caretakers. He will develop and present to staff a proposed plan of consultation and education services to his groups											

EXHIBIT B (continued)

ASSUMPTONS	OBJECTIVES	EVALUATIONS 1 January					1 May					COMMENTS ON PERFORMANCE REVIEW
		Exceeded	Achieved	Partially Met	Little Done	No Activity	Exceeded	Achieved	Partially Met	Little Done	No Activity	
There are a wide range of community caretakers - clergy, teachers, PHN-, caseworkers, physicians, probation officers, etc. who are potentially valuable participants in the case of emotionally disturbed, and mentally retarded and inebriate persons	1. By 9-1-71 each staff member will have assumed liaison responsibility for a group of these community caretakers. He will develop and present to staff a proposed plan of consultation and education services to his groups											
Nursing homes can care for a high percentage of chronically ill psychiatric patients	1. The number of geriatric admissions to Moose Lake State Hospital is to be cut by 50% by 7-1-72											
Because of the small number of mental health professionals in this area, their expertise should be made available to others as much as possible	1. The goal is to have at least one college course taught in the area by Range Mental Health Center staff member by 7-1-72											

EXHIBIT B (continued)

ASSUMPTIONS	OBJECTIVES	EVALUATIONS												COMMENTS ON PERFORMANCE REVIEW
		1 January						1 May						
		Exceeded	Achieved	Partially Met	No Activity	Little Done		Exceeded	Achieved	Partially Met	Little Done	No Activity		
The use of multi-media will enhance all facets of the Range Mental Health Center program	1. Develop at least one demonstration teaching video tape by 7-1-72 2. Develop an 8mm. color movie film for recruitment purposes by 7-1-72 3. Develop a 16mm. color film on the Range Mental Health Center program by 7-1-72													

EXHIBIT C

RANGE AREA HUMAN RESOURCES BOARD

CLIENT'S NAME: _____ CASE #: _____ (1-5) THERAPIST: ____ (6-7) DATE: _____ (8-13)

STATUS OF CASE: (14)	New(1) Reopen(2) Cont.(3) Closed(4) Trans(5) || RMHC #: _____ (16-19)
MAR.ST.: (20)	Single(1) Married(2) Divorced(3) Separated(4) Widowed(5)
SEX: (21)	MALE(8) FEMALE(9) || TOWN: _____ (23-25)
AGE: (26)	0-4(1) 5-14(2) 15-19(3) 20-24(4) 25-34(5) 35-44(6) 45-54(7) 55-64(8) 65+(9)
EDUC: (28-29)	None(01) 9th gr(03) 1 yr col(05) 4 yr col(07) Voc.Bus.(09) Unknown(11) 6th gr(02) 12th gr(04) 2 yr col(06) Grad.Sch.(08) Spec.Educ.(10)
REFERRED FROM: (31-32)	Self(01) Medical(05) Rehab(09) Day Hosp.(13) Other(17) State Hosp.(02) Clergy(06) Courts(10) RMHC (14) None(18) Relative(03) CWD (07) ACPD (11) Priv.Psy.(15) Police(19) Employer(04) School(08) RACDRC(12) Oth.Trt.Facs.(16)
DIAG. CATEGORY: (34-35)	M.I. (01) Emot.Dist.(02) Alc.(03) M.R.(04) Drug Abuse(05) Drug & Alc.(06) Other(07) Organic(08)
DISP. TO: (37-38)	Self--Needed(01) Employer(04) School(08) RACDRC(12) Oth.Trt.Facs.(16) Self--NotNeeded(21) Medical(05) Rehab(09) Day Hosp.(13) Other(17) Death(20) State Hosp.(02) Clergy(06) Courts(10) RMHC (14) NONE(18) A.A.(22) Relative(03) CWD (07) ACPD (11) Priv.Psy.(15) Police(19)
TREAT.MODAL: (40-41)	Ind.(01) Family(02) Group(03) Mrg.(04) Eval.(05) ChemTh.(06) Ind. & Gr.(07)
FEE: (43-44)	Amount _____
FEE SOURCE: (46-47)	Self(01) H.H.(02) CWD(03) IVa(04) Priv.Ins.(05) None(06)
PREV. M.H. SERVICE: (49)	None Known(1) Mn.State Hosp.(2) Inpt.Psy.Care(3) Out Pt. Care(4) Priv.Practice(5) OTHER(6) Hope House(7)
PROG. CATEGORY: (51-52)	I.P.: Gen.Hosp.(01) State Hosp.(02) H.H.Detox.(03) H.H.Treat.(04) Other(05) O.P.: RMHC (06) Hope House(07) ACPD(08) Interm.Care(09) Part.Care(10) 24-HR.EMERG.: RMHC(11) Hope House(12) ACPD(13)
OCCUP.: (54)	Unskild(1) Skild(2) Profess.(3) Unknown(4) Stdnt(5) HouseWife(6) None(7)
RELIGION (55)	Cath.(1) Prot.(2) Jew(3) Other(4) None(5) Unknown(6)
ETHNIC: (57-58)	Eng.(01) Finn.(02) French(03) Germ.(04) Ind.(05) Irish(06) Ital.(07) Scand.(08) Slov.(09) Other(10) Unknown(11) Non-Eur.(12)
LOCATION (60)	Urban(1) Rural(2) Transient(3) Unknown(4)
NO. OF DAYS	Inpt. _____ (62-63) Out Pt. _____ (65-66) D.H. _____ (68-69) 24 Hr.Serv. _____ (71-72)
MENTAL DISORDER:	(74-75) _____
LIVING WITH (76)	Parents(1) Spouse(2) Oth.Relative(3) Friend(4) Instit.(5) Alone(6) Unknown(7)
AGENCY: (78-80)	RMHC (012) ACPD (014) RACDRC (016) D.H. (018)

EXHIBIT D
(nine pages)

RANGE MENTAL HEALTH CENTER

624 South 13th Street Virginia, Minnesota

A C T I V I T Y C A R D

DATE / / (1-6) HOURS (8-11) STAFF (13-14) # of STAFF (16-17)

LOCATION (19-22) AGENCY (24-27) SIZE (29-31)

GRANT (specify) (33-34)

TRAVEL (36-37)	(08) Int.Care (01) I.P. (02) O.P. (03) 24-HR (04) CONS (05) TRG & ED (06) RES (07) ADM
PROBLEM OF CASE (39-40)	none(01) spec.sym(05) neur(09) psych(13) MR(17) C.P.(21) mrg(02) delq(06) cul.dep(10) per(14) fam(18) phobia(22) alc(03) soc.prob(07) som(11) trans(15) other(19) sex(04) lrg.dis(08) drug(12) hyper(16) suicide(20)
INTER-CARE: (42-43)	YOUTH: sch(01) prob(02) church(03) Gen(04) prep(19) post(20) ADULTS: single(21) married(22) parents(23) gen(24) prep(39) post(40) GERIATRIC: church(41) N.Hms(42) Sr.Cits(43) gen(44) prep(59) post(60) VOLUNTEER: trg(61) prep(62) post(63) CARETAKER: prep(98) post(99)
I.P. (45)	TREAT(1) EVAL(2) COURT(3) RECORDS(4)
O.P. (47-48)	EVAL: Court(01) C.P.(02) routine(03) Time with Caretaker(13) TREAT: ind(04) mrg(05) fam(06) group(07) Time spent alone(14) Chemotherapy(08) Jnt.Int.(09) Home V.(10) Time with patient(15) Pre & After(11) Records(12) Time with pt. & Caretaker(16)
24-HR (50)	PHONE: Client(1) Consultee(2) Pt. Eval-treat(3)
CONS (52)	case(1) adm(2) pers(3) CCP(4) CD(5)
TRG. & EDUC. (54-55)	Intern(01) Secy(04) News(08) Gen.Pub-Speech(11) RMHC Bd.(13) insv.(02) V.Prof(05) sab(09) Gen.Pub-prog.(12) T.V.(07) RMHC staff(03) radio(06) M.Media(10) I&R Prof(15) Volun(14)
(57) RESEARCH	(1) RMHC (2) PROF (3) SURVEY (4) OTHER (5) DATA COLL.
ADMIN. (59-60)	MEET: Staff(01) Secy(02) Local(03) State(04) Nat'l(05) FUND: Local(06) State(07) Federal(08) Detox(24) RMHC Bd(25) LEG: Local(09) State(10) Federal(11) corres.(12) recruit(15) vac(18) misc.(21) bldg. & gr.(13) orient(16) comp(19) holiday(22) phone(14) P.R.(17) sick(20) Admin. Records(23)

5-73 (002)

EXHIBIT D (Continued)

Written: MSL
Date: 11/6/70
Reviewed:
Revised: 10/16/72

RANGE MENTAL HEALTH CENTER, INC.

624 South 13th Street Virginia, Minnesota

ACTIVITY CARD

DATE: HOURS: (record actual amount of time spent in 5 minute periods)
STAFF: # of STAFF:

LOCATION: (case consultation - put residence of case being discussed, same true for Inter Care, I.P., O.P., and 24-hour contacts)

AGENCY: (name, also title) SIZE: # of pts. for Inter Care, I.P., O.P., and 24 Hr. or # of caretakers you met with

GRANT: All Funding and Grant activities -- always specify (secretaries, too)

TRAVEL: (Circle the ones that apply) Inter Care, I.P., O.P., 24-Hr., CONS, TRG & ED, RESEARCH, or ADM

TYPE OF PROBLEM: (Prob)

A. Case Oriented (CASE) (primary problem) for all I.P., O.P., 24-Hr., and CONS - be sure to fill this in

01. none
02. marriage (mrg)
03. alcohol (alc)
04. sexual (homosexual, exhibitionism) (sex)
05. special symptom (enuresis, tic, speech) (spec. sym.)
06. delinquent reaction (delq)
07. social problem (unacceptable to peers, teacher, etc.) (soc. prob.)
08. learning disability (lrn. dis.)
09. neurotic (neur.)
10. cultural deprivation (cul. dep.)
11. psychophysiologic disorder (eg. respiratory, gastric intestinal) (som)
12. drug (drug)
13. psychotic (psych)
14. personality disorder (per. dis.)
15. transient situational disturbance (trans)
16. hyperkinetic (hyper)
17. mental retardation (MR)
18. family (fam)
19. other (specify)

I. Intermediate Care (Inter Care)

A. Youth

01. school
02. probation

I. (Inter Care) (cont.)
- 03. church
- 04. preparation
- 05. post evaluation

B. Adults

- 21. single
- 22. married
- 23. parents
- 24. preparation
- 25. post evaluation

C. Geriatrics

- 41. church
- 42. nursing home
- 43. senior citizens
- 44. preparation
- 45. post evaluation

D. Volunteer

- 61. training
- 62. preparation
- 63. post evaluation

E. Caretaker

- 98. preparation
- 99. post evaluation

II. In-patient (I.P.)

1. treatment (treat)
2. evaluation (eval)
3. court commitment (court)
4. records

III. Out-patient (O.P.)

A. Evaluation (eval)

- 01. court commitment (court)
- 02. CP clinic (CP)
- 03. routine (rout)

B. Treatment (treat)

- 04. individual (ind)
- 05. marriage (mrg)
- 06. family (fam)
- 07. group (gp)
- 08. chemotherapy

B. Treatment (cont)

09. joint interview with consultee (Jnt. Inter) Enter only pts. involved in SIZE above
10. home visit (Home V.)
11. Pre and After care (contacts with CWD in which patients are seen (pre and after)
12. Records (any correspondence in regard to patients, work with blue files or black books)
13. Time with Caretaker - Walk-in Centers only
14. Time spent alone - Walk-in Centers only
15. Time with patient - Walk-in Centers only
16. Time with patient and caretaker - Walk-in Centers only

IV. 24-Hour emergency service (professional service performed at times other than working hours) (24-HR) (If you receive a call and then go to a hospital, fill in two cards - reporting telephone and eval-treat)

1. client (cl)
2. consultee (cons)
3. evaluation and/or treatment (eval-treat) (patient)

V. Consultation (CONS) (each case discussed requires one card)

1. case, client not present (case)
2. administrative (e.g., intra agency problems - writing grants for other agency, e.g., any involvement with an agency board) (adm)
3. personal needs of consultee (pers)
4. community coordination and planning (CCP) (Inter agency problem affecting more than one system)
5. community development (CD) (development of the consultee relationship)

VI. Training and education (TRG & EDUC.) (Include time spent in preparation, fill in top of activity card, excluding only the size)

01. intern (intern)
02. in-service, other professional (insv) (include time spent in preparation)
03. RMHC professional staff (RMHC staff)
04. RMHC secretarial staff (secy)
05. visiting professionals (V. prof.)
06. radio (radio)
07. television (T.V.)
08. newspaper (news)
09. sabbatical (sab)
10. multi-media (all time spent directly with multi-media - e.g., preparing of training film, taking pictures, etc.) (M. media)
11. general public - speech (sp)
12. general public - program (prog)
13. RMHC BOARD
14. volunteers (volun)
15. I & R professional staff time (I & R Prof.)

VII. RESEARCH

1. RMHC research (RMHC)
2. professional writing (prof)
3. surveys (surv)
4. other (specify)
5. data collection - RMHC (Data Coll)

VIII. ADMINISTRATIVE (ADM)

A. Meetings (meet)

01. RMHC professional staff (staff)
02. RMHC secretarial staff (secy)
03. local (local)
04. state (state)
05. national (natl)

B. Funding (fund) (please specify above under GRANTS exactly the type of funding)

06. local (local)
07. state (state)
08. federal (fed)

C. Legislation (leg)

09. local (local)
10. state (state)
11. federal (fed)

12. correspondence (corres)
13. building and grounds (bldg & gr.)
14. phone calls (phone) (DOES NOT include consultation calls)
15. recruitment of staff (recruit)
16. orientation of visitors (orient) (casual, informal contacts with our facility)
17. public relations activities (P.R.)
18. vacations (vac)
19. compensatory time (comp)
20. sick leave (sick)
21. misc. (misc.)
22. holiday
23. administrative records (admin records)
24. detox (time spent on the detox program)

Date: 9-3-71
Reviewed: 1-24-73
Revised: 1-24-73

EXHIBIT D (Continued)

RANGE MENTAL HEALTH CENTER

624 South 13th Street — Virginia, Minnesota

SECRETARIAL CODING SHEET
FOR
ACTIVITY CARDS

RMHC STAFF

Willis Swanson	02
William Hunter	04
George Leih	07
Gordon Hoelscher	08
Jay Wall	09
Linnea Anderson	10
Nan Kribs	11
Anita Kahn	12
Larry Bultena	13
Jonathan Speare	14
M.A.Peterson	20
Mary Lorimer	21
Doris Young	22
D. Hydukovich	23
Ella Nelson	24
Jayne Welander	25

HOUR BREAKDOWN

.1 = 0 to 6 minutes
.2 = 7 to 12 minutes
.3 = 13 to 18 minutes
.4 = 19 to 24 minutes
.5 = 25 to 30 minutes
.6 = 31 to 36 minutes
.7 = 37 to 42 minutes
.8 = 43 to 48 minutes
.9 = 49 to 54 minutes
1.0 = 55 to 60 minutes

AREA TOWNS

Alango.....2501	Ely.....3431	McKinley.....3161
Angora.....2503	Embarrass.....3532	Melrude.....3566
Aurora.....3305	Eveleth.....2134	Mt. Iron.....2168
Babbitt.....3406	Fayal TWP.....2135	Nett Lake.....2570
Balkan.....1245	Forbes.....1538	Orr.....2571
Bear River.....1507	Gheen.....2540	Palo-Markham....3572
Biwabik.....3308	Gilbert.....2141	Parkville.....2173
Brimson.....3502	Hibbing.....1246	Pike.....3574
Britt.....2110	Hoyt Lakes.....3350	Side Lake.....1581
Buhl.....1213	Iron.....2551	Soudan.....3490
Buyck.....2571	Kelly Lake.....1254	Tower.....3490
Cherry.....1538	Kelsey.....1555	Toivola.....1589
Chisholm.....1219	Kinney.....1258	Virginia.....2192
Cook.....2523	Kitzville.....1247	Winton.....3596
Cotton.....3524	Leonidas.....2160	Zim.....1599
Crane Lake.....2525	Makinen.....3563	

MINNESOTA CITIES

Other.....4010	Minnesota.....4000	Eastern Geo. Area....3900
Moose Lake.....4011	State Wide.....4010	Central Geo. Area....2900
Minneapolis.....4013	County Wide.....4030*	Western Geo. Area....1900
Duluth.....4012	National.....5000	Combined Area.....0900
St. Paul.....4014	Specific State....5010	
Brainerd.....4015	Nation Wide.....5020	
	International.....6000	
	Specific Nation...6010	
	International.....6020	

AGENCY CODES

1. CLERGY: 1000

Catholic.....1100	Catholic Social Service.....1110
Protestant....1200	Lutheran Social Service.....1210
Other.....1300	

2. EDUCATION: (PTA) (CEC) (RAND) (IOPAVI) 2000

	ELEM.	JR.HIGH	SR.HIGH	PAROCHIAL	GENERAL OR UNSPECIFIED
School	2100	2200	2300	2400	2500
Administration	2110	2210	2310	2410	2510
Superintendent 2111					
Pre-School 2114					
Principal	2112	2212	2312	2412	2512
Director of Educ. (Area Coor. or Cons.)	2113	2213	2313	2413	2513
Classroom Teacher	2120	2220	2320	2420	2520
Student	2121	2221	2321	2421	2521
Teaching Specialist (Spec.Ed. or Pupil Pers.)	2130	2230	2330	2430	2530
SLD	2131	2231	2331	2431	2531
Trainable (TMR) (TMH)	2132	2232	2332	2432	2532
Educable (EMR)	2133	2233	2333	2433	2533
Speech Therapist	2134	2234	2334	2434	2534
Counselor	2140	2240	2340	2440	2540
Nurse (SCHOOL)	2150	2250	2350	2450	2550

Mental Health Council (MH Coord Comm)	2560
Nursing Education	2600
LPN	2610
Educator	2611
Students	2612
RN	2620
Educator	2621
Students	2622
Junior College	2700
Administration	2710
Teacher.	2720
Students	2730
University	2800
State College	2810
Vocational-Tech. School	2900

3. LAW 3000

Attorneys	3100
Judges	3200
Municipal	3210
District (Juvenile)	3220
Probate	3230
Sheriff	3300
Police	3400
Probation	3500
Y.C.C.	3510

Legislative	3600
County	3610
State	3620
National	3630
Administrative	3700
Mayor	3701
City Clerk	3702
County Commissioner	3703

AGENCY CODES (cont.)

EXHIBIT D (Continued)

GENERAL PUBLIC

4. WELFARE, COUNTY & COMMUNITY	4000
County Welfare (CWD)	4100
Supervisor	4110
Caseworker	4120
Mental Health Worker (MHW or MHU)	4130
Foster Home	4140
CWD Group Home	4150
WIN	4160
Volunteers	4170
OEO	4200
Head Start	4210
Outreach	4230
Community Action (CAP) Comm. Dev. Or CCA Council of Community Agencies N.L.	4300
Crisis Team - Ely	4310
Virginia Comm. Council	4320
TRUST	4330
Crisis Team - Babbitt	4340
Vets Reps	4400
Recreation Programs	4500
Senior Citizens Council	4600
Geriatric Planning	4601
All Community Clubs	4700
United Fund	4710
News Media - T.V..	4800
Mesabi Daily News	4810
State Dept. of Public Welfare (DPW)	4010

5. MEDICAL	5000
Physicians (MD)	5100
Clinic Administration	5110
Chiropractors - Osteopaths	5200
Rest Homes - Nursing Homes	5300
Hospital (Extended Care)	5400
Nurses	5410
Admin. (Med.Rec.Libr.)	5420
Volunteers & Volunteens (Auxiliary)	5430
Nurses Aides	5440
Social Service Director	5450
Public Health Nurses (PHN)	5500
Morticians	5600
County Health	5700

6. INDUSTRY	6000
Mining	6100
Railroad	6200
Electricians Union	6300

7. REHABILITATION (Kenny Rehab)	7000
DVR	7100
VAC	7200
Rehab Center	7300
State Employment (SES) (MSES)	7400
Vets (St. Cloud, etc.)	7410
Sheltered Workshop (CWDC)	7500
UCP (United Cerebral Palsy)	7600
National	7610
State	7620
County	7630
Clinic	7640

8. MENTAL HEALTH & RETARDATION	8000
Social Seminar	8010
Mini-Drug Team	8020
Drug Committees	8030
Day Activity Center (DAC)	8100
Hearthside	8110
Range Center (Range Ass'n of Retarded Children	8200
Residential Treatment Center Northwood, St. James, etc.	8210
Inebriacy Program (ACPD)	8300
Hope House	8310
Day Hospital (PDT - DH)	8400
Moose Lake State Hospital	8500
State Hospital	8510
Mental Health Centers	8600
Mental Health Board	8610
ARCH	8620
Area Cabinet	8630
Nat'l Organizations (NIMH)	8700
State Organizations (SAC) State Planning Agencies Minn. Welfare Conf. Minn. Psy. Assn.	8800
Regional Organizations	8900

9. COMBINED AGENCIES	9000
Fill in last 3 digits with 1st digit of each of the agencies at the combined meeting	

GRANTS (in Col. #33-34)

01 Crime (drug)
02 Slide
03 CP Clinic
04 Library
05 Ford Foundation
06 Parent - Fed. Staffing
07 Growth (ACPD - Detox (state)
08 State GIA
09 County Commissioners
10 United Fund
11 NMHS
12 Educ. of Handicapped Child. (Kgn Sc.)
13 Senior Citizens (Speech Therapy)
14 Detox

1-29-73 (100)

- Inpatient
- Outpatient
- Intermediate care
- 24-hour emergency services
- Consultation services
- Training and education
- Data collection
- Administration
- Travel

Each staff member records his time on a daily basis as he proceeds through a work program. At the end of the week these raw data sheets are submitted to a clerk who verifies that each staff member has accounted for 40 hours. On a monthly basis this clerk spends approximately 3 hours at a local medical clinic where the center rents the keypunch machine for $1.00 per hour including cards. The completed cards are transported to the computer where they are run and the reports produced.

The Range Mental Health Center management information system is a product of close cooperation with all members of the professional and secretarial staff. All staff personnel were involved in determining the questions to be answered and insuring ongoing support from the staff.

Many believe our management information system is unique and cannot be duplicated elsewhere. This is not necessarily so since currently there are few areas in the United States that do not have access to a computer--perhaps tucked away in the local bank, power generating facility, or an industrial concern of some type. Rarely do computers operate on a 24-hour basis; it is possible, by utilizing some degree of public relations, to obtain services free or at a minimal cost.

Monthly Time Summaries. Each month the director and staff receive a complete printout of professional time expenditures for the month and fiscal year to date as outlined in exhibit E. A coding manual available to all staff has been prepared providing definitions and procedures. After a short period of use, the staff have little need to refer to the coding manual.

Staff Support. The staff have not verbalized any reluctance in maintaining the system. Probably this is because staff members played a role in developing the system and in using its output for programming purposes. The management information system has never been the focus of staff discontent.

Cost-Finding and Rate-Setting. An hourly rate for each program element can be established utilizing the printout showing the staff hours expended in the various program elements in the Range Mental Health Center. The information can be used to charge third-party payers, as is

Written by: WFH
Date: 6-16-71
Reviewed:
Revised: 10-1-72

EXHIBIT E

RANGE MENTAL HEALTH CENTER
624 South 13th Street Virginia, Minnesota

OUTLINE OF COMPUTER PRINTOUT ON MONTHLY STAFF MAN HOURS

1. INDIVIDUAL STAFF HOURS BY PROGRAM CATEGORIES

Intermediate Care	Training
Inpatient	Research
Outpatient	Administration
24-Hour Emergency	Grants
Consultation	Travel

2. TRAVEL TIME BY PROGRAM CATEGORIES

Intermediate Care	Consultation
Inpatient	Training
Outpatient	Research
24-Hour Emergency	Administration

3. CONSULTATION HOURS AND CONTACTS

Individual Staff Members
Agency
Geographic Location

4. CONSULTATION HOURS AND CONTACTS BY AGENCY

Case
Administration
Personal
Community Coordination and Planning
Community Development

5. CONSULTATION BY AREA AND STAFF

Western
Central
Eastern
State

6. INTERMEDIATE CARE

Youth
Adults
Geriatrics
Volunteers
Caretaker

7. PATIENT TREATMENT

Inpatient
Outpatient
24-Hour Emergency Service
Geographic Location
Outpatient-Joint Interview
Walk In Centers

8. PRESENTING PROBLEM DATA

Frequency - Problem Case

9. TRAINING AND EDUCATION

All Programs by Staff
All Staff Combined
General Public - Speech by Geographic Area
General Public - Program by Geographic Area
Inservice - By Agency
General Public - Speech by Staff
General Public - Program by Staff
Inservice Training by Agency and Staff by Area

10. ADMINISTRATIVE HOURLY BREAKDOWN

Individual Staff

Staff Meetings
Secretarial Meetings
Local Meetings
State Meetings
National Meetings
Local Funding
State Funding
Federal Funding
Local Legislation
State Legislation
Federal Legislation
Correspondence
Building and Grounds
Telephone
Recruitment
Orientation
Public Relations
Vacation
Compensatory Time
Sick Leave
Holiday
Administrative Records
Miscellaneous
Detox

All Staff Combined

11. RESEARCH

Range Mental Health Center
Professional
Surveys
Other
Data Collection

12. GRANTS

done at the Range Mental Health Center. It is also useful planning information used for program budgeting in conjunction with the MBO for the coming year.

The specific techniques used to produce the hourly program rates patterned after the techniques developed by Sorenson and Phipps (see Chapter 5).

In dealing with a local health maintenance organization the director of the Range Mental Health Center found the data outlining cost of services extremely valuable. He was able to show the economics of contracting with a mental health center as opposed to private practitioners. Exhibit F shows an hourly cost comparison at the Range Mental Health Center of program elements for 1970-71 and 1971-72. A percentage breakdown of the total program is also presented.

Philosophy of Management. Participative management may be described as a partnership in which the subordinate gives freely and willingly of his ideas, judgment, expertise and energy in return for assurance of the opportunity to participate and be recognized. The subordinate has assurance that his superior has responsibility and remains fully accountable. Activities such as MBO, program budgeting and cost effectiveness programs are more useful tools when practiced in a participative management setting.

EXHIBIT F

COMPARISON OF 1970-71 & 71-72
PROGRAM ELEMENTS COSTS FOR
RANGE MENTAL HEALTH CENTER

Virginia, Minnesota

Services:	1970-71		1971-72	
	% of Program	Hourly Cost	% of Program	Hourly Cost
Inpatient	4%	$ 18.42	1%	$ 15.62
Outpatient	28%	18.55	33%	20.72
24-Hour Emergency	1%	17.08	1%	18.91
Consultation	25%	15.08	26%	16.71
Training & Education	42%	15.87	39%	17.52
Average		$ 16.44		$ 18.28

Chapter 2

HOW TO PLAY THE SYSTEMS DESIGN GAME AND WIN

The objective of chapter 2 is to identify and describe the basic principles of management information system design. These principles provide the foundation for developing a viable IMIS. Organizations with newly designed and implemented information systems tend to flow through five stages of development:

- Wild enthusiasm--having just designed a system that will be a panacea for all managerial problems
- Enlightenment--discovering that the system will not provide all answers to all managers
- Disillusionment--ascertaining that the system, in reality, provides no answers for any managers
- Persecution of the innocents--seeking out uninvolved scapegoats and rendering organizational harm unto them
- Promotion of the guilty--elevation of those responsible to a level of even greater incompetence

The foregoing evolution--facetiously stated but all too often the case--may be avoided by following the general guidelines or principles of systems design outlined in this chapter.

Managerial Questions and Reports

A research team (Simon et al. 1954 and 1972) studying the varying levels of management information needs of seven large companies identified three types of data required to answer three basic managerial questions:

- Scorecard questions
- Attention-directing questions
- Problem-solving questions

Scorekeeping includes the accumulation of data to help evaluate organizational performance from both an internal and external viewpoint--for example, reports which compare actual results with budgets.

Attention-directing is the reporting and interpretation of data focusing on the day-to-day organizational operations. Red flags are hoisted via performance reports to enable a manager to take prompt action in controlling current routine operational problems. Attention-directing uses of data are closely related to scorecard uses and in many cases both kinds of questions are answered from the same reports.

Problem-solving involves data used for nonroutine decision-making, long-range planning, special program decisions, etc. This aspect of the information systems deals in quantification of the relative merits of alternative courses of action, often accompanied by recommendations as to the best course of action.

Principles of Systems Design

Providing a relevant IMIS requires the collection and reporting of scorecard, attention-directing and problem-solving data. The principles basic to the design of a management information system (regardless of organization strategies and structure) include:

- Top administrative commitment
- Need assessment
- Accuracy
- Comprehensiveness
- Flexibility
- Parsimony
- Timeliness
- Distillation
- Constant vigilance
- Complaining people

Top Administrative Commitment. A chicken was once discussing with a hog the aspects of their respective roles in providing food for human beings. The chicken was somewhat confused by a violent reaction from the hog when she said, "I rather enjoy contributing my portion to a ham and eggs breakfast. How about you?"

The hog exclaimed, "For you it is only participation--for me it is total commitment!"

Without total commitment to the need for a management information system by highest level of administration, initiating systems design would be a vain effort. Backup, encouragement, and total involvement on the part of top management are necessary elements to insure the design, implementation, and maintenance of a quality management information system. Often top managers fail to recognize the need for their self-involvement in an information system and balk at spending the time and effort necessary (which in most cases is time and effort they can't afford not to spend) to attain the desired goal.

Need Assessment. Prior to the design of any information system, the use of IMIS as a tool to assist in solving organizational problems must be carefully assessed. All too often organizations are misguided by the fallacious assumption that a management information system is one tool to solve all of their problems. There is no cookbook formula for handling highly varied organizational problems. The therapeutic and maintenance needs of the organization must be identified in terms of informational needs and the management information system must provide feedback relevant to the needs and management style of the given CMHC.

Accuracy. All data collected in a management information system should be accurately input or it will be of little value. Accuracy is a key issue whether the system under design is manual or highly mechanized. Checks, reviews, and edits of input data, processing of data, and output data are necessary if the yield of a management information system is going to be usable.

Comprehensiveness. The ideal information system crosses all organization lines and provides complete information on all aspects of the various functional areas of an organization. Only this type of information system can be defined as integrated. Because it is often impractical at the outset to design a system that is totally integrated, the alternative is a piecemeal approach. At first, a portion of the information system may be designed and implemented--for example a statistical subsystem--and then the design of another subsystem can take place. Care should be taken in designing subsystems, however, so that all interactions with other subsystems are being considered.

Flexibility. A management information system should be designed with sufficient flexibility so changes can be made without disturbing routine operations. Flexibility is necessary so the changing problems of dynamic organizations and changing demands for reports can be addressed with adequate information.

Parsimony. Care should be taken in allocating resources to system design, implementation and maintenance. The effort and resources used should be as parsimonious as possible. If outside help is needed, proposals should be obtained from competent and reputable vendors. Borrowing or purchasing techniques or programs makes more sense than "re-inventing the wheel." Careful scrutiny of cost-benefit considerations should take a high priority in any system design effort. The most economic method of processing the information--manual, mechanized, inhouse, service bureau--should be identified and utilized.

Timeliness. A young man returning to the United States from Tijuana was asked by a customs officer at the border if he had brought anything back with him.

"I don't think so," replied the young man.

Whereupon the officer responded, "You'll know in 2 weeks."

Two weeks in all probability was too long a feedback time for the young man to take any corrective action. Timely informational feedback is of great importance to managers also. Receiving information on events that occured 2 months earlier is typically of little use in answering scorecard and attention-directing questions. A management information system should be designed to facilitate immediate feedback for routine operational control in a CMHC.

Distillation. Often excessive amounts of data are collected and reported to managers throughout the CMHC. In many cases reports containing extraneous data only serve to confuse the reader/user of a report. Reports should be presented so the information contained is easily digestible by the manager (graphs or percentage charts are often useful in this context). Initial information reported to the manager should be relevant to his needs and questions. If the manager desires additional information he should be able to acquire it through the information system. In addition to presenting actual results, distillation of data should be accomplished through exception reporting by reporting only unusual aspects of the operation or statistics falling outside given tolerance levels. Exception reporting neatly isolates problem areas where investigation and perhaps corrective action might be necessary.

Constant Vigilance. When the system design is completed and implemented, the work has only begun. To insure continuing quality in management information, constant monitoring is necessary. Care should be taken that all information input is accurate and timely. Reports should be carefully analyzed to determine their usefulness. The absence of monitoring can permit internal processing problems, which if not corrected, have a snowball effect and become difficult to correct.

Complaining People. Despite the sophistication of a system in providing relevant information needs of an organization, someone within the organization is going to complain about input preparation, report formats, timing, etc. Such thorns are almost impossible to avoid. These responses could be dealt with by selling the merits of the system, compromising, coercion, and sometimes by ignoring their existence.

Additional guides for CMHCs are provided by Elpers and Chapman (1973).

There are a number of special problems that are encountered by all who attempt to implement a management information system or any similar data collecting mechanism in a CMHC.

Confidentiality. A major bugaboo is confidentiality. Staff appropriately are quite concerned about what happens to patient data they submit, particularly data which identifies the patient as having sought treatment for mental illness. The mechanism of handling this problem has been to carefully explain the utilization of the data, its lack of availability to any other organization and requiring of affidavits of confidentiality for any person who has access to the data in any form. The Lanterman-Petris-Short Act in California carefully spells out the requirement for confidentiality of data and the penalties for violating such confidences is a major asset. The law clearly states that any data revealing a patient's identity cannot be available to any source.

MIS vs Research Data. *A major problem is drawing the line between obtaining management information data, data for the evaluation of the process of the system, and research data. In designing the management information system, the primary purpose was to obtain management information, and management reports are the primary feedback instrument. However, the development of a system that would allow careful evaluation of the process of delivering mental health services in Orange County appeared feasible. The instruments to accomplish this are the statistical reports and special reports. These are complex and require a great deal of analysis before they are useful, and therefore, are not routinely distributed to the unit staff members. However, the research and evaluation staff maintains an attitude that these reports are available to answer any questions that staff has which might be obtained from the statistical data.*

The management information system cannot be a primary research tool. Instead, it must be seen as a basic requirement to antedate any major research protocol. The management information system gives an excellent picture of the process within the system. This is an essential variable if outcome studies or other forms of clinical research are to be accomplished. When questions asked by staff were of such detail and so narrow in focus that they became a research project, they were excluded from the management information system. In the future comprehensive evaluation protocol will be developed. This protocol will draw heavily on the management information system but will go far beyond in the area of evaluation of patients at the beginning, during, and end of treatment and at various points for follow-up. Such a protocol should probably be done in a large system on a sampling basis and, while it must be keyed to the management information system, there seems to be no requirement that the same data be obtained on all patients.

On Becoming An Expert. *A CMHC manager need not be an expert in computer technology, systems analysis, etc., to institute an IMIS. Instead, only common sense, a pragmatic approach to problem-solving and good consultation are required. Learning to program computers or to become an expert in data processing, is not necessary. What is necessary is to remain a pragmatic program manager and obtain the required technical assistance.*

While the foregoing principles are important guides in developing and maintaining IMIS in any organization, they do not provide the specific approach to and content of IMIS for CMHC--the key focus of this monograph. Exhibit 1-3 outlined four concrete IMIS subsystems--

- Accounting
- Statistical
- Cost Finding/Rate Setting
- Budgeting

that are essential for CMHCs. Each subsystem is briefly described and documented with working examples drawn from operating CMHCs in chapters 3 through 6.

Elpers and Chapman, op. cit., 1973 (see chapter 1 references).

Simon, H.A.; Guetzkow, H.; Kozmetsky, G.; and Tyadall, G. Centralization vs. Decentralization in Organizing the Controller's Department. New York: Controllership Foundation, Inc., 1954 Quoted in: Horngren, Charles T., Cost Accounting--A Managerial Emphasis. 3rd Edition. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972 p. 8.

CHAPTER 3

THE BASIC ACCOUNTING SUBSYSTEM: AN OVERVIEW

Regardless of the differing sizes of a CMHC, the accounting systems will have great similarity. While the volumes of transactions and techniques for accumulating the data can vary substantially, the basic accounting information structure (revenue, expenses, assets, liabilities) varies only slightly. Salsbery (1971) identified the basic accounting records and reports appropriate for a CMHC.

ACCOUNTING RECORDS

The accounting records of a center consist of three types.

1. Original Documents

These documents include the checks, cash receipts, purchase invoices, payroll time records, or any other objective evidence supporting financial transactions.

2. Journals

The information from the original documents representing the center's individual financial transactions are summarized in records called journals. A separate journal is normally maintained for each different type of transaction and the individual transactions are entered in the journals in chronological order. One example of a journal would be a check register. Columns would be provided to record such information as the date, check number, payee, amount, and expense distribution.

The following journals would usually be used by a center

Check Register: to record cash disbursements

Cash Receipts Register: to record cash received

Accounts Receivable Journal: to record charges for services performed

Purchase Journal: to record purchases of supplies or services on credit

Payroll Journal: to record payrolls

3. General Ledger

While the journals are used to summarize by type of transaction the information found on the original documents, the ledger is used to summarize by account the information recorded in the journals. The transactions are summarized in the journals by type of transaction. The journal totals are then entered (posted) to accounts in the general ledger. In this ledger, a separate page is usually provided for each account (e.g., bank account, accounts receivable) to be charged or credited.

The ledger accounts provide a continuous summary of the financial transactions of a center from year to year. The financial statements are prepared from the information contained in the ledger.

ACCOUNTING REPORTS

Any number of financial statements or reports may be prepared for a center. There are two reports which should be prepared by every center.

1. Statement of Financial Condition (Balance Sheet)

This statement lists assets, liabilities, and fund balances of a center at a certain data and reflects the center's financial position as of that date.

2. Statement Income and Expense

This statement lists the revenues and expenses of a center for a stated period of time. It reflects the results of operations of the center.

This statement is of far more use when it is presented in a form which compares the current operations with the revenues and expenses of a comparable prior period. This report should also be prepared in a form which compares actual revenue and expenses with those provided for in the budget plan of the center.

A schematic overview of the general accounting subsystem for a CMHC is shown in figure 3-1 and the accounting records for a handposted system are illustrated in appendix 3-I.

ACCOUNTS (Salsbery 1971, pp. 16-17)

The accounts in the General Ledger may be divided into five groups.

1. Assets: the properties owned by a center

2. Liabilities: amounts owed by the center

3. Fund Balance: the unobligated portion of a center's assets

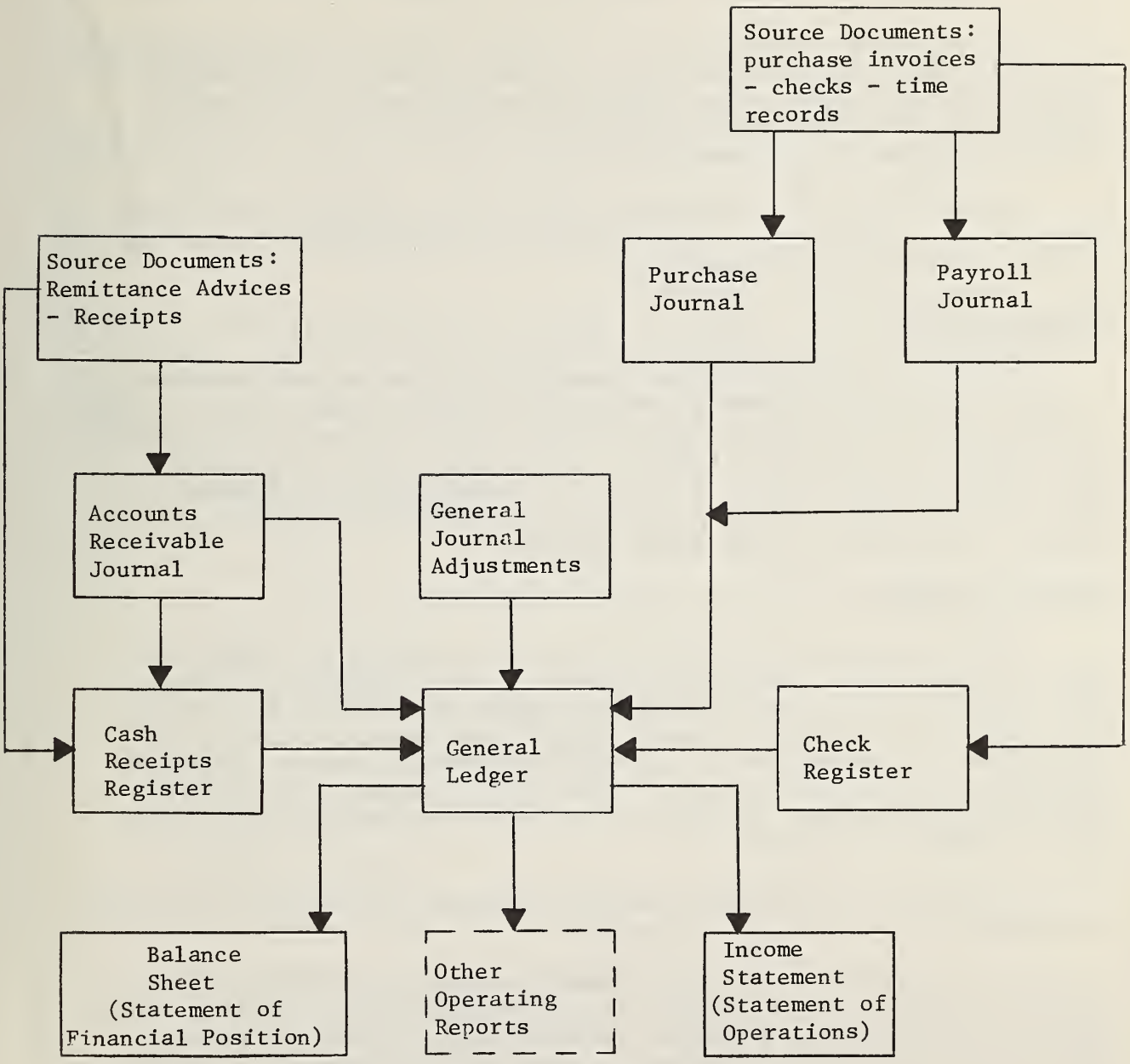

FIGURE 3-1
SCHEMATIC OVERVIEW OF A CMHC GENERAL ACCOUNTING SYSTEM

4. Revenue and Adjustments to Revenue: all revenue of the center

5. Expenses: expenses of operating the center.

The individual accounts found in a center's general ledger all fall into these five groups and should be uniformly located in the order listed above. The first three groups of accounts are referred to as "balance sheet" accounts since they are the accounts listed on the center's balance sheet (or Statement of Financial Position).

The other two groups of accounts reflect the operating revenue and expenses of a center which are presented in the Statement of Income and Expense (or Statement of Operations).

NUMBERING SYSTEM

In order to assure that each transaction will be recorded correctly in the journals and ultimately end up in the correct general ledger account, a numbering system has been developed and a number has been assigned to each account in the General Ledger. In this way as each transaction occurs, the original document can be coded so the transaction will be entered in the correct journal, posted to the correct general ledger account, and be properly reflected in the financial reports.

CHART OF ACCOUNTS

A chart of accounts is a listing of all of the account titles, with their numerical codes, which are employed in the compliation of financial data concerning the assets, liabilities, capital, revenues, and expenses of a center. The chart of accounts should be designed to result in the accumulation of information in classifications most useful to management for planning and control purposes. Since no two centers are organized in exactly the same way, it follows that no two centers will have exactly the same chart of accounts.

An outline of a recommended chart of accounts for centers is presented in appendix 3-II (Salsbery 1971, p. 18).

It is impossible to develop a chart of accounts that will fulfill all of the requirements of all centers. Many centers will not require much of the detailed information provided for in the chart; others may require even more detailed classifications. A wide range of accounts is provided here because it is easier for the individual center to omit those not needed than to add accounts that are needed but not described in the manual. The chart is designed to permit contraction or expansion to meet specific requirements while maintaining a basic uniformity for recording and reporting financial information.

A working chart of accounts for Ozark Community Mental Health Center (while not in the format suggested by Salsbery) is presented in exhibit 3-1 by Buryl C. Pitts (1973).

CODING SYSTEM (Salsbery 1971, pp. 18-19)

The numerical coding system in the chart of accounts appendix 3-II provides for the use of five digits. Account numbers include three digits to the left of a decimal point and two digits to the right. Use of one or more additional digits to the right of the decimal will allow for expansion if more detail is required. Each of the digits has a specific meaning as . . . (illustrated in appendix 3-II).

As an example, throughout the chart of accounts the first digit of an account number designates the financial statement classification of the account. The classification follows the sequence in which the information customarily is presented in the financial statements and general ledger. The first digit is customarily used to designate accounts as follows:

Balance Sheet Accounts

1 Assets

2 Equities (Liability and Capital or Fund Balance Accounts)

Revenue Accounts

3 Fee for Service Revenue

4 Non-fee for Service Revenue

5 Adjustments to Revenues

Expense Accounts

6 Mental Health Service Expenses

7 Unassigned: (for expansion)

8 General Services Expenses

9 Administrative Services Expenses

Additional digits are used to further subclassify the individual accounts as needed to provide the detail necessary for the preparation of financial statements and subsequent cost-finding.

SUMMARY

As daily financial transactions occur within a center, the original documents should be prepared and coded with the five digit number of the General Ledger account in which the transaction is to be eventually recorded. Throughout the month the information from the original documents should be entered in the appropriate journal. At the end of the month the journals should be totaled, balanced, and posted to the appropriate general ledger accounts.

The desired financial statements and other reports can then be prepared for review by the center director from the information of the general ledger.

At any time during the year the journals and ledgers will provide the financial information needed in conjunction with the statistical records for cost-finding purposes for preparation of any federal, state, or local reports or for management needs.

Feedback from the Accounting Subsystem. Clifford A. Nelson (1973) presents examples of the kind of feedback that a working accounting subsystem can provide.

An accounting subsystem serves two purposes: one is for the reporting of expenditures back to the sources of funds, and the second one is for managerial control, analysis, and projections at various levels of administration and supervision. The subsystem will reveal whether a projected budget was appropriate and reasonable and will also provide reports and trends on type of revenue and collections. Exhibits 3-2 to 3-4 represent examples of monthly computer printouts for three organization units at Hennepin County Mental Health Center (HCMHC). These reports show the current month expenditures, the year to date expenditures, the over or under relationship to the total budget, and the number of personnel hours. The county has implemented a unified accounting system (tied directly to the PPBS system discussed later in this monograph) and these reports flow back to operating departments.

Internally, the HCMHC receives a modified expenditure report on administrative and research and training costs (not shown). This non-PPBS category allows for pulling out costs which are not directly related to direct services. These costs can then be allocated back to all program units when necessary and are done so in the PPBS package. This provides a key allocation of common costs which is essential for costing out various programs.

EXHIBIT 3-1

Working Chart of Accounts
Ozark Community Mental Health Center

Balance Sheet Accounts:	
Daily Receipts	100
Cash in Bank	103
Petty Cash	104
Certificates of Deposit	105
Accounts Receivable	111
Accts. Rec. Delinquent	111.2
Due from M M H Authority	112
Due from State of Mo.	113
Due from NIMH	114
Prepaid Insurance	151
Accounts Payable	201
Note Payable	202
Business & Professional Credit	250
Donations - Bldg. Acct.	251
Credit Bureau Clearing Acct.	261
Reserve for Doubtful Accts.	262
Conference Expense Reserve	287
Mo. Mental Health Authority Reserve	288
Transfer of Funds - Bldg.	289
Appropriations for Encumbrances	290
Cumulative Operating Margin	291
Transfer of Funds - NIMH	299
Income Accounts:	
Charge Business	1
Barton County	1.1
Eastern Jasper County	1.2
McDonald County	1.3
Newton County	1.4
Cherokee County	1.5
Cash Business	2
Barton County	2.1
Eastern Jasper County	2.2
McDonald County	2.3
Newton County	2.4
Donations	3
Mo. Mental Health Authority	4.1
State Aid	4.2
Other Income	5
NIMH Recovery	6
Commissions (Sundry)	7
Expense Accounts:	
Psychiatrists	11
Psychologist	12
Occupational Therapist	13

Expense Accounts Con't:	
Nurses	13
Administration	14
Office	16
Orderly	17
Social Worker	18
Coordinator Community Ser.	19
Aides (Psychiatric)	20
Bldg. & Lawn Maintenance	21
Equipment Maintenance	22
Janitor & Bldg. Supplies	23
Laundry Service	24
Electricity, Gas & Water	25
Telephone	26
Equipment Lease	27
Remodeling & Improvement	28
Legal Fees	30
Office Supplies	31
Professional Insurance	32
Other Insurance	33
Payroll Taxes	34
Debt Service--Interest	35.1
Professional Services	35.2
Travel & Entertainment	37
Secretarial Service	38
Board Meeting Expense	39
Subscription & Dues	40
Equipment Purchase	41
Moving Expense	42
Bad Accounts	43.1
Bad Accounts Charity	43.2
Cash Short	44
Postage	45
Employee & Patient Welfare	47
Retirement Fund	48
Literature & Testing Material	49
OT Supplies	50
Library	51
Part-time Psychologist	52
Conference Expense	55
Staff Recruitment	56
Mo. Unemployment	57
Fed. Unemployment	58
Abnormal Expense	61
Barton County	62
Eastern Jasper County	63
McDonald County	64
Newton County	65
Bldg. & Equipment Repair	66

NIMH Fund General Ledger Accounts

Cash in Bank	103
Institute of Mental Health	105
Accounts Receivable	111
Due to St. John's Payroll	201
Due Operating from NIMH	202
Due to National Life Ins. Co.	203
Federal Withholding	221
FICA	222
State Withholding	223
Major Medical Standard of Amer.	224
Blue Cross/Blue Shield	225
Retirement Reserve	226
Prudential Insurance Co.	227
Missouri Unemployment	228
Federal Unemployment	229
Principal of Fund	251

Building Fund

Donations	3
Cash in Bank	101
Sundry Receivables	119
Land	141
Land Improvements	142
Building	143
Furniture & Equipment, Old	144
Furniture & Equipment, New	145
Furniture	146
Prepaid Insurance	151
Notes Payable	201
Accounts Payable	202
Operating Fund	289
Principal of Fund	291
Bank Services Charges	11

EXHIBIT 3-2

PERIOD ENDING 04-30-73 — HENNEPIN COUNTY — REPORT UAS0461
RUN DATE 05-11-73 — PAGE 661

ORGANIZATION EXPENDITURE REPORT

ORGANIZATION--3804 ADULT OUTPATIENT
REPORTS TO----3800 MENTAL HEALTH CENTER

CURRENT MONTH ACTUAL	CURRENT MONTH (OVER)UNDER	ORG ACCT	DESCRIPTION	YEAR TO DATE HOURS	YEAR TO DATE ACTUAL	YEAR TO DATE (OVER)UNDER	ENCUMBERED	ANNUAL BUDGET	REMAINING BUDGET
24,368	(2,533)	8002	SALARIES & WAGES-REGULAR	10,517	106,752	(8,491)		283,866	177,114
		8016	EMERGENCY		240	(240)			-240
30	(30)	8050	GROUP HEALTH		91	(91)			-91
29	(29)	8052	GROUP LIFE INSURANCE		113	(113)			-113
379	28	8054	BLUE CROSS/MII INSURANCE		1,517	315		5,293	3,776
1,078	356	8060	F.I.C.A.		5,860	595		18,650	12,790
674	(674)	8062	P.E.R.A.		2,938	(2,938)			-2,938
135	(135)	8070	SUPPLEMENTAL RETIREMENT		595	(595)			-595
	1,810	8080	OTHER PERSONAL SERVICES			8,146		23,533	23,533
26,693	(1,207)		PERSONAL SERVICES	10,517	118,106	(3,412)		331,342	213,236
15	10	8102	OFFICE SUPPLIES AND FORMS		44	56		300	256
128	(128)	8112	TRAINING AND LIBRARY		314	(314)			-314
143	(118)		COMMODITIES		358	(258)		300	-58
300	2,063	8212	CONSULTING		700	8,754		28,363	27,663
	1,861	8248	RENTAL-BUILDINGS			7,529		22,577	22,577
	186	8266	COMMUNICATION			747		2,241	2,241
300	4,130		SERVICES		700	17,026		53,181	52,481
	93	8420	CONFERENCES AND TUITION			373		1,120	1,120
		8470	PUBLICATIONS & PERIODICAL		10	(10)			-10
	93		OTHER CHARGES		10	363		1,120	1,110
233	(233)	8625	OFFICE FURNISH AND EQUIP		316	(316)			-316
233	(233)		CAPITAL OUTLAY		316	(316)			-316
27,369	2,665		TOTAL	10,517	119,490	13,403		385,943	266,453

EXHIBIT 3-3

PERIOD ENDING 04-30-73 — HENNEPIN COUNTY — REPORT UAS0481
RUN DATE 05-11-73 — PAGE 662

ORGANIZATION EXPENDITURE REPORT

ORGANIZATION--3805 DRUG CLINIC
REPORTS TO----3800 MENTAL HEALTH CENTER

CURRENT MONTH ACTUAL	CURRENT MONTH (OVER)UNDER	ORG ACCT	DESCRIPTION	YEAR TO DATE HOURS	YEAR TO DATE ACTUAL	YEAR TO DATE (OVER)UNDER	ENCUMBERED	ANNUAL BUDGET	REMAINING BUDGET
3,408	607	8002	SALARIES & WAGES-REGULAR	1,800	14,968	3,099		52,196	37,228
14	(14)	8020	SHIFT DIFFERENTIAL	162	47	(47)			-47
5	(5)	8052	GROUP LIFE INSURANCE		22	(22)			-22
92	7	8054	BLUE CROSS/MII INSURANCE		369	78		1,293	924
141	186	8060	F.I.C.A.		625	846		4,251	3,626
34	(34)	8062	P.E.R.A.		150	(150)			-150
118	(118)	8064	M.E.R.A.		516	(516)			-516
27	(27)	8070	SUPPLEMENTAL RETIREMENT		117	(117)			-117
	336	8080	OTHER PERSONAL SERVICES			1,512		4,368	4,368
3,839	938		PERSONAL SERVICES	1,962	16,814	4,683		62,108	45,294
10	10	8102	OFFICE SUPPLIES AND FORMS		234	(151)		250	16
25	(19)	8120	FOOD AND BEVERAGES		36	(11)		75	39
		8132	HOUSEKEEPING AND CLEANING		1	(1)			-1
	4	8134	KITCHEN AND DINING		21	(5)		50	29
5,191	642	8142	DRUGS AND MEDICINE		31,808	(8,475)		70,000	38,192
5,226	637		COMMODITIES		32,100	(8,643)		70,375	38,275
	130	8212	CONSULTING			523		1,571	1,571
	4	8229	MAINT & REPAIR-EQUIPMENT			16		50	50
	349	8248	RENTAL-BUILDINGS			1,397		4,192	4,192
	34	8266	COMMUNICATION			138		416	416
	517		SERVICES			2,074		6,229	6,229
	17	8420	CONFERENCES AND TUITION			69		208	208
		8495	MISCELLANEOUS		11	(11)			-11
	17		OTHER CHARGES		11	58		208	197
9,065	2,109		TOTAL	1,962	48,925	(1,828)		138,920	89,995

EXHIBIT 3-4

PERIOD ENDING 04-30-73 — HENNEPIN COUNTY — REPORT UASC481
RUN DATE 05-11-73 — PAGE 666

ORGANIZATION EXPENDITURE REPORT

ORGANIZATION--3809 CRISIS INTERVENTION
REPORTS TO----3800 MENTAL HEALTH CENTER

CURRENT MONTH ACTUAL	CURRENT MONTH (OVER)UNDER	ORG	ACCT	DESCRIPTION	YEAR TO DATE HOURS	YEAR TO DATE ACTUAL	YEAR TO DATE (OVER)UNDER	ENCUMBERED	ANNUAL BUDGET	REMAINING BUDGET
8,182	(8,182)		8002	SALARIES & WAGES-REGULAR	8,504	40,573	(40,573)			-40,573
4,452	(4,452)		8016	EMERGENCY		17,426	(17,426)			-17,426
161	(161)		8020	SHIFT DIFFERENTIAL	4,450	742	(742)			-742
			8022	SUNDAY DIFFERENTIAL	56	20	(20)			-20
27	(27)		8050	GROUP HEALTH		130	(130)			-130
27	(27)		8052	GROUP LIFE INSURANCE		104	(104)			-104
306	(306)		8054	BLUE CROSS/MII INSURANCE		1,217	(1,217)			-1,217
500	(500)		8060	F.I.C.A.		2,383	(2,383)			-2,383
384	(384)		8062	P.E.R.A.		1,833	(1,833)			-1,833
12	(12)		8070	SUPPLEMENTAL RETIREMENT		53	(53)			-53
14,061	(14,061)			PERSONAL SERVICES	13,010	64,481	(64,481)			-64,481
-1,351	1,351		8102	OFFICE SUPPLIES AND FORMS		620	(620)			-620
			8110	GENERAL SUPPLIES		101	(101)			-101
23	(23)		8112	TRAINING AND LIBRARY		34	(34)			-34
45	(45)		8120	FOOD AND BEVERAGES		61	(61)			-61
14	(14)		8134	KITCHEN AND DINING		32	(32)			-32
1	(1)		8140	SURGICAL AND MEDICINE		4	(4)			-4
44	(44)		8142	DRUGS AND MEDICINE		217	(217)			-217
			9170	BUILDING AND EQUIP MAINT		69	(69)			-69
-1,224	1,224			COMMODITIES		1,138	(1,138)			-1,138
			8233	MILEAGE AND INS ALLOWANCE		128	(128)			-128
				SERVICES		128	(128)			-128
12,837	(12,837)			TOTAL	13,010	65,747	(65,747)			-65,747

REFERENCES FOR CHAPTER 3

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APPENDIX 3-I

ACCOUNTING RECORDS FOR A HAND POSTED SYSTEM
by David L. Salsbery [1]

This chapter is devoted to a discussion of the different accounting records which a center using hand posted records should maintain. Although examples are given, the forms used are provided for illustrative purposes only and are by no means the only forms acceptable.

The accounting records are divided into three categories:

1. Original Documents
2. Journals
3. Ledgers

Original Documents

The procedures you establish for preparing, approving, and filing the documents supporting the financial transactions of the center will contribute greatly to the efficiency or inefficiency of your business office. In order to help identify these documents with their related journals, they are discussed in the sections which follow.

Journals

The journals are the accounting records where you originally record and summarize the individual transactions in chronological order. A separate journal is usually maintained for each different type of transaction. In this way the journals may be simpler, and the work may be distributed among the employees, thus providing greater efficiency and better control.

The financial transactions which a center will normally wish to record are:

1. Amounts due for services performed
2. Cash received
3. Purchase of services or supplies on credit
4. Cash disbursed
5. Payroll
6. Adjustments of accounts

1./Salsbery, op. cit., pp. 67-81.

The individual journals required to record these transactions are listed below.

Amounts Due for Services Performed

Whether a center adopts the cash or accrual basis method of accounting discussed in chapter 1, it is still necessary for a center to have records in which to enter and control the accounts receivable originating from fees charged for services performed. The accounts receivable records can be the same, therefore, regardless of the method of accounting used. Several types of records are normally involved in preparing and recording fees for services. The normal records and documents which a center would be expected to maintain are:

1. A file showing the patients' financial ability, who is responsible for the account, and a form showing the amount of the approved donated service discount to be allowed. The method of timing and obtaining the financial information regarding a patient is optional with the center. Often, good treatment procedures and good business procedures clash on this subject. It is imperative, if a patient is to receive a donated service discount which is to be recorded at the time the service is performed, that written approval be provided in the file to authorize the recording of the lower rate.

2. A charge slip prepared when a service is rendered showing the type of service and the amount of the charge. For best control, a charge slip should be written up for every service performed and a copy forwarded to the bookkeeper. The bookkeeper can then enter the charge in the journals from the charge slip.

3. A journal in which the information from each of the charge slips is entered in chronological order. The bookkeeper files the charge slips in support of these entries. He should also have an approved donated service discount document on file to support the amount of the discount to be recorded. All entries in the journal are therefore approved by someone other than the bookkeeper.

   This journal includes the date, charge slip number, patient's name, amount of the charge, the amount of the donated services discount, and the allocation of the revenue to the appropriate account. This is called an Accounts Receivable Journal.

4. An individual patient account card summarizing all of his charges and payments to date, along with the current balance of the account. The patient's account should also show the dates when the patient or a third party was billed and notations regarding any correspondence related to the account.

5. A control account showing the total of the balance of all of the individual patient account cards. This account would generally be a General Ledger account, if the center is on the accrual basis.

Cash Received

The Cash Receipts Journal contains a summary of the cash received during a month. The journal shows the date, receipt number, amount of the receipt, who paid it, and whose account is to be credited for the amount paid. Individual receipt slips should be written by the cashier or receptionist for the amount of any cash or checks received. A copy of these receipts should be sent to the bookkeeper from which he can make the entries in the receipts journal. The daily deposit in the bank account should equal the total of the day's receipts as recorded in the Cash Receipts Journal.

Some government reports which must be filed ask for an analysis of the revenue of the center by "who paid" rather than what service was performed. For this reason, a place should be provided in the cash receipts journal where you can analyze your receipts for this purpose.

Purchase of Services and Supplies on Credit

The Purchase Journal is used by a center operating on the accrual method of accounting (chapter 1--Salsbery). The centers using accrual methods of accounting record their purchases of services and supplies at the time of the purchase rather than at the time of the subsequent cash payment. The Purchase Journal is a summary of the purchase invoices showing the date, name of vendor, amount of the purchase, and the accounts to be charged. A column is usually provided to record the date of the subsequent payment. If a center wishes, it may have an individual accounts payable card for each vendor where all purchases from that vendor and subsequent payments on accounts are recorded.

It saves a great deal of time, however, if the unpaid purchase invoices are maintained in a separate file until paid, and in this way they can be used to support the liability recorded on the books and at the same time replace the individual cards. When they are paid, the invoices can be filed alphabetically by individual vendor and will provide a record of purchases from that source.

This journal may be eliminated and the center may still adequately maintain accrual basis accounting records. To do this a center should charge the purchases to the expense programs when they are paid and entered in the Check Register, bypassing the Purchase Journal. This in effect puts the center's purchases on the cash basis. Each time financial statements are to be prepared, the bookkeeper must summarize the amounts in the unpaid purchase invoice file and prepare a journal entry to convert the books to the accrual basis. After statements are prepared on the accrual basis, the journal entry is reversed.

Figure 5

ACCOUNTS RECEIVABLE JOURNAL

Discount	Accounts Receivable	Trans. No.	Date	Patient's Name	320 Outpatient Service	Provide a column for each revenue producing program		
2.00	6.00	732	16	John Jones	8.00			
-0-	8.00	733	17	Mary Smith	8.00			

When entering charges for services

Revenue is entered at the full established rate

The amount the patient will pay is recorded

The Donated Service discount is recorded

For Balancing Purposes

These two columns ---------- equal ---------- Total of all of these columns

For Posting Purposes

Account 510.00

Account 112.00 ---------- Post monthly column totals ------ Post these columns to revenue programs in the 300 series

Note this column is also posted to the individual patient's account

Figure 6 INDIVIDUAL ACCOUNTS RECEIVABLE CARD

JOHN JONES					
Trans. No.	Date	Description	Charges	Payments	Balance
732	16	Outpatient Service	6.00		6.00
		<u>For Balancing Purposes</u> The charges less the payments equal the balance The total of all individual Accounts Receivable Cards should equal the balance in General Ledger Account 112			
		<u>For Posting Purposes</u> Charges are entered here from the Accounts Receivable Journal Payments are entered here from the Cash Receipts Journal			

Figure 7

CASH RECEIPTS JOURNAL

(Right page of Journal)

Contract Discount	Cash Received Restr.	Cash Received Gen.	Receipt No.	Date	Received From	Accounts Rec'able	Acct.	Non-fee Revenue	Other Acct.	Other Amt.
					Sample Entries					
		8.00	302	6/1	Regular Pmt. on Acct. Mary Smith	8.00				
2.00		6.00	303	6/2	Rec. from Private Ins. ABC Ins.--F. Smith	8.00				
	3000.00				Rec. from the Govt. U.S. Govt. Grants		400	3000.00		
					For Balancing Purposes					
These three columns					equal				These three columns	
					For Posting Purposes					
520.00	120.00	110.00			Post Monthly	Acct.112.00			Account Indicated	
					Also post Accounts Receivable column to individual Patient's account					

ANALYSIS OF RECEIPTS

(Left page of Journal)

Other Acct.	Other Amount	U.S. Government Acct.	U.S. Government Amount	Medicaid Acct.	Medicaid Amount	Medicare Acct.	Medicare Amount	Private Ins. Acct.	Private Ins. Amount	Patients Acct.	Patients Amount
										320	10.00
										350	6.00
		400	3000.00								
					For Balancing Purposes						
					Columns on this page equal Cash Received Columns →						
					This page provides an analysis of receipts for reporting purposes only						

Cash Disbursements

Usually cash expenditures are restricted to amounts disbursed by check. The Cash Disbursements Journal then is a check register. A check register is a list of the checks written during a month listed in numerical sequence by check number and chronological order. The Check Register shows the date, check number, amount of the check, payee and account distribution.

The Check Register is an important source of information when the bookkeeper is reconciling the bank account at the end of the month. The checks which are returned with the monthly bank statements should be compared with those listed in the journal as a normal procedure in reconciling of the bank account. For audit purposes, it is essential that a file be maintained containing a purchase invoice or other document supporting each check written.

Payroll

The payroll records actually consist of three different records:

1. The Payroll Journal showing the computation of the employee's gross pay, the withholding taxes, the net pay and the check number. This journal provides a summary of the monthly payroll. When a separate payroll checking account is used, this journal provides a record of the checks drawn. Payroll taxes withhold are posted from this journal.

2. The payroll distribution journal (a part of the Payroll Journal) shows to which account the gross pay is chargeable. The payroll expense is posted to the ledger from this journal.

3. The individual payroll record showing a summary of the individual employee's payroll for the year. This record is used mostly as a summary of information needed to prepare quarterly payroll reports and the employee's W-2 form at the end of the year.

Ledgers

The standard type of General Ledger should be adopted by the center.

The balance sheet accounts should be assigned from the information in chapter 3. Set up only those accounts needed as more accounts can easily be added.

The Revenue and Expense accounts should be set up as necessary to record the revenue and expense of the service to be offered. "Spread sheet" accounts should be utilized where possible so all of the expense of operating one program can be recorded on the same page.

Figure 8 ACCOUNTS PAYABLE JOURNAL

(Left Page)

Date Paid	Check Number	Accounts Payable	Date	Name of Vendor	Invoice Number	Misc. Acct.	Misc. Amount
6/25	123	300.00	6/1	Northwest Supply Co.	7260		
		75.00	6/5	Office Supply	3205		

For Balancing Purposes

Accounts Payable column equals all other columns

For Posting Purposes

Post total of accounts payable column
Post individual accounts in other columns

(Right Page)

900		850		680		650		621		620	
Acct.	Amt.	Acct.	Amt.	Acct.	Amt.	Acct.	Amt.	Acct.	Amt.	Acct.	Amt.
				.30	125.00					.30	175.00
.52	75.00										

When Recording Purchases on Credit

Assign a column on this page for each program

Enter each invoice in Accounts Payable column and column representing the program charged with the expense

Use fourth and fifth digits of account number to identify expense charged to programs

Figure 9

CHECK REGISTER

(Left Page)

General Bank Balance	Deposits	Amount of Check	Date	Check Number	Payee	Accounts Payable	Other	
							Acct.	Amount
		50.00	6/5	122	Southern Phone Co.			
		300.00	6/25	123	N.W. Supply Co.	300.00		

For Balancing Purposes

Amount of check equals all other columns

For Posting Purposes

Memo Columns Only

Post monthly total of amount of check column to Cash in Bank

Post monthly total of Accounts Payable column

Post individual amounts in other columns

(Right Page)

900		850		680		650		621		620	
Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount
.50	50.00										

When Recording Payments

Assign a column on this page for each program

Enter each check in the amount of check column and one other appropriate column

Use fourth and fifth digits of account number to identify expenses charged to programs

Figure 10

PAYROLL JOURNAL

(Right Page)

Employee's Name	Gross Pay	Payroll Withholding				Amount of Check	Check No.	Date
		Federal Tax	F.I.C.A.	State Tax	Payroll Advance			
Frank Thomas 362-30-5036	900.00	100.00	48.00	52.00	100.00	600.00	375	6/1
Mary Frank 360-42-3097	300.00	50.00	15.00	10.00	25.00	200.00	376	6/1
For Balancing Purposes								
Gross pay equals the total of all other columns on this page.								
For Posting Purposes								
Totals posted-Probable Accounts	217.20	217.21	217.22	112.40	110.10			
←Gross pay is posted from Payroll Distribution Journal								

PAYROLL DISTRIBUTION JOURNAL

(Left Page)

900		850		680		650		621		620	
Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount	Acct.	Amount
.00	100.00			.00	50.00	.00	100.00	.00	350.00	.00	300.00
.07	300.00										
For Balancing Purposes											
The total of all columns on this page will equal Gross Pay on the payroll journal.											
For Posting Purposes											
Each column is assigned a three digit program number											
The fourth and fifth digit are placed next to each figure to identify the subclassification.											
Each employee's gross pay is distributed to the programs in which he works.											
Column totals are posted monthly to each program.											

Figure 11

INDIVIDUAL PAYROLL RECORD

Employee Name: Frank Thomas Soc. Sec. No. 362-30-5036

Address: 310 Fourth Street

Payroll Information

Gross Pay	Payroll Withholding				Amount of Check	Ck. No.	Date
	Federal Tax	F.I.C.A.	State Tax	Payroll Advance			
900.00	100.00	48.00	52.00	100.00	600.00	375	6/1

For Balancing Purposes

Gross pay equals the total of all other columns

For Posting Purposes

This record is not posted -- it is merely a summary of one employee's payroll record

All figures on this record are copied directly from the payroll record

This record provides quarterly payroll totals needed to prepare payroll reports

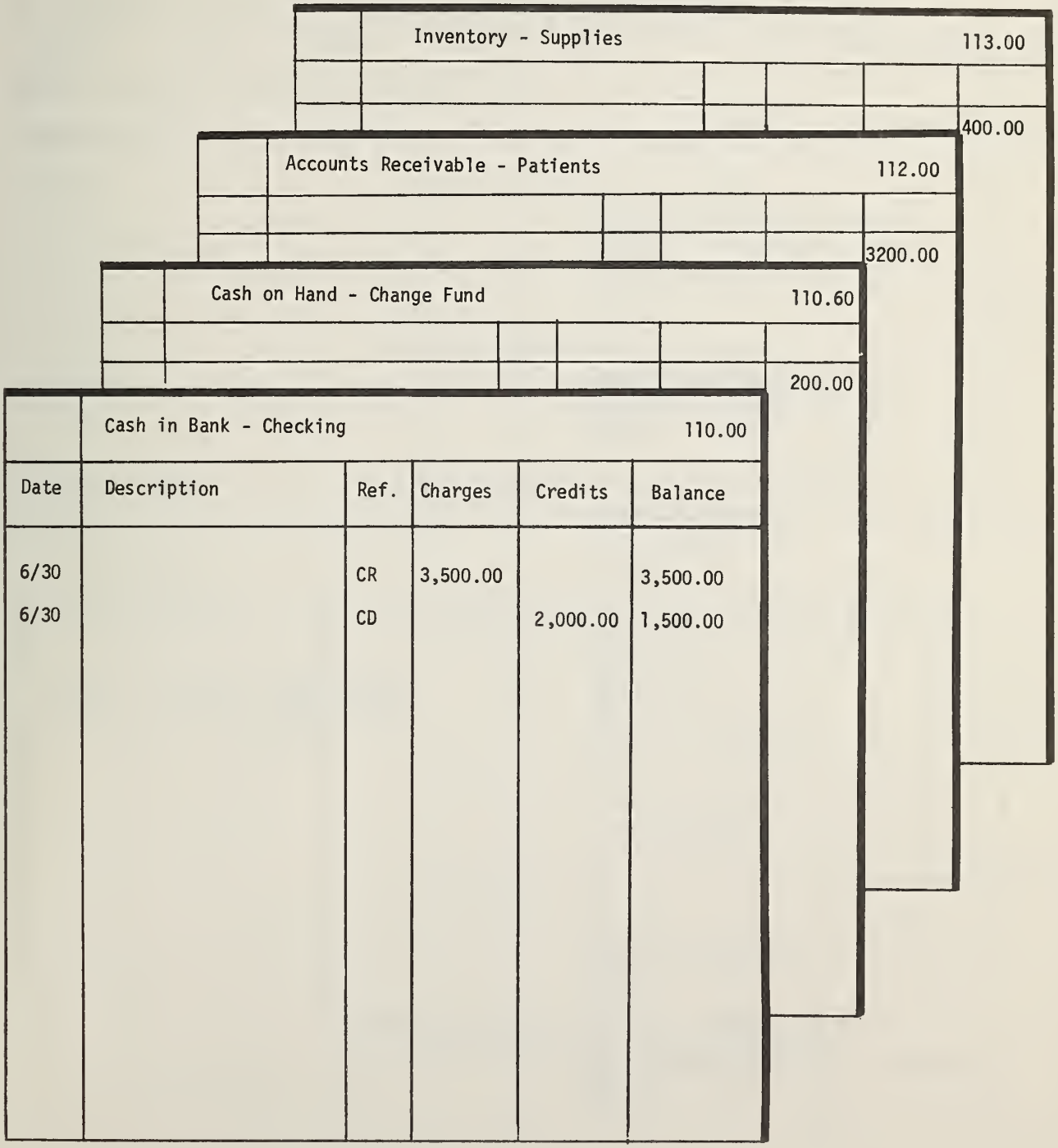
This record is totaled at the end of the year to provide totals for preparing employees' W-2 forms

It may prove to be beneficial to enter the budgeted amount of each expense at the head of each expense column in the ledger so the expenses to date can be compared with the amount budgeted by reviewing the expense section of the ledger.

The ledger should be posted and balanced monthly. If the ledger is properly set up, financial statements can be easily prepared directly from its pages without any additional work.

Figure 12 SAMPLE GENERAL LEDGER PAGES

for use in Recording Balance Sheet Accounts



Inventory - Supplies 113.00

400.00

Accounts Receivable - Patients 112.00

3200.00

Cash on Hand - Change Fund 110.60

200.00

Cash in Bank - Checking 110.00

Date	Description	Ref.	Charges	Credits	Balance
6/30		CR	3,500.00		3,500.00
6/30		CD		2,000.00	1,500.00

Figure 13

SAMPLE GENERAL LEDGER PAGES
for use in Recording Program Expenses

(Right Page)

Outpatient Service Program Salaries					620.00
Date	Description	Ref.	Charges	Credits	Balance
6/1	(Sample Posting from Payroll Journal)	P.R.	300.00		300.00
	Set up one ledger page for each expense category in a program				

(Left Page)

		.08	.07	.06	.05	.04	.03	.02	.01	.00
							Social Worker	Registered Nurse	Psychologist	Psychiatrist
		Assign one column to record each subclassification of the expense category								

APPENDIX 3-II

CHART OF ACCOUNTS
by David L. Salsbery[1/]

In this chapter a summary of the chart of accounts for a mental health center, as discussed in chapters 3 through 5, is presented.

BALANCE SHEET ACCOUNTS--OPERATING FUND

ASSET ACCOUNTS--Operating Fund

110 Cash	110.00-110.49	Cash in Bank General Checking Account Payroll Checking Account Payroll Tax Account Other
	110.50-110-99	Cash on Hand Petty Cash Funds Cashier's Change Fund Other
111 Investments	110.00-111.99	Temporary Investments Savings Accounts Time Deposits Other
112 Receivables	112.00-112.19	Accounts and Notes Receivable Patients Medicare Medicaid Private Insurance Other
	112.20-112.29	Allowance for Uncollectable Receivables
	112.30-112.39	Recoveries of Accounts Written Off
	112.40-112.49	Accounts Receivable--Staff Travel Advances Other
	112.50-112.59	Accrued Receivables Accrued Interest on Investments Others

1./Salsbery op. cit., pp. 56-66.

	112.90-112.99	Due from Other Funds (for Fund Accounting only) Restricted Fund Endowment Fund Plant Fund Construction Fund
113 Inventories	113.00-113.99	Supplies Inventories (by Storeroom Location)
114 Prepaid Expenses	114.00-114.99	Expenses Paid in Advance Insurance Rent Utility Deposits Other

LIABILITY ACCOUNTS--OPERATING FUND

217 Current Liabilities	217.00-217.09	Accounts Payable
	217.10-217.19	Salaries and Wages Payable
	217.20-217.29	Payroll Taxes and Deductions Payable Federal Income Tax Withheld State Income Tax Withheld Social Security Taxes Withheld and Accrued Other Payroll Withholding
	217.30-217.39	Notes and Loans Payable Notes Payable--Vendors Notes Payable--Bank Other
	217.40-217.49	Accrued Expenses Payable Interest Other
	217.50-217.59	Deferred Income Advances on Grants Fees for Services Paid in Advance
	217.60-217.69	Credit Balances in Patients' Accounts
	217.70-217.89	Other Current Liabilities
	217.90-217.99	Due to Other Funds (for Fund Accounting only)

CAPITAL ACCOUNT--OPERATING FUND

219	Operating Fund Balance	219.00-219.99	Fund Balance

BALANCE SHEET ACCOUNTS--RESTRICTED FUND (Optional)

120	Cash	120.00-120.49	Cash in Bank
		120.50-120.99	Cash in Hand
121	Investments	121.00-121.99	Investments of Restricted Funds
122	Receivables	122.00-122.99	Restricted Fund Receivables
117	Current Liabilities	227.00-227.99	(Same as Operating Fund)
229	Fund Balance	229.00-229.99	Restricted Fund Balance

BALANCE SHEET ACCOUNTS--ENDOWMENT FUND (Optional)

130	Cash	130.00-130.49	Cash in Bank
		130.49-130.99	Cash on Hand
131	Investments	131.00-131.99	Investment of Endowment Funds
132	Receivables	132.00-132.99	Endowment Fund Receivables
237	Fund Balance	237.00-237.99	(Same as Operating Fund)
239	Fund Balance	239.00-239.99	Endowment Fund Balance

BALANCE SHEET ACCOUNTS--PLANT FUND (Optional)

140	Cash	140.00-140.49	Cash in Bank
		140.50-140.99	Cash on Hand
141	Investments	141.00-141.99	Invested Plant Funds
142	Receivables	142.00-142.99	Receivables of Plant Funds
145	Land, Buildings and Equipment	145.00-145.29	Land and Land Improvements
		145.30-145.49	Buildings
		145.50-145.99	Equipment
146	Accumulated Depreciation	146.00-146.99	
247	Current Liabilities	247.00-247.99	

248	Long-term Liabilities	248.00-248.99	Mortgages
249	Plant Fund Balance	249.00-249.99	Fund Balance

BALANCE SHEET ACCOUNTS--CONSTRUCTION FUND (Optional)

150	Cash	150.00-150.49	Cash in Bank
		150.50-150.99	Cash on Hand
151	Investments	151.00-151.99	
152	Receivables	152.00-152.99	
155	Plant Assets Under Construction	155.00-155.99	Separate Construction Projects
257	Current Liabilities	257.00-257.99	
258	Long-term Liabilities		
259	Construction Fund Capital		

REVENUE ACCOUNTS

Fee for Service Revenue

Alternative A: assumes an organizational structure exactly along lines of NIMH-identified Elements of Service

300-319	Inpatient
320-339	Outpatient
340-349	Partial Hospitalization
350-359	Emergency
360-364	Consultation and Education
370-374	Rehabilitation
375-379	Pre Care and After Care
380-384	Training
385-389	Research and Evaluation
390-399	Other
.00-.99	Available under each account above

Alternative B: assumes organizational structure exactly along the following lines:

300- Inpatient*
320- Outpatient
360- Consultation and Education
390- Children
391- Alcohol

*(Note: Partial hospitalization and emergency activities occur in the Inpatient Unit and therefore the following subsidiary accounts would exist:

300-01 24-hour Inpatient
300-02 Emergency
300-03 Partial hospitalization)

Non-Fee for Service Revenue

400-409 Federal Staffing Grants
410-419 Other Federal Funds
420-429 State Funds
430-439 County Funds
440-449 Local Funds
450-459 Donations and Fund Raising
460-499 Other Revenue
.00-.99 Available under each account above

Adjustments to Revenue

510-519 Donated Service Discounts
520-529 Contractual Adjustments
Medicare
Compensation Insurance
State
County
Commercial Insurance
Other
530-539 Administrative Adjustments
540-549 Allowance for Bad Debts
550-599 Other Adjustments to Revenue
.00-.99 Available under each account above

EXPENSE ACCOUNTS

Mental Health Service Programs

Alternative A: assumes organizational structure exactly along lines of NIMH-identified Elements of Service

600-619	Inpatient Service
620-639	Outpatient Service
640-649	Partial Hospitalization
650-659	Emergency Service
660-664	Consultation and Education
665-669	Diagnostic Service
670-674	Rehabilitation
675-679	Pre Care and After Care
680-684	Training
685-689	Research and Evaluation
690-699	Other

Alternative B: assumes organization structure exactly along the following lines:

600-	Inpatient*
620-	Outpatient
660-	Consultation and Education
690-	Children
691-	Alcohol

*(Note: Partial hospitalization and emergency activities occur in the Inpatient Unit and therefore expenses of this Unit would be allocated by such methods as may be appropriate to the following subsidiary accounts:

600-01	24-hour Inpatient
600-02	Emergency
600-03	Partial hospitalization)

General Service Programs

800-829	Dietary
830-849	Building Maintenance and Expense
850-859	Housekeeping
860-869	Laundry
870-899	Other

Administrative Programs

900-999	As needed

CATEGORIES OF EXPENSE--UNDER EXPENSE PROGRAMS

The fourth digit in each expense category should be:

.00-.09	Salaries and Wages
.10-.19	Employee Benefits
.20-.29	Professional Fees
.30-.39	Operating Supplies
.40-.49	Operating Expenses
.50-.59	Office Expenses
.60-.69	Travel and Transportation
.70-.79	Other Expenses
.80-.89	Building Expenses
.90-.99	Capital Outlay

SUBCLASSIFICATIONS OF EXPENSE--UNDER EXPENSE CATEGORIES

The fifth digit in each expense category should be:

Salaries and Wages	.00	Psychiatrist
	.01	Psychologist
	.02	Registered Nurse
	.03	Social Worker
	.04-.09	Other as needed
Employee Benefits	.10	Social Security (Employer's Share)
	.11	Group Life Insurance
	.12	Group Health Insurance
	.13	Retirement Plan Contributions
	.14	Workmen's Compensation
	.15	State Unemployment Compensation Insurance
	.16-.19	Other as needed
Professional Fees	.20-.29	As needed
Operating Supplies	.30-.39	As needed
Operating Expenses	.40	Publications and Subscriptions
	.41	Printing
	.42	Dues, Fees, Licenses
	.43	Equipment Repairs
	.44	Professional Meetings
	.45	Conventions, Seminars, Workshops
	.46-.49	Other as needed
Office Expense	.50	Telephone
	.51	Postage
	.52	Office Supplies
	.53	Office Machine Repair
	.54-.59	Other as needed

Travel and Transportation	.60	Auto Alowance
	.61	Personal Car Mileage--In State
	.62	Personal Car Mileage--Out of State
	.63	Public Transportation
	.64	Motels and Hotels
	.65	Meals
	.66-.69	Other as needed
Other Expenses		Subclassifications Optional)
	.70	Work Study Program
	.71	Testing
	.72	Day Camps
	.73	Special Claims
	.74-.79	Other as needed
Building Expenses	.80	Repairs and Maintenance
	.81	Lights
	.82	Heat
	.83	Water
	.84	Rent
	.85-.89	Other as needed
Capital Outlay	.90-.99	As needed

CHAPTER 4

STATISTICAL SUBSYSTEMS

The statistical subsystem of a CMHC encompasses all non-financial statistical data collected and used in daily operations and both large and small community mental health centers. Large data bases present more complex tasks in data collection and compilation than do the small ones but the general types of information compiled will typically be the same. The discussion of statistical subsystems is segmented into a description of four different levels of complexity ranging from a manual approach for a small urban center to computer based approaches covering large sections of states. While none of these systems can be transplanted without modifications, each provides a working example of how statistics could be gathered using varying approaches to capture similar data. Billy R. Winters (1973) reviews the managerial philosophy of and specific approach to a manually operated statistical subsystem.

Integrated Systems for Management. *Webster identifies "integrated" as a word which means "to make up or complete as a whole, as parts do; also to bring together (parts) into a whole...entire; complete; also composite." I like my own definition better when dealing with data: If I can get my hands on it, compile, and assimilate it into some usable managerial tool, it is integrated. The primary function of those involved in management is to make decisions that determine the future course of action for the organization over the short and the long term. Too often managers are trapped in the endless rut of producing data to prove that what has passed is really past. Data collection is futile and has no use if it is used solely to justify the already expired staff or funding resources. Management decisions may be directed toward every conceivable physical and organizational area; they may deal with budgetary planning, program design, personnel assignment, and the operating or service delivery phase of business.*

Management decisions require the development of some sort of recorded information/data bank. More often than not these records begin in a small way at the operating levels within an organization. Usually data collection is initiated only at a point when the particular part of the operation has grown large enough that the manager can no longer remember all those bits and pieces of information necessary to accomplish his day to day tasks. The development of such data records generally occurs along organizational lines and as the total organization grows, with each component growing merrily along, the data needs become larger and more necessary. Somewhere in the process there is a sudden realization that the data, which are generated along organizational lines, have taken on a certain aspect of independence and have begun to cut across

functional lines. The data are no longer restricted just to one manager. The impact is now outside the originating department. Somehow it should be systematized and controlled -- or at least kept from running rampant throughout the entire organization.

Goals Before Systems. Basic to any data system is the plan of action (or goals) of the organization. Many times managers are guilty of simply following and perpetuating a badly designed or poorly implemented data system because it is there. Any system can and should be reviewed at any time to determine its applicability to the goals of the organization. After an indepth review of the goals of the Jefferson County Center, they were assigned a priority, specified with measurable objectives, and became the impetus for operationalizing the data system. The data system (excluding accounting) is primarily designed to be responsive to program concerns. The basic concerns were:

- Utilizing staff time in the most efficient manner
- Serving the needs of those desiring mental health services
- Responding to the changes in needs
- Relating to the expressed requirements of governmental agencies with some degree of accuracy

Lack of good operational data may be justified by blaming the Federal or state reporting needs for using all their resources and thereby not giving the manager data he feels he needs. This is deplorable since the facilities primary data needs come first. Averages, good estimates, interpolations as well as published secondary data can suffice in most cases for outside reports where multiple demands would cause inferior management data to be used in the operation.

Costs and Accuracy. Any data system requirements should be planned as though all components of that system could produce optimum results regardless of the method required to operate such a system. Most probably would agree that automated systems best fit the "optimum results" criteria simply because of the sophistication of planning required to make such a system workable. Manual systems should be as simple as possible and should try to be as accurate as possible within resource constraints. The modifications to operate manually should be in the processing of input data and the extent to which one can vary the compilation and display of the manually handled data.

Jefferson County Example. The current parts of the manual system used in the Jefferson County CMHC are the accounting portion and the staff/client activity portion. For purposes of this analysis the traditional and fairly smooth-running accounting system is not discussed. The staff/client activity portion, however, is quite another problem because of the constant movement of client, programs, and staff resources. One goal makes this area even more difficult -- a goal to reduce length of treatment -- because this means more client turnover and consequently more unique data requirements.

The basic forms used in this system are:

- Staff weekly schedule
- Referral and Intake
- History card and direct treatment plan
- Client Billing Ledger
- Colorado Division of Mental Health (CDMH) Treatment Summary Form
- Client Followup Survey

There are others that may be used periodically but these comprise the main source of primary data. The center uses a significant amount of secondary data as well. The secondary data includes:

- The Census Report for the area
- Consumer Price Index
- Relevant Denver Regional Council of Governments publications
- Newspapers and other periodicals

The Staff Weekly Schedule. Exhibit 4-1 is prepared by the staff member on Friday prior to the Monday of the week's schedule. A "no carbon required" copy is given to the responsible secretary for references. The staff member retains the original copy and during the week of schedule, he verifies or corrects the schedule as it actually occurred. Exhibit 4-2 shows the coding used by staff. This coding is used on specific reporting formats and simplifies the communication of activities of the secretary, and records and billing clerks. Data collection tasks are carefully separated so that no single secretary or clerk is responsible for all items. A particular secretary or clerk only has tabulation responsibility for their specific task. As a result of this assignment a team secretary will tabulate such data as Staff annual leave and sick leave used; number of emergency contacts and hours spent by the staff; number of interventions, etc. The team secretary will provide these tabulations to the supervisor of the group, forward a copy to the administrative offices, and forward the actual schedule to the administrative offices. The administrative secretaries then route the schedule to assigned tasks such as posting for billing; insurance followup; tabulation of indirect service hours, etc. The tabulations made by the team secretary are entered in their respective ledger or client charts as received. After the new tabulations are entered, all are combined in a Center report form which is sent to the Center Director as well as to the team supervisor.

Referral and Intake Document. Exhibit 4-3 is initiated by the client's first contact, generally by telephone. The first one-third of the questionnaire is completed at first contact. The client then completes the history and application portion of his first face-to-face contact before he sees any treatment staff. The second page is completed by the treatment staff during intake interview. The team secretary and team treatment staff

EXHIBIT 4-1

WEEKLY SCHEDULE

Name _____

Week of _____ 19 ____

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 A.M.					
PLACE					
Patient(s)					
Event(s)					
# People					
9:00 A.M.					
PLACE					
Patient(s)					
Event(s)					
# People					
10:00 A.M.					
PLACE					
Patient(s)					
Event(s)					
# People					
11:00 A.M.					
PLACE					
Patient(s)					
Event(s)					
# People					
3:00 P.M.					
PLACE					
Patient(s)					
Event(s)					
# People					

CODING TO BE USED ON WEEKLY SCHEDULE

Along with the patient's name show the following abbreviations for the various categories of treatment: (This could be a combination of two codes, i.e., Home Visit Evaluation = H.V.E.)

Evaluation = E (see note * on next page)
Treatment = Tx.
Followup = F (this term used only when a case has been closed and they are seen and the case is not reopened)
Home Visit = H.V.
Hospital Visit = Hp. V.
Testing = Test.
EMG Machine = EMG

Emergency Evaluation = Emerg E
Emergency Treatment = Emerg Tx.
Emergency Phone Contact = Emerg ph.

PLEASE BLOCK OFF TIME INVOLVED FOR EACH SESSION: Draw a line across on the hour, half-hour or quarter-hour--whichever applies

Admission to Ft. Logan = Adm. Ft. L.
Scheduled appointments cancelled = Canc.

We need to know the number of Identified Patients and Collateral Patients seen during a treatment session. Indicate by 1 + 1 (meaning 1 Identified plus 1 Collateral seen) or 2 + 3 = 2 Identified = 3 Collateral. If only one person is seen indicate 1 + 0 if it is the identified patient and if it is a collateral indicate by 0 + 1.

We automatically charge a fee for any name listed on the weekly schedule unless therapist marks N.C. (No charge). Exceptions: If patient has been in previously during that week we don't charge for the second visit, therefore you don't need to mark N.C.--it applies only to initial visit that you don't want patient to be charged for. Most admissions to Ft. Logan are N.C. and jail evaluations, but please mark N.C.

Any annual leave, sick leave or educational leave should be coded and the therapist indicates the number of hours (secretaries are not to fill this in for the therapist).

Annual Leave = A.L.
Sick Leave = S.L.
Educational Leave = Ed. L.

COMMUNITY SERVICES (Any questions refer to Manual for reporting client services)

REPORT ALL OF THIS SERVICE IN TIME SPENT:

II-1 = Information & Education for General Public (Lectures, talks or workshops conducted for groups of interested persons including legislators, volunteer groups or unidentified mass media audience)

II-2 = In-Service Training for Own Facility Staff and Trainees (New techniques, evolving theory, application of research findings, etc.)

II-3 CONSULTATION AND CONFERENCES WITH OTHER AGENCIES:

A. Schools
B. Clergy
C. Law enforcement agencies

II-3
- D. Mental Health Agencies
- E. Social Welfare Agencies
- F. Physicians
- G. Others
- H. Public Health Nurses

II-4 Participation in Community Planning and Consultation. (Include here all hours of planning and coordination services with other agencies in the community. Do not report hours which have been reported in Item II-3 above.

II-5 Research and Evaluation. Report here time devoted to the production of scientific knowledge relevant to program effectiveness.

*Evaluation Only = E. Only (this category used on jail evaluations, nursing home evaluations or school evaluations where the intended patient will not follow through or does not wish treatment.) A case does not have to be opened.

REFERRAL AND APPLICATION
JEFFERSON COUNTY MENTAL HEALTH CENTER, INC.

EXHIBIT 4-3

EMERGENCY___ Prev. Pt. Yes__ No__ Pt. Legal Name_____
Date__/__/___ Referral No._____ First Middle Last

_____ Home Phone_____/_____
Street Number Street Name Husband Wife

_____ Office Phone_____/_____
City Zip County Husband Wife

_____ Significant Others_____
Age Date of Birth Sex Marital Status and Spouse's Name Insurance Yes___ No___
Name & Number _____

Education ____ Usual Occupation _____ Gross Family Income _____

_____ Total Number of Dependents on this income _____
Mother and Father (If minor)

School_____ May we contact Yes____ No____

REFERRAL SOURCE: School__Self__PHN__Court__Hosp__Welfare__Doctor__Ft. Logan__ Other_____

Informant's Name_____Phone_____Time taken for This Contact_____Takey By_____

PREVIOUS PSYCHIATRIC EVALUATION and/or TREATMENT By Whom Address Date

Interviewing/Play Observation..... _____
Psychological Testing..... _____
Neurological Exam (Include EEG, Etc.)..... _____
Psychotherapy..... _____
Medication..... _____
Psychiatric Hospitalization..... _____

MEDICATION INFORMATION (List those conditions that have been diagnosed and/or treated)

(1)_____ (2) _____ (3) _____
(4)_____ (5) _____ (6) _____

FAMILY DOCTOR _____ ADDRESS_____

CONSENT TO TREAT: I consent to such evaluation and treatment as the professional staff of the JEFFERSON COUNTY MENTAL HEALTH CENTER may decide. I authorize the exchange of medical, psychiatric and social information between JEFFERSON COUNTY MENTAL HEALTH CENTER and my referring doctor and/or health, local, state or federal agency in instances where this may be proper in my case, unless a specific request to the contrary is on record at the JEFFERSON COUNTY MENTAL HEALTH CENTER, INC.

_____ _____ _____ _____
SIGNATURE (Parents or Guardian for Minors) Date Therapist Case Number

INFORMATION REQUESTED

___Schools _____
___Hospital_____
___Welfare _____
___Ft. Logan_____
___PHN _____

___Physician_____
___State Hosp._____
___Court _____
___Other_____
___ EEG_____

JCMHC/REV: 9-20-71

INTAKE SUMMARY
JEFFERSON COUNTY MENTAL HEALTH CENTER, INC.

Problem/Comments (Phone contact): Patient Name_____

FACE TO FACE CONTACT: Therapist_____Date_____Identified Pts_____Non-Pts_____

(1) PRESENTING PROBLEM:

(2) PAST HISTORY RELATED TO PROBLEM:

(3) MENTAL STATUS AND IMPRESSION:

(4) RECOMMENDATION AND DISPOSITION:

DIAGNOSTIC CODE:_____
TREATMENT MODALITY:_____

are responsible for completion of this form and, here again, the data tasks are divided according to the who, when, and why of needing to know. Some data needs tabulating immediately for day-to-day operations, and some can wait thirty days. Some is important to the team while other is general to the entire Center operation.

History Card and Treatment Forms. Immediately following completion of the intake process, exhibit 4-4 is prepared in duplicate and a case chart is begun. One copy of the history card is kept at the treatment office along with the case chart and the other copy is sent to the administration office. This card is basically designed as a status locator reference and as a means to avoid consulting the chart. Rolodex files are used for these history cards and move the card based on status, i.e., open-active, closed-followup, or closed. A re-admit simply changes the status address of the history card. Also at the completion of intake the Colorado Department of Mental Health (CDMH) Treatment Summary Form, exhibit 4-5, is initiated and filed in the case chart. Exhibit 4-6 is the Direct Treatment Plan.

Client Billing Ledger. Exhibit 4-7 is a major part of the data system. The client's current activity is most evident from this ledger. The Staff Weekly Schedule is the source of entries for the billing ledger. Each treatment session is entered for that client and entry includes:

- Date of the appointment
- Type or modality of treatment
- Number of client(s) and/or helper(s) involved
- Therapist (staff) providing the treatment
- Charge for services rendered

Clients are assessed a charge based on their ability to pay and are billed monthly. This ledger then becomes a focal point for type of resource expenditure, amount of time spent, record of client and third party payments, and also the control of termination of treatment within the thirty day contact guideline specified by the Division of Mental Health.

When a case closes, the history card is placed in the proper status, the case chart is filed appropriately, the CDMH form (exhibit 4-5) is completed and mailed, a ledger entry is made and a followup survey form (exhibit 4-8) is prepared. The followup survey is an attempt to get at the question of satisfaction with the service and the appropriateness of the service. Once this knowledge becomes part of the system determinations relative to benefit and quality are possible since costs from the accounting side of the system are known. Reports are compiled from the data banks as necessary.

EXHIBIT 4-4

Case #_____

Opened_____
Mo. Yr.

Closed_____

Therapist

_____

ATP:_____

Follow Up_____

_____

_____

_____

Name_____
Last First M.I.

Dob:_____ Sex_____

Address_____

_____
City State Zip

Home Phone_____

Business Phone_____

Spouse:_____

Parents:_____

Use other side for notes

EXHIBIT 4-5

TREATMENT SUMMARY FORM

To the client: The answers to the questions below will be kept confidential. They will be used for evaluative and research purposes only. By answering these questions, you will help us to improve future services.

1 2 1. Clinic number

3 4 5 6 7 8 9 10 11 2. Client number

MO. DAY YR. 3. Date of admission (See Manual) 41-46

MO. DAY YR. 4. Date of termination (See Manual) 47-52

15 5. Sex: (2) Female (1) Male

17 18 6. Age at last birthdate: _____

19 20 7. a. Address _____

(CODE IN COUNTY OF RESIDENCE)

21 22 23 24 25 b. Code in Zip Code

26 27 28 29 30 31 8. What was the total combined yearly income earned by all of the people who lived in client household? (Include public assistance income)

32 9. Education of client (Mark the most correct category in the box to the left of this number)

(0) No formal education
(1) Some elementary school
(2) Graduated from elementary school or junior high school
(3) One or two years high school
(4) Graduated from high school
(5) Attended or graduated from trade school or business college
(6) One to three years of college
(7) Graduated from college
(8) Did some post-graduate work
(9) Completed post-graduate or professional school

33 10. Current marital status (Mark the most correct category in the box to the left of this number)

(1) Single (never married)
(2) Married: living together (Include common law)
(3) Divorced
(4) Married: separated (Not necessarily legally)
(5) Widowed

34 11. What is your usual occupation? (See Manual) _____

35 12. Client is being referred for problems in: (Code only one category)

(1) Academic or work achievement
(2) Peer relationships
(3) Authority or legal problems
(4) Family
(5) Sexual difficulties
(6) Drug abuse
(7) Suspected mental retardation
(A) Alcoholism
(B) Financial difficulties
(8) Other psychiatric problem
(9) Other (i.e.; not appropriately described above)

36 37 38 39 13. Diagnosis of client (See Manual) _____

40 14. Condition at termination:

(0) Evaluated only
(1) Much worse
(2) Moderately worse
(3) Slightly worse
(4) Slight benefit
(5) Moderate benefit
(6) Marked benefit

15. _____

NAME OF REPORTER

DMH 3 Rev. 5-24-71

DIRECT TREATMENT PLAN

CLIENT NAME: _____

IF UNDER 12, PARENT'S NAMES: _____

ADDRESS: _____ TELEPHONE: _____

CASE NUMBER: _____ PERMISSION FOR TELEPHONE FOLLOW-UP: YES ____ NO ____

PRIMARY THERAPIST: _____ CO-THERAPIST: _____

PRESENTING PROBLEM: _____

_____

_____

BEHAVIORAL GOAL(S): DATE SET: _____

PRIMARY GOAL: _____

_____

_____

OTHER GOALS: _____

_____

_____

_____

AT TERMINATION OF TREATMENT WAS THE
PRIMARY BEHAVIORAL GOAL REACHED: YES ____ NO ____

PROBLEM CATEGORY:
(Check One)

__ 01 Productivity Problems
__ 02 School Problems
__ 03 Family Problems
__ 04 Other Social Relationships
__ 05 Emotional Distress
__ 06 Thinking Disturbance/Disorder
__ 07 Alcohol Abuse
__ 08 Drug Abuse

PRIMARY APPROACHES USED:
(Check No More Than Two)

__ 01 Psychoanalytic
__ 02 Humanistic/Client Centered
__ 03 Behavior Modification
__ 04 Transactional Analysis
__ 05 Gestalt
__ 06 Chemo-therapy
__ 07 "Brokerage" (Facilitating referral to another agency)
__ 08 Other _____

TO BE FILLED IN BY TEAM SECRETARY

DATE TREATMENT INITIATED: _____
AVERAGE LENGTH OF TREATMENT:
AMOUNT OF TIME IN TREATMENT:
NUMBER OF TREATMENT CONTACTS:

DATE TREATMENT TERMINATED: _____
SESSION _____ MINUTES
_____ HOURS
_____

EXHIBIT 4-7

STATEMENT

JEFFERSON COUNTY
MENTAL HEALTH CENTER, INC.
260 SOUTH KIPLING STREET
LAKEWOOD, COLORADO 80226

DATE	TREATMENT – THERAPIST	CHARGE	Payments DEE	Payments ATP	BALANCE

PLEASE PAY LAST AMOUNT IN THIS COLUMN ◆

EXHIBIT 4-8

FOLLOW-UP QUESTIONNAIRE

1. The services that I received at the Mental Health Center were

   _____ satisfactory _____ unsatisfactory.

   If "unsatisfactory," please explain:

2. I ___ would ___ would not return to the Mental Health Center if I felt a need for further service.

   If "would not," please explain:

3. I feel that the problem that I sought the services of the Mental Health Center about is:

   ____much better ____better ____same ____worse ____much worse

4. I attribute this change to treatment at the Mental Health Center

   ____entirely ____partially ____not at all.

5. While you were in treatment at the Mental Health Center your therapist set a major treatment goal which read: (Refer to Primary Goal on Reverse.)

   At termination of treatment I felt that this goal

   ____was reached ____was not reached.

   If "not reached," please explain.

   (NOTE: If answer to #5 was "not reached," answer to #6 must be "is not in effect today."

6. That change is ____ still in effect today ____ is not in effect today.

   If "not in effect today," please explain.

   COMMENTS:

   Interviewer:_____
   Date:_____

Conclusion. *The choice of manual versus automated data was imposed because of lack of funds for computerized system. Only the payroll has been transferred to computer; most of the format design for manual data is with an eye to "some day" when automation is possible. A manual data system will work, but choose the components and arrange the process carefully. Finally, don't adopt anyone else's system per se -- no matter how good it sounds or how desperate you may be. Plan your own goals and spend the time necessary to devise measurements to assess progress toward those goals.*

The statistical information captured through a manual system as just described can also be mechanized in various ways. The following discussion describes a computerized approach used to retrieve statistical data from various CMHCs in Illinois. Because Harry M. VanHoudnos (1972) posits high commonality exists in the statistical data needs for various mental health centers, he presents a "package statistical information system" which can be adapted to most CMHC situations. He asserts that all statistical information in any CMHC center revolves around three basic components:

- Twenty-four hour care
- Partial hospitalization
- Events (i.e., therapy, consultation and education)

The following description focuses on how staff are related to each of these three major components and how the system creates reports.

Need for Staff Involvement. *Because the mental health professional is the primary source of raw data and guarantor of its quality, he was the key to the data collection puzzle and was involved in the systems design. Since the output was developed especially for those responsible for data input, and since the output helped the professional solve problems, professional resistance was dissipated and the quality of information was improved. Administrators were also provided monthly operational information which was previously unobtainable.*

Pyramidal Needs. *This approach to the problem of gathering management data is based on the theory that the information requirements of the Region are pyramidal. Providers of service have greater information needs than subregion administrators, executive directors, superintendents and the Region Administrator. By gathering sufficient appropriate data for individual staff who are involved in the daily service routine, the information requirements of upper echelon personnel are automatically fulfilled. Information relied upon and used by those responsible for its accumulation can also be relied upon by other supervisory staffs for evaluation of ongoing programs within the organization, and information adequate to evaluate the efficiency of performance can also provide answers to questions of accountability for fund expenditures and budget proposals required by those who control operating funds.*

Staff Activity System. A client information form (or face sheet), is normally used by organizations involved in treatment programs (form not shown); the data collected on these forms is as varied as there are organizations using them. The Staff Activity System (SAS) is adaptable to any client information form or can exist alone. The system reports the actual operations of system users. Staff perform work in broad areas according to a planned program and, within each program perform activities, see clients and collaterals and work with community organizations. In addition to collecting WHO does WHAT to WHOM so one can determine WHY and with WHAT RESULTS, the dimension of time is added. Time spent is a determining factor in calculating manpower requirements relevant to service delivery. Staff requirements cannot be ascertained from statistical data about clients and the community. Statistical data about clients and the community can portray when combined with staff activities and time a delivery-of-service mosaic about a specific client, group of clients, program or component of community operations.

The illustrated SAS sheet (exhibit 4-9) was designed to capture information about activities of the professional staff of the Decatur Mental Health Center. It has six lines which can be used singly or in multiples to record events which occur with or on behalf of a particular client, different clients or non-client events. The SAS sheet is prepared by the professional staff.

Processing. After the SAS sheets have been coded by the professional they are returned to an editor, who reviews them for coding infractions and writing legibility. The sheets are batched and forwarded to the computer processing center along with the opening and closing forms on a weekly basis, and are keypunched onto IBM cards for processing; the SAS sheets are then destroyed.

EXPLANATION OF THE SAS

Agency Reporting Number (0028). All agencies served by the Region 3B Management Information Section are assigned a four-digit reporting number for identification.

Date, Client Name and I.D. Number. For each scheduled client, office staff initiate anSAS sheet by recording the date, client name and I.D. Number on the form. After the client interview, the professional completes the recording and returns the form to the office. Professional staff also keep a few of the forms at their desk for non-scheduled events and field work.

In addition to registered client work, staff are involved in three other work areas; these have been assigned a code number: (91) is used in lieu of a client I.D. Number to record activities directed towards

EXHIBIT 4-9

DECATUR MENTAL HEALTH CENTER 0028

DATE __ - __ - __
MONTH DAY YEAR

CLIENT I.D. OR WORK AREA NO.	GEO. AREA	PRO-GRAM	ACTIVITY	NO. OF PEOPLE SEEN: CLNT	FAM	OTHER	COMM. GRP/AGY	TIME: HR	MIN	STAFF IDENTIFICATION: NO.	NO.	NO.	NO.	NO.	NOA	FEE	LINE

PROBLEM AREA: A - ALCOHOLISM C - CHILDREN O - DRUG ABUSE G - GERIATRIC R - RETARDED X- ALL OTHERS

WORK AREA: 91 NON-REGISTERED CLIENT CONSULTATION 99 COMMUNITY EFFORT 97 INTERNAL FUNCTIONS

GEOGRAPHIC AREA: 20 DEWITT 55 MACON TA TOTAL AREA 99 NON-CATCHMENT AREA

PROGRAM - 2 DIGITS

BX DIRECT SERVICE
- 06 REHABILITATION
- 16 DAY/NIGHT
- 18 SUSTAINING CARE
- 21 OUTPATIENT
- 22 INPATIENT
- 24 DIAGNOSTIC
- 25 EMERGENCY

30 COMMUNITY PROGRAM IMPROVEMENT

50 COMMUNITY RESOURCE DEVELOPMENT

80 TRAINING/EDUCATION

90 EVALUATION AND SUPPORT

ACTIVITY - 2 DIGITS

01 CLIENT/CASEWORK
- 02 APPOINTMENT CANCELLED/MISSED
- 14 CRISIS INTERVENTION
- 17 THERAPY - GROUP
- 18 " - INDIVIDUAL
- 33 EXAMINATION - PSYCHOLOGICAL
- 34 " - PSYCHIATRIC
- 46 INTERVIEW - SCREENING
- 47 " - DIAGNOSTIC
- 48 " - MEDICATION

49 ORGANIZATIONAL MAINTENANCE

61 TRAVEL

87 INFORMATION EXCHANGE

COMMUNITY GROUPS/AGENCIES - 3 DIGITS

001 COMMUNITY SERVICE ORGANIZATIONS
- 002 REHABILITATION/EMPLOYMENT
- 009 COUNCIL OF ALCOHOLISM
- 014 HALFWAY HOUSE
- 021 DIV. OF VOC. REHABILITATION
- 032 SHELTERED WORKSHOP

040 FINANCIAL SERVICES

050 LEGAL SERVICES

060 HEALTH SERVICES
- 061 GENERAL HOSPITAL

090 PSYCHIATRIC SERVICES
- 100 GEN. HOSP. INPT. PSYCH. UNIT
- 130 SUICIDE PREVENTION CENTER

140 SOCIAL SERVICES
- 142 CHILDREN/FAMILY SERVICES
- 143 CATHOLIC CHARITIES/SERVICES
- 146 SALVATION ARMY
- 171 TEL-E-CARE

200 CITIZEN ORGANIZATIONS
- 202 VOLUNTEERS
- 204 ASSOCIATION FOR MR
- 230 CLERGY
- 240 BUSINESS/PROFESSIONAL GROUP
- 244 TRADE UNIONS

300 EDUCATIONAL ORGANIZATIONS
- 301 SCHOOL SERVICES MR-ED
- 315 SPECIAL EDUCATION

340 SPECIAL OPPORTUNITIES
- 347 SELF START
- 348 HEAD START PROGRAMS

300 EDUCATIONAL ORGANIZATIONS (CONT.)
- 360 SCHOOLS

400 RESIDENTIAL CARE FACILITIES
- 426 NURSING HOME
- 500 SHELTER CARE HOME

650 CHILDREN RESIDENTIAL CARE

700 INTER-GROUP COORDINATION/PLANNING
- 702 COUNCIL OF COMMUNITY SERVICES
- 724 COUNCIL OF CHURCHES
- 740 MENTAL HEALTH ADVISORY COMMITTEE

750 RECREATION ORGANIZATIONS

800 LAW ENFORCEMENT ORGANIZATIONS
- 801 STATES ATTORNEY
- 803 POLICE
- 805 COURT
- 806 JAIL/CORRECTIONAL INSTITUTION

820 GOVERNMENT ORGANIZATIONS
- 821 CITY/COUNTY OFFICIALS
- 835 STATE/FEDERAL OFFICIALS

GENERAL
- 851 COMM. PT. WITHOUT RESP. PARTY
- 870 CONSULTANT

900 DEPARTMENT OF MENTAL HEALTH
- 910 DMH STATE HOSPITAL

960 HERMAN ADLER CENTER

975 ADOLF MEYER CENTER

consultation with or on behalf of non-registered clients who are the responsibility of another community group/agency; (99) is used for staff activities directed towards community effort and (97) is used when staff activity is directed towards internal center or administrative functions. An alpha character (X) prefixes the 91, 99, or 97 recording unless the event pertains to Alcoholism, Children, Drug Abuse, Geriatrics or Retardation, in which cases A, C, D, G or R is used.

Geographic Area. Office staff enter the code pertaining to the client's area of residence on the SAS form at the same time the date is entered. Many types of geographic areas can be used: counties, census tracts, planning areas, etc.

Program. The professional staff record the two-digit program code applicable to the situation involved. The prescribed programs of the U. S. Department of Health, Education, and Welfare have been incorporated into the operating structure of the Decatur Mental Health Center. The five basic programs are:

01 - DIRECT SERVICE: Service to or on behalf of a client(s);

30 - COMMUNITY PROGRAM IMPROVEMENT: Effort directed towards the improvement of existing community programs;

50 - COMMUNITY RESOURCE DEVELOPMENT: Effort directed towards the development of non-existing community resources and/or programs;

80 - TRAINING/EDUCATION: Planned development of awareness, knowledge or expertise in individuals, organizations or yourself; and,

90 - EVALUATION AND SUPPORT: Exploration and assessment of community or organizational needs and/or programs.

The system permits flexibility in recording information about the program with which the client is involved and documents movement from one program to another. It also captures non-registered client program activities.

Activity. The professional staff inserts the applicable two-digit activity code for the recording. The four basic activities are:

01 - CLIENT CASEWORK: Treatment-centered effort;

49 - ORGANIZATIONAL MAINTENANCE: Functions required to support your organization.

61 - TRAVEL: Transportation of yourself or others; and,

87 - INFORMATION EXCHANGE: Knowledge or skill exchange.

The activities printed on the SAS form encompass all staff activities which might take place. Each falls within one or more of the programs listed. The activity list can be expanded or reduced to meet organizational needs.

People Seen (Client-Family-Other). The professional enters the number of clients, family and others (non-Center staff) present during the recorded activity; the squares are left blank if no one is present.

Community Group/Agency. If the professional works with a community group/agency, he enters the applicable organization code. The organizations worked with regularly are printed on the SAS form for easy reference. If the professional contacts an organization not listed on the SAS form, he may generalize the recording by using the Major Heading Code (001, 200, 300, etc.), or the name of the organization can be written in and coded by office staff at a later time.

Time Spent. The professional enters the estimated hours and minutes elapsed during the activity. The system is not designed to justify total staff hours, but to document time spent in meaningful activities. Staff and administrators establish their own recording criteria.

Staff Identification. The staff involved in the activity records his personal two-digit I.D. Number, which indicates his name and professional title. When two or more staff are involved in an activity, only the one responsible for the involvement makes the recording. This assures identical recordings for all involved in the activity, indicates which activity involved more than one staff, eliminates duplication of entries and reduces the number of forms each staff member is required to prepare.

SYSTEM REPORTS

Most agencies who use the system answer to a Board of Directors plus multiple funding sources. Management and staff needs, as well as Board and funding source interests, determines the type, volume and frequency of reports. The system is currently programmed to produce more than 50 reports which are described and illustrated in a catalog. Each user selects reports for monthly, quarterly, semi-annual and annual use. Eight reports with fictitious data are shown.

Exhibit 4-10 deals with case volume and activity during the reporting period. It starts with the number of open cases at the beginning of the period, adds the number of cases opened, substracts the number of cases closed and ends with the number of cases on hand at period end. An open case is not necessarily an active case, so the number and percent of different cases which received service during the report period, as well as the number of different cases served for the fiscal year, are shown. Substantial Federal reimbursement is available under Title IVa

DECATUR MENTAL HEALTH CENTER (0028)

SUMMARY OF CASE ACTIVITY

FOR PERIOD OF 06/01/73 THRU 06/30/73

	TOTALS	DEWITT	MACON	OTHER
CASES OPEN BEGINNING MONTH (1)	692	36	651	5
OPENED DURING MONTH	72	3	67	2
AVAILABLE FOR WORK	764	39	718	7
CLOSED DURING MONTH	73	3	70	-
CASES OPEN AT END OF MONTH	691*	36*	648*	7*
NUMBER SERVED THIS MONTH	463	18	443	2
PERCENT SERVED THIS MONTH	60.6	46.2	61.7	28.6
NUMBER OF UNDUPLICATED CASES SERVED THIS FISCAL YEAR	1,213*	42*	1,146*	25*

(1) GEO. AREA TRANSFERS MAY CAUSE A VARIANCE FROM PREVIOUS REPORT

SOCIAL SERVICES ELIGIBILITY

NUMBER OF ELIGIBLE CLIENTS

AABD.	293	4
AFDC.	166	20
INELIGIBLE.	232	12
TOTALS.....	691*	36*

PERCENTAGE OF ELIGIBLE CLIENTS

AABD.	42.4	11.1
AFDC.	24.0	55.6
INELIGIBLE.	33.6	33.3
TOTALS.....	100.0*	100.0*

REPORT NO. 1

THE STATE OF ILLINOIS IS DIVIDED INTO GEOGRAPHICAL AREAS CALLED COUNTIES. TOWNSHIPS, PLANNING AREAS, TRACTS, ETC., CAN BE USED IN LIEU OF COUNTIES WHERE APPLICABLE. THIS CENTER SERVES A TWO-COUNTY CATCHMENT AREA.

and XVI of the Social Security Act to agencies operating eligible programs. Client social service eligibility statistics at the page bottom are for monitoring purposes.

File drawers of open and closed cases are difficult to handle when statistical information about clients is requested by the many groups to which a public agency must answer. Exhibit 4-11 is an example of a series of client statistical data reports which are available for each item collected via the client face sheet and closing form. Information about cases opened during the report period is on the left and information relative to the total caseload, broken down by geographic area, is on the right.

Exhibit 4-12 shows the four areas to which the center's services were directed, and exhibit 4-13 reorganizes the same services into program effort.

Exhibit 4-14 is a cross-presentation of the center's service effort. The information is shown in total on the left of the report and according to problematic target populations on the right; i.e., 463 individual clients were served, 42 of which were Geriatric, 46 Alcoholic, etc. Of the 463 clients, some were seen once, some twice, some three times, etc. This duplicated number, combined with the number of clients seen while performing community agency consultation, totals 1,291. Four hundred fifty-seven duplicate family members and 878 community people were also seen. The balance of the report deals with staff effort with community agencies and the clients. All center effort is then totalled, averaged and costed. The report is available for each program, geographic area and by program within geographic area.

Staff contribute as individuals and should be rewarded individually. Exhibit 4-15 documents the effort of an individual staff member and many use this report for self-evaluation. Information about their assigned cases appears on page 2; the bottom section doubles as a case closing form.

Each client entering the center for treatment is unique. Exhibit 4-16 shows client information, what the center did with, or on behalf of, the client, and the reason for discharge. It is prepared upon discharge, reviewed by responsible staff, and then placed on the client's file. The report is useful if the client is transferred to another human service agency or returns to the center after discharge. This is a confidential agency-only report.

Exhibit 4-17 presents staff efforts by program and is primarily used for costing purposes. At the top are agency and proportionate percentages of effort; the same information is presented by individual staff in the body, and total agency hours by program are at the bottom.

DECATUR MENTAL HEALTH CENTER (0028)

CURRENT CASELOAD--AGE

FOR PERIOD OF 06/01/73 THRU 06/30/73

	OPENINGS THIS PERIOD	EXISTING CASELOAD TOTALS DEWITT	MACON	OTHER	TOTAL	PERCENT
MALE						
UNDER 18	16	3	108	2	113	16.4
18 THROUGH 24	2	3	37	-	40	5.8
25 THROUGH 34	8	4	47	1	52	7.5
35 THROUGH 44	4	4	37	-	41	6.0
45 THROUGH 54	2	-	25	-	25	3.6
55 THROUGH 64	-	1	14	-	15	2.1
65 THROUGH 74	-	-	23	-	23	3.3
75 AND OVER	-	-	1	-	1	.1
TOTALS	32*	15*	292*	3*	310*	44.8*
FEMALE						
UNDER 18	5	4	77	1	82	11.9
18 THROUGH 24	13	4	64	1	69	9.9
25 THROUGH 34	7	7	85	-	92	13.4
35 THROUGH 44	5	4	50	1	55	7.9
45 THROUGH 54	3	1	34	1	36	5.3
55 THROUGH 64	3	-	28	-	28	4.1
65 THROUGH 74	3	-	14	-	14	2.0
75 AND OVER	1	1	4	-	5	.7
TOTALS	40*	21*	356*	4*	381*	55.2*
TOTAL PERSONS						
UNDER 18	21	7	185	3	195	28.3
18 THROUGH 24	15	7	101	1	109	15.7
25 THROUGH 34	15	11	132	1	144	20.9
35 THROUGH 44	9	8	87	1	96	13.8
45 THROUGH 54	5	1	59	1	61	8.9
55 THROUGH 64	3	1	42	-	43	6.3
65 THROUGH 74	3	-	37	-	37	5.3
75 AND OVER	1	1	5	-	6	.8
TOTALS	72*	36*	648*	7*	691*	100.0*

CURRENT CASELOAD--MARITAL STATUS

SINGLE	34	12	304	3	319	46.2
MARRIED	23	20	237	.4	261	37.8
WIDOWED	2	1	22	-	23	3.4
DIVORCED	6	-	40	-	40	5.7
SEPARATED	7	3	44	-	47	6.8
COMMON-LAW	-	-	-	-	-	.0
UNKNOWN	-	-	1	-	1	.1
TOTALS	72*	36*	648*	7*	691*	100.0*

REPORT NO. 2

THIS REPORT PROVIDES CURRENT MONTH AND EXISTING CASELOAD INFORMATION WITH PERCENTAGES. REPORTS HAVE BEEN DEVELOPED FOR ALL DATA ITEMS COLLECTED VIA CENTER 'CASE OPENING FORM'.

---NOTE---

THIS STYLE REPORT IS ALSO USED FOR THOSE DATA ITEMS COLLECTED VIA THE CENTER 'CASE CLOSING FORM'. THE DATA PRESENTED IS RELATIVE TO CURRENT MONTH AND FISCAL YEAR-TO-DATE CLOSING TOTALS.

DECATUR MENTAL HEALTH CENTER (0028)

SERVICE HOUR EFFORT BY WORK AREA

FOR PERIOD OF 06/01/73 THRU 06/30/73

CURRENT MONTH TOTAL	3,818.3 HOURS =	100.0 PERCENT	
YEAR-TO-DATE TOTAL	21,188.8 HOURS =	100.0 PERCENT	
PREV FISCAL YR TOTAL	15,318.8 HOURS =	100.0 PERCENT	
REGISTERED CLIENT WORK			
CURRENT MONTH	1,285.1 HOURS =	33.6 PERCENT	******************
YEAR-TO-DATE	8,982.9 HOURS =	42.3 PERCENT	**********************
PREV FISCAL YR	8,784.4 HOURS =	57.3 PERCENT	********************************
91-NON-REGISTERED CLIENT CONSULTATION			
CURRENT MONTH	1,096.0 HOURS =	28.8 PERCENT	**************
YEAR-TO-DATE	5,132.1 HOURS =	24.4 PERCENT	************
PREV FISCAL YR	1,944.2 HOURS =	12.9 PERCENT	******
99-COMMUNITY EFFORT			
CURRENT MONTH	626.8 HOURS =	16.4 PERCENT	********
YEAR-TO-DATE	3,349.9 HOURS =	15.8 PERCENT	********
PREV FISCAL YR	1,989.9 HOURS =	12.9 PERCENT	******
97-INTERNAL FUNCTIONS			
CURRENT MONTH	810.4 HOURS =	21.2 PERCENT	**********
YEAR-TO-DATE	3,723.9 HOURS =	17.5 PERCENT	*********
PREV FISCAL YR	2,600.3 HOURS =	16.9 PERCENT	********

0 20 40 60 80 100

REPORT NO. 3

THE CENTER REPORTED 3,818.3 HOURS OF TIME THIS MONTH, AND HAS REPORTED 21,188.8 HOURS FOR THE FISCAL YEAR. THIS COMPARES TO 15,318.8 HOURS REPORTED LAST FISCAL YEAR DURING THE SAME TIME PERIOD.

STATISTICAL INFORMATION IS PRESENTED WHENEVER POSSIBLE WITH GRAPHS.

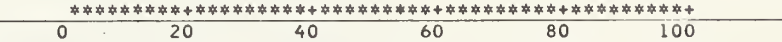
EXHIBIT 4-12

DECATUR MENTAL HEALTH CENTER (0028)

SERVICE HOUR EFFORT BY PROGRAM

FOR PERIOD OF 06/01/73 THRU 06/30/73

CURRENT MONTH TOTAL	3,818.3 HOURS	= 100.0 PERCENT		
YEAR TO DATE TOTAL	21,188.8 HOURS	= 100.0 PERCENT		
PREV FISCAL YR TOTAL	15,318.8 HOURS	= 100.0 PERCENT		
06 REHABILITATION				
CURRENT MONTH	199.3 HOURS	= 5.2 PERCENT	***	
YEAR TO DATE	1,053.8 HOURS	= 4.9 PERCENT	**	
PREV FISCAL YR	105.0 HOURS	= 0.6 PERCENT		
16 DAY/NIGHT				
CURRENT MONTH	389.7 HOURS	= 10.2 PERCENT	*****	
YEAR TO DATE	2,668.4 HOURS	= 12.5 PERCENT	******	
PREV FISCAL YR	1,251.7 HOURS	= 8.1 PERCENT	****	
18 SUSTAINING CARE				
CURRENT MONTH	1,099.4 HOURS	= 28.7 PERCENT	**********	
YEAR TO DATE	4,169.4 HOURS	= 19.6 PERCENT	**********	
PREV FISCAL YR	2,463.5 HOURS	= 16.0 PERCENT	********	
21 OUTPATIENT				
CURRENT MONTH	1,092.9 HOURS	= 28.6 PERCENT	**********	
YEAR TO DATE	7,348.9 HOURS	= 34.6 PERCENT	**********	
PREV FISCAL YR	8,400.1 HOURS	= 54.8 PERCENT	**********	
22 INPATIENT				
CURRENT MONTH	149.8 HOURS	= 3.9 PERCENT	**	
YEAR TO DATE	658.5 HOURS	= 3.1 PERCENT	**	
PREV FISCAL YR	387.1 HOURS	= 2.5 PERCENT	*	
24 DIAGNOSTIC				
CURRENT MONTH	11.3 HOURS	= 0.2 PERCENT		
YEAR TO DATE	138.6 HOURS	= 0.6 PERCENT		
PREV FISCAL YR	80.3 HOURS	= 0.5 PERCENT		
25 CRISIS/EMERGENCY				
CURRENT MONTH	41.0 HOURS	= 1.0 PERCENT	*	
YEAR TO DATE	205.3 HOURS	= 0.9 PERCENT		
PREV FISCAL YR	151.2 HOURS	= 0.9 PERCENT		
30 COMM PROG IMPR.				
CURRENT MONTH	328.0 HOURS	= 8.5 PERCENT	****	
YEAR TO DATE	1,902.7 HOURS	= 8.9 PERCENT	****	
PREV FISCAL YR	1,019.8 HOURS	= 6.6 PERCENT	***	
80 TRAINING/EDUC'N				
CURRENT MONTH	237.7 HOURS	= 6.2 PERCENT	***	
YEAR TO DATE	1,119.8 HOURS	= 5.2 PERCENT	***	
PREV FISCAL YR	282.1 HOURS	= 1.8 PERCENT	*	



REPORT NO. 4

THIS REPORT PRESENTS THE CENTER'S EFFORT BY 'PROGRAM'. CURRENT MONTH AND FISCAL YEAR-TO-DATE INFORMATION IS COMPARED WITH THE HOURS REPORTED LAST FISCAL YEAR DURING THE SAME PERIOD.

A DETAILED APPENDIX (OPTIONAL) OF ACTIVITIES WITHIN EACH PROGRAM SUPPORTS THIS GRAPH.

ORGANIZATION EFFORT BY WORK AREA AND PROBLEM AREA

FOR PERIOD OF 06/01/73 THRU 06/30/73

----WORK AREA TOTALS----	TOTALS	.GERIATRIC	ALCOHOLIC	RETAROED	DRUG-ABUSE	CHIL/ADOL	MI/ED.
NO. OF CLIENTS SERVED THIS PERIOD (UNDUPLICATED)	463*	42*	46*	22*	29*	38*	286*
NO. OF CLIENTS SEEN THIS PERIOD (DUPLICATED)	1,291	142	148	72	87	49	793
NO. OF FAMILY MEMBERS SEEN THIS PERIOD (DUPLICATED)	457	10	36	20	55	132	204
NO. OF COMM. PEOPLE SEEN THIS PERIOD (DUPLICATED)	878	112	80	36	130	65	455
----------TOTAL PERSONS SEEN THIS PERIOD----------	2,626*	264*	264*	128*	272*	246*	1,452*
HOURS SPENT WITH COMM GROUPS/AGENCIES THIS PERIOD							
COMMUNITY SERVICE ORGANIZATIONS	537.7	70.1	59.6	25.6	49.3	29.6	303.5
CITIZENS ORGANIZATIONS	242.4	26.5	26.4	31.0	22.8	11.6	124.1
EDUCATIONAL ORGANIZATIONS	384.2	21.1	23.0	23.7	62.0	47.8	206.6
RESIDENTIAL CARE FACILITIES	289.5	58.4	29.2	7.5	.5	3.6	190.3
INTER-GROUP COORD'N/PLANNING	12.3	-	.5	-	.2	.1	11.5
RECREATIONAL ORGANIZATIONS	187.7	20.2	-	21.7	-	31.7	114.1
LAW ENFORCEMENT ORGANIZATIONS	170.9	10.0	45.0	12.2	24.4	11.0	68.3
GOVERNMENT ORGANIZATIONS	2.9	-	-	-	-	-	2.9
GENERAL	300.8	31.2	15.7	15.0	13.6	25.0	200.3
DEPARTMENT OF MENTAL HEALTH	98.6	7.7	8.5	15.0	9.7	5.2	52.5
----TOTAL COMM GRP/AGY HOURS THIS PERIOD----------	2,227.0*	245.2*	207.9*	151.7*	182.5*	165.6*	1274.1*
TOTAL NON-COMM GRP/AGY HOURS THIS PERIOD----------	1,591.3*	55.9*	185.9*	47.3*	74.6*	76.5*	1151.1*
----------TOTAL HOURS THIS PERIOD----------	3,818.3*	301.1*	393.8*	199.0*	257.1*	242.1*	2425.2*
----------TOTAL EVENTS THIS PERIOD----------	3,291*	251*	461*	116*	211*	231*	2,021*
-------AVERAGE TIME (IN HOURS) PER EVENT----------	1.2*	1.1*	.8*	1.5*	1.1*	1.0*	1.2*
----------OPERATING COST PER HOUR----------	$13.10						
----------AVERAGE COST PER EVENT----------	$15.19	$14.41	$10.48	$19.65	$14.41	$13.10	$15.72
----------TOTAL EXPENDITURES THIS PERIOD----------	$50,000	$3,944	$5,159	$2,607	$3,368	$3,172	$31,750
TOTAL EXPENDITURES BY WORK AREA							
----------REGISTERED CLIENT WORK----------	$16,835	$1,940					$12,432
------NON-REGISTERED CLIENT CONSULTATION----------	$14,358	$1,192					$7,102
----------COMMUNITY EFFORT----------	$ 8,201						
----------INTERNAL FUNCTIONS----------	$10,606						

REPORT NO. 5

THIS REPORT PROVIDES TOTAL AGENCY AND PROBLEM AREA INFORMATION BY NUMBERS OF CLIENTS SERVED (UNDUPLICATED), NUMBERS OF PEOPLE SEEN (DUPLICATED), HOURS OF STAFF EFFORT SPENT WITH OR NOT WITH COMMUNITY GROUPS/AGENCIES, NUMBER OF EVENTS AND AVERAGE TIME PER EVENT. IT IS ALSO AVAILABLE AT THE PROGRAM AND COUNTY (GEO. AREA) LEVEL. YEAR-TO-DATE REPORTS ARE ALSO AVAILABLE AT EACH LEVEL.

EXHIBIT 4-14

INDIVIDUAL STAFF REPORT FOR (11) BLOOMBERG
DECATUR MENTAL HEALTH CENTER (0028)
JUNE 1973

REGISTERED CLIENT WORK			NO. OF INDIVIDUALS SEEN (DUPLICATED)			NO. OF GRPS/AGYS	TOTAL NO. OF	
I.D. NO.	PATIENT NAME		CLIENT	FAMILY	OTHER	INVOLVED	EVENTS	HRS.MIN OF TIME
166-04-9616	BRECKWINE	HUWARD	4	1	1	1	6	6.00 SELF + OTHER STAFF
566-06-2135	BUSH	SUSANNE	2	2	-	-	3	3.00 SELF + OTHER STAFF
310-38-6735	BYRNES	JOHN J.	2	1	-	-	3	3.00 SELF + OTHER STAFF
340-68-1109	CAPPERMAN	CARLA	1	-	1	1	1	1.00 SELF + OTHER STAFF
493-55-6044	CARNES	KAREN	1	1	-	-	1	.30 SELF
389-09-9165	JOHNSUN	CHARLES W.	6	5	5	3	10	9.00 SELF + OTHER STAFF
306-54-4601	JOHNSON	NORMA P.	1	3	-	-	2	1.00 SELF
009-63-6024	JORDAN	ELMER	2	2	1	1	3	1.30 SELF + OTHER STAFF
606-04-1339	MAYS	JAMES F.	3	1	1	1	3	2.00 SELF
394-06-0053	WALKER	GEORGE A.	1	-	4	2	4	.30 SELF
704-06-3122	WATHERLY	FLORA L.	3	-	1	-	3	3.00 SELF
11 CASES PROCESSED THIS MONTH		TOTALS	26*	16*	14*	9*	39*	30.30* SERVICE HOURS 22.30* STAFF HOURS

(91) NON-REGISTERED CLIENT CONSULTATION

----PROGRAM----			
INPATIENT	1	1	4
DIAGNOSTIC	-	-	2
EMERGENCY	2	-	2
SUSTAINING CARE	1	4	3
TRAINING/EDUCATION	-	1	3
COMM. PROGRAM IMPROVEMENT	-	-	7
TOTALS	4*	6*	21*

REPORT NO. 6

THIS REPORT PRESENTS THE EFFORT OF ONE STAFF MEMBER FOR THE MONTH OF JUNE, 1973.

'SERVICE' AND 'STAFF' HOURS WILL VARY.

IF STAFF--
1) ARE INVOLVED IN GROUP THERAPY SESSIONS
2) WORK WITH MULTIPLE COMMUNITY GROUPS/AGENCIES AT A SINGLE SETTING.

(99) COMMUNITY EFFORT

----PROGRAM----						
OUTPATIENT	-	-	3	1	1	.30 SELF
INPATIENT	-	-	1	2	2	2.00 SELF + OTHER STAFF
DIAGNOSTIC	-	-	7	3	3	3.30 SELF + OTHER STAFF
TRAINING/EDUCATION	-	-	2	1	2	1.00 SELF
COMM. PROGRAM DEVELOPMENT	-	-	7	2	3	8.30 SELF + OTHER STAFF
EVALUATION & SUPPORT	-	-	1	1	2	2.00 SELF
TOTALS	-*	-*	21*	10*	13*	17.30* SERVICE HOURS 12.00* STAFF HOURS

(97) INTERNAL FUNCTIONS

----PROGRAM----						
TRAINING/EDUCATION	-	-	-	-	1	1.00 SELF
EVALUATION & SUPPORT	-	-	1	1	1	2.30 SELF
TOTALS	-*	-*	1*	1*	2*	3.30* SERVICE HOURS 3.30* STAFF HOURS

INDIVIDUAL STAFF REPORT FOR (11) BLOOMBERG
DECATUR MENTAL HEALTH CENTER (0028)
JUNE 1973

		CURRENT MONTH	YEAR TO DATE
CLIENT	CONTACTS	30	143
FAMILY	CONTACTS	22	216
OTHER	CONTACTS	57	196
SERVICE	HOURS	68.30	417.30
STAFF HOURS		54.00	321.00

CLIENT NAME	I.D. NUMBER	MO. OF LAST INVOLVEMENT	NO. OF EVENTS
CASES OPENED			
JORDAN, ELMER	009-63-6024	6/73	6
JOHNSON, NORMA P.	306-54-4601	6/73	4
CAPPERMAN, CARLA	340-68-1109	6/73	3
BUSH, SUSANNE	566-06-2135	6/73	5
BRECKWINE, HOWARD	166-04-9616	6/73	10
BYRNES, JOHN J.	310-38-6735	6/73	5
JOHNSON, CHARLES W.	389-09-9165	6/73	17

TOTAL CASES ASSIGNED THIS MONTH 7*

CLIENT NAME	I.D. NUMBER	MO. OF LAST INVOLVEMENT	NO. OF EVENTS
CASES CLOSED			
WALKER, GEORGE A.	394-06-0053	6/73	7
CARNES, KAREN	493-55-6044	6/73	1

TOTAL CASES CLOSED THIS MONTH 2*

CASELOAD AT END OF MONTH			TRF TO STAFF	CASE CLOSING INFORMATION (1)
BRECKWINE, HOWARD	166-04-9616	6/73	10	( )	1 2 3 4	( ) ( ) ( )
BUSH, SUSANNE	566-06-2135	6/73	5	( )	1 2 3 4	( ) ( ) ( )
BYRNES, JOHN J.	310-38-6735	6/73	5	( )	1 2 3 4	( ) ( ) ( )
CAPPERMAN, CARLA	340-68-1109	6/73	3	( )	1 2 3 4	( ) ( ) ( )
JOHNSON, CHARLES W.	389-09-9165	2/73**	17	( )	1 2 3 4	( ) ( ) ( )
JOHNSON, NORMA P.	306-54-4601	6/73	4	( )	1 2 3 4	( ) ( ) ( )
JORDAN, ELMER	009-63-6024(X)	6/73	6	( )	1 2 3 4	( ) ( ) ( )
MAYS, JAMES F.	606-04-1339	6/73	3	( )	1 2 3 4	( ) ( ) ( )
NEWMAN, EDWARD P.	640-72-2153	4/73	1	( )	1 2 3 4	( ) ( ) ( )
OSBORNE, HENRY L.	216-09-0603	4/73	43	( )	1 2 3 4	( ) ( ) ( )
OSMAN, RICHARD W.	293-06-1459	4/73	121	( )	1 2 3 4	( ) ( ) ( )
RICHMAN, HUGH O.	366-19-9352	3/73**	36	( )	1 2 3 4	( ) ( ) ( )
ST. JAMES, RONDA	003-68-0612(X)	3/73**	39	( )	1 2 3 4	( ) ( ) ( )
WALKER, PATRICIA A.	291-04-6994	5/73	2	( )	1 2 3 4	( ) ( ) ( )

CASELOAD AT END OF MONTH 14*
(X)EX-OMH CLIENTS 2*

**SUGGESTED CLOSINGS -
NO CONTACTS IN 3 MONTHS 3*

(1) CASE CLOSING KEY
1-MOVED OUT OF AREA
2-DEATH
3-REFUSED FURTHER SERVICES
4-NO LONGER NEEDS SERVICES
( ) USE COMMUNITY GROUP/AGENCY NUMBERS

REPORT NO. 6 (CONTINUED)

THIS PART OF THE REPORT SUMMARIZES CONTACTS AND HOURS, AND DETAILS CASES ASSIGNED, CLOSED AND CASELOAD AT END OF MONTH. TO CLOSE A CASE, THE BOTTOM SECTION IS CODED AND RETURNED FOR PROCESSING.

INDIVIDUAL CLIENT PROFILE

CASE WAS OPENED 02/22/73

NAME - WISEHART, ELIZABETH M. GED. AREA - (55) MACON DECATUR M H CTR (0028)
I.D. NO. 347-22-8014 SUB-GEO. AREA - (21) AUSTIN RESPONSIBLE STAFF - 30

BASIC PROBLEM AREA - ALCOHOLIC
BORN - 07/19/45
RACE-SEX - WHITE FEMALE
NO. IN FAMILY - FOUR
MARITAL STATUS - DIVORCED
EDUCATION (CHILD) - NOT APP (PT IS ADULT)
EDUCATION (ADULT) - HIGH SCHOOL COMPLETE
OCCUPATION (ADULT) - CLERICAL AND KINDRED WORKERS

PUBLIC AID ELIGIBLE - NO
SOCIAL SERVICE ELIGIBLE - AFDC
INCOME RANGE - $6,001 - $7,500
FEE CHARGED - $9.00

SOURCE OF REFERRAL
FAMILY
COURT

PRIOR PSYCHIATRIC CARE
OUTPATIENT CLINIC
STATE HOSPITAL

PAYOR OF FEE
SELF/FAMILY
INSURANCE - GROUP

THE FOLLOWING HISTORY IS RECORDED IN THE CLIENT'S ACTIVITY FILE--

DATE OF EVENT	PROGRAM	ACTIVITY	PEOPLE SEEN PT	FAM	OTH	COMMUNITY GROUP/AGENCY	TIME HRS MIN	AGENCY STAFF INVOLVED*	NDA**
02/22/73	INPATIENT	DIAGNOSTIC INTERV	1				.30	1 PO	
02/22/73	INPATIENT	DIAGNOSTIC INTERV			2		1.00	1 PO	
02/22/73	INPATIENT	ORG MAINTENANCE					.30	1 PO	
02/23/73	INPATIENT	PSYCHIATRIC EXAM	1	1					
03/17/73	OUTPATIENT	INFO EXCHANGE			1	PHYSICIAN			
03/19/73	OUTPATIENT	INFO EXCHANGE			1	SCHOOL			
04/07/73	OUTPATIENT	INDIVIDUAL THERAPY	1						
04/07/73	OUTPATIENT	ORG MAINTENANCE							
04/08/73	OUTPATIENT	INFO EXCHANGE			1	COURT			
04/08/73	OUTPATIENT	INFO EXCHANGE			1	PUBLIC AID			
04/08/73	OUTPATIENT	INFO EXCHANGE	1	1					
04/12/73	OUTPATIENT	INDIVIDUAL THERAPY	1				1.00	1 PO 1 SW	
04/29/73	OUTPATIENT	INFO EXCHANGE			3	DIV OF VOC REHABILITATION	.30	1 PD	
04/29/73	OUTPATIENT	ORG MAINTENANCE					.30	1 PO	
							10.30*	TOTAL HOURS	

REPORT NO. 7

REPORT PRESENTS CENTER'S EFFORT WITH OR ON BEHALF OF THE CLIENT, E.M. WISEHART. INITIAL AND CLOSING DATA IS TAKEN FROM OPENING AND CLOSING FORMS. ACTIVITY INFORMATION IS TAKEN FROM DAILY SAS RECORDINGS.

05/01/73 CASE CLOSED AFTER 14 EVENTS BECAUSE PATIENT NO LONGER NEEDS SERVICES - REFERRED TO SHELTERED WORKSHOP DAY CARE CENTER

* AD - ADMINISTRATOR
AT - ACTIVITY THERAPIST
MD - PHYSICIAN
MH - PROGRAM WORKER
NR - NURSE
OF - OFFICE
OT - OCCUPATIONAL THERAPIST
PC - PASTORAL COUNSELOR
PO - PSYCHOLOGIST
PI - PSYCHIATRIST
RA - RESEARCH ANALYST
RC - REHABILITATION COUNSELOR
SE - SPECIAL EDUCATOR
ST - STUDENT WORKER
SW - SOCIAL WORKER

** N.C.A.
1) TELEPHONE
2) HOME TELEPHONE
3) CORRESPONDENCE
4) OUT OF AGENCY

EXHIBIT 4-16

DECATUR MENTAL HEALTH CENTER (0028) PAGE 1

TOTAL ORGANIZATION

COST INFORMATION FOR ALL STAFF HOURS

FOR THE PERIOD OF 04/01/73 THROUGH 04/30/73

PROGRAM.....	06	18	21	22	24	25	30	80	90	PERCENT
PERCENT OF PROGRAM EFFORT FOR ORGANIZATION	5.5	19.7	39.7	3.1	1.1	15.8	6.4	5.4	3.3	100.0*
NAME / PERCENT OF PROGRAM EFFORT BY STAFF										STAFF HOURS
01 SUNDERLAND	1.5	2.9	30.3	11.4	4.7	9.5	32.6	.3	6.9	115.6
02 SWEET	-	1.2	65.5	25.3	-	2.1	5.4	.5	-	162.1
11 BLOOMBERG	-	-	78.5	1.1	1.0	2.0	4.9	12.7	-	177.8
12 MUELLER	3.3	13.1	4.4	3.3	-	10.2	1.1	2.2	62.5	137.2
14 CRAFTS	-	-	92.0	-	2.4	1.7	1.9	2.0	-	143.1
22 FEINBERG	-	-	98.3	-	-	-	-	1.1	-	40.3
25 WEBB	-	-	90.7	-	-	-	-	9.3	-	18.3
26 SAUER	6.5	17.5	36.9	7.1	12.0	7.5	5.0	2.4	5.2	148.7
27 MILLS	-	4.3	66.9	-	-	3.9	21.3	3.6	-	154.6
28 MILLER	-	-	7.5	1.9	-	87.3	2.4	.8	-	184.4
29 SLOT	-	2.6	30.7	-	21.2	19.3	22.2	1.5	2.6	117.1
30 SCHLUETER	-	-	98.0	-	-	2.0	-	-	-	112.2
31 SVEREIKA	-	-	85.9	-	-	-	1.0	13.1	-	152.8
32 TURNER	-	-	79.3	-	-	2.6	7.9	3.5	6.7	119.2
33 PRITIKIN	-	12.3	63.3	-	-	-	4.7	4.9	14.8	40.6
42 STRLIGHT	-	28.8	10.8	-	-	-	24.5	18.7	17.3	164.4
51 MORRISON	-	83.4	14.5	.7	-	1.4	-	-	-	152.0
52 WELLS	-	78.9	17.5	1.7	-	1.9	-	-	-	145.4
54 JOHNSON	-	-	7.6	1.4						
55 BARNETT	-	71.3	22.2	1.8						
56 WEIDNER	-	43.1	30.7	-						
62 JACOBSEN	.8	-	74.9	10.6						
64 EVERETT	-	.8	77.9	2.2						
76 HIPSHER	-	84.6	2.2	1.1						
77 FINN	41.3	5.8	30.4	18.7						
78 BRINKOETTER	-	86.6	4.0	-						
79 SCHROER	-	76.8	2.2	1.7						
81 WILSON	-	-	47.6	2.9						
82 KING	-	-	31.5	1.6						
83 HAWTHORNE	-	51.3	40.1	2.4						
85 PAGE	99.0	.8	.2	-						
91 DIRKS	-	3.6	65.9	10.6						
92 DAN	-	-	83.0	9.3						
93 HESTERBERG	-	1.2	45.6	2.7						
94 GEORGE	-	.6	78.3	5.9	-	2.1	7.2	4.8	1.1	177.0
95 VOLUNTEERS	-	48.0	28.8	-	3.1	-	10.2	4.6	5.4	404.8
96 ELLIOTT	-	-	63.9	-	-	-	-	36.1	-	149.4
97 PETERSON	-	-	56.6	-	-	2.9	4.9	30.5	5.0	208.2
98 DRUG VOLUNTEERS	-	-	4.9	-	-	94.1	-	1.0	-	406.1
STAFF HOURS BY PROGRAM	326.3*	1173.0*	2365.1*	185.2*	66.2*	939.1*	382.2*	320.1*	195.2*	5952.3*

REPORT NO. 8

THIS REPORT PROVIDES INFORMATION NECESSARY FOR COST FINDING AND RATE SETTING. IT IS SUPPORTED BY ADDITIONAL PAGES FOR ALCHOLISM, RETARDATION, ETC., AND OTHER PAGES WHICH SHOW ONLY TIME SPENT WITH CLIENTS AND COLLATERALS.

The report is supported by separate pages (not shown), each detailing problematic populations such as Alcoholism, Retardation, etc. Additional pages show only time spent with patients and collaterals, a signicant revenue source for many centers. The report and its supporting pages mirror agency staff activities.

Since staff salaries account for 70 to 80 percent of agency expenditures, the data on this report is basic to cost-finding and rate-setting.

Organizational Structure. The basic principles of the system have applications to many human service organizations. This philosophy is supported by current installations of the system and its many and varied users. The community centers pattern their operation after the service-delivery programs suggested by the Federal Government as defining Comprehensive Community Mental Health Centers. The Department subregions have a stronger operational emphasis on linkage problems, consultation, education, community development and improvement, and direct service support. Each Subregion is treated as a separate entity within the system and receives personalized reports. The Superintendent responsible for the Subregions receives consolidated Subregion reports, whereas the Region Administrator report requires the merging of Subregion and Community Clinic/Center reports by geographic area.

The same SAS form format and the five basic programs, four basic activities and ten community group/agency categories are used by all agencies. To these basic categories each agency adds individualized items unique to its organizational needs. They are selectable from master lists.

While the professional is the guarantor of quality staff data, the Medical Record Librarian and/or the Business Office is the entrepreneur through which organizational data flow. These are the people to whom clinical professionals and administrators relate when in need of information about clients, programs, budgets and evaluations. The collection and editing of SAS data sheets is normally supervised by one of these offices. Involvement in this task creates an additional workload, but in turn, repays them many times because they no longer must assemble monthly, quarterly, semi-annual and annual reports, not to mention special study requests.

What are the Costs? The cost of operating the "Staff Activity System" by organizations having access to automated equipment will range from $100 to $500 per month depending on size and information interests. Costs can be lower if you use the system for sampling purposes. System acceptance by human service agencies has been overwhelming and computer service bureaus now offer processing services to interested agencies at reasonable rates.

While the basic elements of statistical data collection do not change in substance, a different approach to the definition of event statistics to be captured is offered by Dean Kliewer (1973) who describes the use of statistical data in an event-monitoring system developed for Prairie View CMHC.

The Need for Event Documentation: Department Store Analysis

A department store purchase is a rather significant event from the standpoint of the consumer, the department store, and possibly a credit agency (e.g., BankAmericard Service Corporation). All three participants need a written record identifying the item that was purchased, the price, the date of purchase, the name and address of both purchaser and sales unit, and the reporting sales clerk. Organized records of individual sales provide a way of answering many basic questions of interest to the store management. Gross sales totals, consumer response to special promotions, sales effectiveness of any organizational unit within the store, the level of performance of each salesman--these are only a few of the possible evaluative uses for the sales slip. For credit card holders, purchases may be associated with a number of consumer characteristics available in the credit bureau file. Who buys what kind of item is valuable data.

It is hard to imagine that any retail outlet could operate without the functional equivalent of a sales slip. Undocumented sales events would leave a store management almost entirely incapable of evaluating its operations. Some mental health programs are almost in such an uncomfortable position.

Often mental health center staff find basic questions like the following rather difficult: "How many of the people you serve do you help?" Staff are often unable to estimate the number of people served over a given time period, much less the number of people helped. Definitions of helping are not easy to formulate, and the degree of help given would seem almost beyond measurement.

Most mental health centers maintain the equivalent of a department store sales slip, but information systems are often constructed around an individual case record typically requiring some kind of free form entry from which it is possible to derive little uniform feedback. Often the clerical time required to obtain organized event summaries is prohibitive. In the past at Prairie View some data were recorded which classified specific events each month, but examination of that data came only once a year. And even that summary was quite limited. Consequently, a procedure for documenting events which would permit rapid recording and a flexible feedback process had to be developed. The product of this effort was an Event Monitoring System (EMS) for the comprehensive community mental health program.

A number of other people around the country have been working on this same problem. (See other section in this chapter.) Several systems in Illinois have been in operation for a number of years. By building on a number of earlier efforts Prairie View, the Kansas Association of Mental Health Centers Directors, and the Kansas Division of Mental Health and Retardation have cooperated in the development of EMS, a tool for collecting, organizing, and sharing mental health information. The system has been in operation at Prairie View and Johnson County Mental Health Centers since February of 1971. The North Dakota Mental Health Center and Kansas State Hospital are also testing the system. Additional accounting features including billing are now being integrated into EMS by the Kansas Division of Mental Health and Retardation.

System Components

The initial focus was on three types of information:

- Client-related information specifically pertaining to the entry and exit of the individual from the mental health system
- Documentation of specific substantive client-related events between entry and exit from the system
- Documentation of staff activities, either client-related or not client-related

Client entry/exit information is restricted to approximately fifty variables appearing on the face sheet or "Client Information Form (CIF)" (exhibit 4-18) of the client record folder. The client-related and staff-related events are recorded on an Event Record Form (exhibit 4-19) capable of receiving reports of almost any substantive event involving either clients or staff members in a mental health program.

A committee appointed by the Kansas Association of Mental Health Center Directors together with a representative of the Kansas Division of Mental Health and Retardation conceptualized the Client Information Form (CIF) and Event Reporting System. Their major work was with the CIF system, but also they participated with Prairie View in the preparation of the Event Monitoring System.

The entire process was greatly facilitated through a $31,000 grant from the Kansas Division of Mental Health and Rehabilitation. This money was utilized mainly to prepare the computer programs which permit the entire system to utilize electronic data processing capabilities.

In essence the product of the venture is an efficient and simple (simple from the standpoint of the MHC user) way of collecting, organizing and reporting on the basic client and staff related variables which need to be accessible for useful program evaluation. The system does not evaluate programs, but it provides the packaged information which can become the structure for meaningful program evaluation.

EXHIBIT 4-18

CLIENT INFORMATION FORM

ACTION CODE

OPEN ONLY	OPEN CLOSE	CLOSE ONLY	DELETE ONLY	CORRECT ONLY

1. FACILITY NAME/CODE

2. CASE NUMBER

3. ADMISSION DATE

4. NAME OF CLIENT

12. ADDRESS

ZIP CODE

14. UNIT

15. LEGAL ENTRY (TYPE)

5. HOME PHONE

6. BUSINESS PHONE

17. ADMISSION STATUS
1. First Admission
2. Readm. This Year
3. Readm. Prior Year

7. BIRTHDATE:

8. AGE:

9. SEX

13. COUNTY

16. Census Tract

18. LEGAL STATUS CHANGES

10. BIRTHPLACE

32. NEAREST RELATIVE

RELATIONSHIP

NO.

11. SOC. SEC. NUMBER

19. ADMISSION MODE
1. Inpatient
2. Partial Hosp.
3. Outpatient

21. CITIZENSHIP
1. American Born
2. Naturalized
3. Alien
4. Unknown

22. RACE
1. Caucasian
2. Negro
3. Am. Indian
4. Mexican
5. Other

HP:

BP:

33. IN EMERGENCY NOTIFY

RELATIONSHIP

20. URGENCY OF CONTACT
1. Emergency
2. Non-Emergency

HP:

BP:

23. EDUCATION

24. OCCUPATION

34. NAME AND ADDRESS OF REFERRAL SOURCE

Direct

Not Direct

25. RELIGION
1. Protestant
2. Catholic
3. Eastern Orthodox
4. Jewish
5. Other
6. None
7. Unknown
8. Athiest

35. CLASSIFICATION OF REFERRAL SOURCE

01. Self	09. Public Psy. Hospital	17. Inst. For Retarded	25. Disability Det. Unit
02. Family, Relatives	10. Pvt. Psy Hospital	18. Soc/Community Agency	26. College/School
03. Friends	11. Gen. Hosp. Psy. Unit	19. Nursing Home	27. Other MR Facility
04. Clergy	12. Gen. Hosp. No Psy. Unit	20. Pers. Care Home	28. Other Psy. Fac.
05. Pvt. Physician	13. Comprehensive MHC.	21. Boarding Home	29. Other
06. Pvt. Psychiatrist	14. Non Comprehensive Center	22. Halfway House	30. Attorney
07. Pvt. Psych. Soc. Wrk.	15. Public Health Agency	23. VA Hospital	
08. Court, Police, Corr. Agy.	16. Welfare Dept.	24. Voc. Rehab.	

26. MARITAL STATUS
1. Never Married
2. Married
3. Remarried
4. Common Law
5. Widowed
6. Divorced
7. Separated
8. Unknown

27. Gross Annual Family Income

28. No. Persons on Fam. Inc.

36. MISC.

29. WELFARE

30. VETERAN

31. RELATED TO VETERAN

39. LIST PREVIOUS PSYCHIATRIC/MENTAL RETARDATION CARE (MOST RECENT FIRST)

37. NO. PREV. I.P. ADM.

38. LENGTH I.P. CARE

NAME OF FACILITY	ADDRESS	STATE	TYPE OF FACILITY	SERVICE MODE	ADM. DATE / DISCHARGE DATE

40. CLASSIFICATION OF FACILITY TYPE (ABOVE)
1. Public Psychiatric Hospitals
2. Other Psychiatric Hospitals Including Psy. Unit In Gen. Hospitals
3. Comprehensive Mental Health Centers
4. Other Men. Health Inpatient Fac.
5. Outpatient Mental Health Clinics
6. Pvt. Practice Men. Health Professionals
7. Other (Specify)
8. This Facility
9. No Previous Mental Health Services
10. Unknown

41. ADMITTING DIAGNOSIS/SOCIAL PROBLEMS

a. b. c. d. e.

49. HOUSEHOLD MEMBERS/AGES

42. ESTABLISHED DIAGNOSIS/SOCIAL AND PHYSICAL PROBLEMS

a. b. c. d. e. f. g. h.

50. INSURANCE

43. DISCHARGE DIAGNOSIS/SOCIAL AND PHYSICAL PROBLEMS

a. b. c. d. e. f. g. h.

51. PHYSICIAN/ADDRESS/PHONE

44. TYPE SEPARATION
1. Client Withdrew
2. Facility Terminated
3. Mutual Termination
4. Withdrew AMA
5. Evaluation Complete
6. Transfer
7. Died

45. SERVICE RENDERED
1. Intake
2. Evaluation
3. Med/Surgical
4. Treatment

52. REFERRAL TO

Direct

Not Direct

46. DATE FINAL INTERVIEW

47. DATE TERMINATED

48. LENGTH I.P. STAY

YRS. DAYS

53. PART. HOSP. DAYS

54. O.P. INTERVIEWS

Ind. Group

Fam. Other

Home Total

55. CAUSE OF DEATH

56. ICDA8 Code

KANSAS FORM 01 (09-01-71)

EXHIBIT 4-19

MENTAL HEALTH CENTER EVENT RECORD FORM

Prairie View, Newton, Kansas

A. CENTER	1-3	033	B. DATE	MO. 4-5	DAY 6-7	YR. 8-9	C. STAFF I.D.	NAME	10-12

D. MEMORANDUM	PROJECT	ORG. UNIT	1. EVENT CODE	2. SESSION TIME HR. & MIN.	A/P	3. DURATION HRS. & MINS.	6. BILL/NO.	8. CONT. INDEX	11. RECIPIENT I.D. PRE-FIX	INDIVIDUAL	12. STATUS	E. NET CHARGE
COLUMNS 13-32	33-35		37-38	39-42	43	44-47	50	59-61	64-65	66-70	71-72	73-78

CODE CATEGORIES

BOX 1, EVENT CODE

INDIVIDUAL-ORIENTED SERVICES

SYSTEM ENTRY & EVALUATION
- 10 Inquiry/Screening/Referral
- 11 Intake Evaluation
- 12 Non-Intake Evaluation
- 13 Physical Exemination
- 14 Interview/Contact, Other
- 19 Other Entry/Evaluation

TREATMENT/THERAPY
- 20 Individual Therepy
- 21 Specialty Interview
- 22 Femily Therapy
- 24 Group Therapy
- 25 Psychodrame Group
- 26 Couples Group
- 27 Home Visit
- 28 Couples Therapy
- 29 Other Treatment/Therapy

TREATMENT SUPPORT/MAINTENANCE
- 30 Collaterel Interview
- 31 Rounds
- 32 Med. Check
- 33 Med. Treatment, Other
- 35 Collateral Group
- 37 Case Conference
- 39 Oth. Treatment Support/Maintenance

ACTIVITY/EDUCATION SERVICES
- 43 Resocialization Group
- 44 Religious Group
- 46 Pertial Hospitalization
- 47 Day Center
- 49 Other Activity/Ed. Service

COMMUNITY-ORIENTED SERVICES
- 50 Patient Centered Case Consultation
- 52 Other Consultation, Workshops, Labs
- 60 Public Information/Education
- 61 Meeting w/Visitors/Consultants
- 65 Special Ed. Service
- 66 Community Disc. Group
- 67 Collab. w/Other Professionals
- 69 Other Community Service

INTRA-ORGANIZATION SERVICES
- 70 Administrative Meeting
- 71 Clinical Meeting
- 73 Prog. Planning & Eval.
- 77 Patient Related Admin.
- 79 Non-Patient Related Admin.
- 80 Supervision
- 81 Staff Training/Education
- 82 Meeting w/Supervisor
- 83 Discussion Participation
- 84 Writing
- 88 Program Evaluation/Research
- 93 Travel
- 94 Sick Leave
- 95 Vacation
- 96 Professional Leave
- 97 Other Leave Time
- 99 Other Intra.-Org. Services

BOX 6, BILL/NO BILL
- B = Bill
- P = Package
- N = No Bill

BOX 12, STATUS

COUNTY/BILLING STATUS, COL. 71
- 1 = Harvey Private
- 2 = Harvey Welfare
- 3 = Harvey CMHS
- 4 = Marion Private
- 5 = Marion Welfare
- 6 = Marion CMHS
- 7 = McPherson Private
- 8 = McPherson Welfare
- 9 = McPherson CMHS
- A = Other Kansas Private
- B = Other Kansas Welfare
- C = Out of State Private
- D = Special Contract
- E = Other (Specify)

SERVICE MODE, COL. 72
- 1 = Inpatient
- 2 = Partial Hosp.
- 3 = Outpatient
- 4 = Intermittent Delivery of Clinical Services
- 5 = Intermittent Delivery of Non-Clinical Services
- 9 = Other

BOX 11, RECIPIENT IDENTIFICATION

NON-PATIENT NON-STAFF PARTICIPANT CODES
- MC Private Comp. MH Center or Clinic
- PT Pvt. Psychiatrist, Psychologist, Soc. Worker
- MD Pvt. Physician (Non-Psychiatrist)
- MF Pvt. Medical Facility (Non-Psychiatric)
- PH County Public Health
- CW County Welfare
- LE Law Enforcement (Police & Courts)
- BC Nursing Homes, Boarding Care Fac. (Custodial)
- HH Halfway House (Transitional)
- RY Residential Youth Agency
- SW Sheltered Workshop
- EA Employment Agency
- EM Employer
- IN Industry
- SE Private Primary or Sec. School
- PC Private College
- PE Public Primary or Sec. School
- SC Public College or State University
- CL Clergy
- CO Church Related Organization
- LG Local Gov't Agency (Other than Listed)
- SG State Gov't Agency (Other than Listed)
- NG National Gov't Agency (Other than Listed)
- OL Other Private Organization (Local)
- OS Other Private Organization (State)
- ON Other Private Organization (National)
- MO Multiple Group/Agency/Organization
- CM Community at Large
- OI Other Private Individuals
- VO Volunteers
- TR Trainees
- OX Other (Specify)

Uses of the Event Monitoring System

Overview. Center program evaluation which materially aids clinical and administrative decision-making is the objective of the Event Monitoring System. To mention only a few possibilities, the system permits a study of patient movement among services, resource utilization, staff time utilization, and the event characteristics associated with groups of staff function constituting specific program components. The activity schedules of staff members rendering direct client services or indirect services may be examined and evaluated. Viewing client related events in the context of the demographic, social, and personal characteristics of those clients as recorded both at admission and at discharge is also possible.

The Event Monitoring System (EMS) is utilized as a primary source document for patient billing as well as for cost accounting and cost-benefit analyses. Direct services to patients as well as clinical consulting and prevention-oriented work in the community may be monitored.

The EMS was constructed in a manner which could permit any mental health center to utilize the system. Staff members from all centers do not use the same categories for thinking about what they do and how they work. Centers may offer very different services. But adaption of the EMS to almost any mental health program and to almost any organizational structure should be possible. Each application of the system may utilize its own event categories and its own rules for assembling and organizing the data.

EMS Structure. The system described in this Event Monitoring System writeup is designed to answer the following set of questions regarding each system-related event: "Who representing what organizational unit does what with or for whom, where, when, for how long and at what cost?"

Exhibit 4-20 is a diagram entitled, "Event Reporting System" which attempts to represent the system pictorially. The focus of any Event Report is on an event (defined as a center organizational unit providing some activity or service for a recipient). But staff, administrative units, a meeting location, time, and cost may also be represented as event components.

Following is exhibit 4-21 showing the "Relationship of the Event Monitoring System to Other Center Systems." Event reports may contain a patient identification number, which may be used to relate events directly to the patient records routinely collected at admission and discharge. EMS computer storage files are not yet linked with the more detailed narrative documentation which often accompanies the work of center staff members, e.g., social histories. But the service recipient identification processes do facilitate the task of locating specific groups of patient records for clerical integration purposes.

EXHIBIT 4-20

EVENT REPORTING SYSTEM

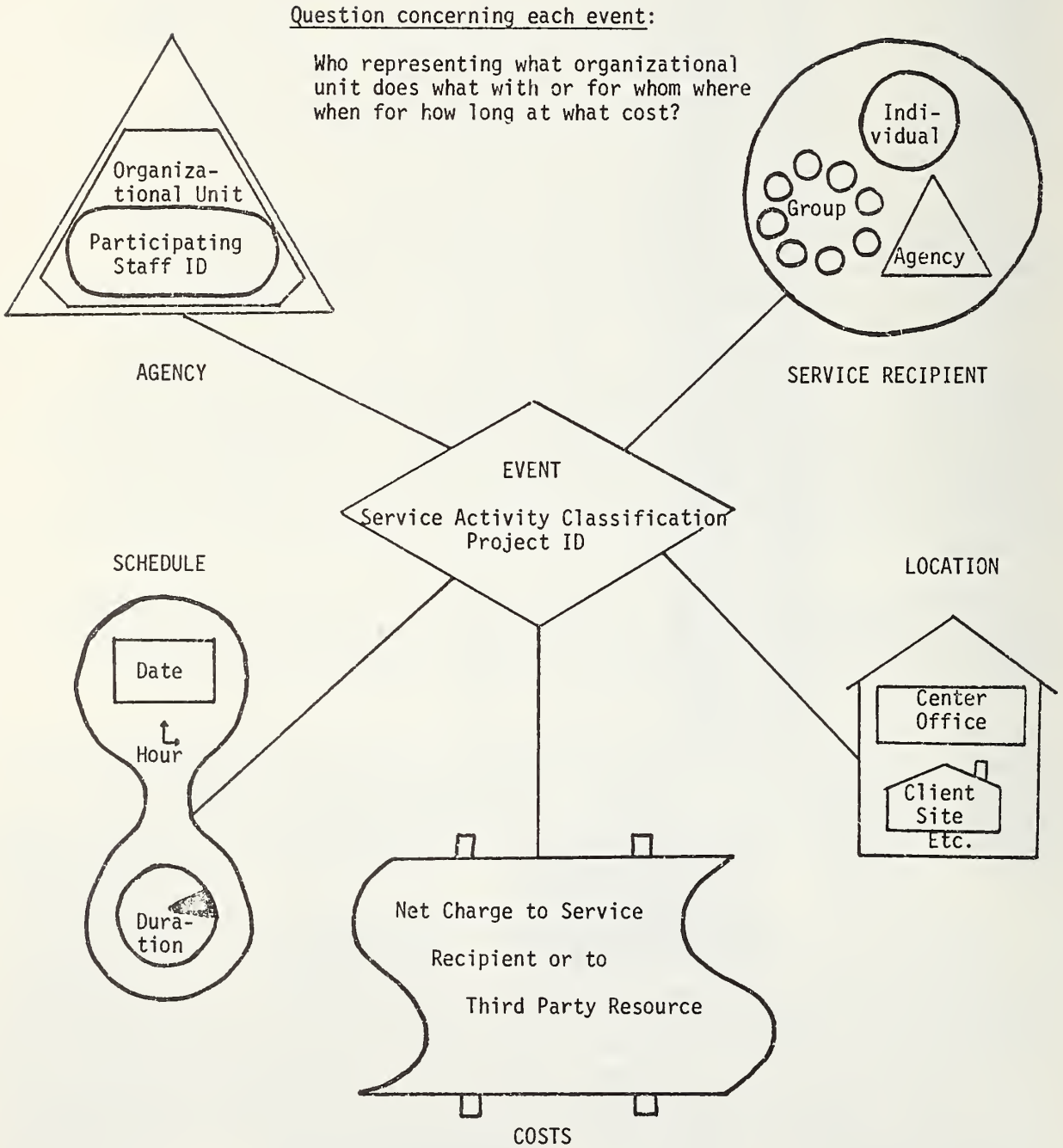
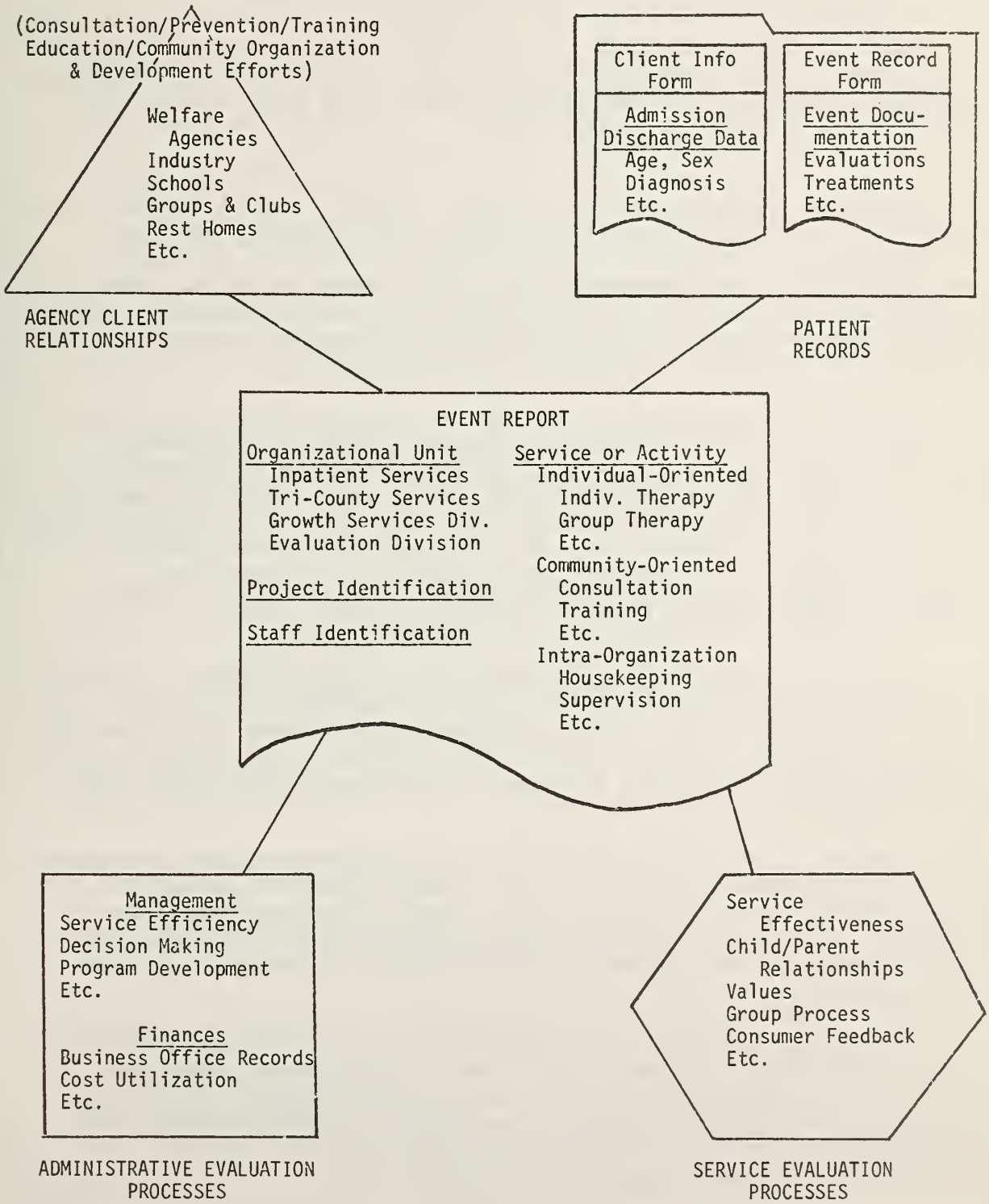


EXHIBIT 4-21

RELATIONSHIP OF EVENT MONITORING SYSTEM
TO OTHER CENTER SYSTEMS



Anticipated Applications. Consultation/prevention/training/education/community organization and development efforts also may be scrutinized with the help of an event report. The staff schedule recording feature makes such a relationship to program activity possible.

Another fundamental use is in program administration. Information is desired by center administrative groups to facilitate decision-making and policy formation. For this reason finances and staff schedule are linked with the record of center events.

The event report can further be used as a base for the subsequent development of a broad spectrum of topical studies. One of the continuing goals is to evaluate service effectiveness. Staff members have begun to design studies in areas like values, group process, and community organization which will depend heavily upon event report data. Some of these studies may require the establishment of criterion measures, control groups, and the taking of additional data. In any case, a number of issues can be examined with the help of EMS information.

From the perspective of implementation, the mechanism requires more than passing interest on the part of the staff members and secretary. The staff member must be acquainted with the structure of the reporting system. Experience has shown initially both professional staff members and secretaries respond with considerable anxiety to the procedure. Yet experience with the system, over the past three years, has shown that staff requirements in terms of time and effort do not appear to be excessive. Most reports require less than 30 seconds of secretarial time to complete. Often less than 15 seconds is required.

Exhibit 4-22 is an outline providing some "Sampling Analyses Available" through event reporting. These analyses and breakdowns present only a few of the more obvious uses of EMS. Although these analyses may be done by hand or with the help of a sorter, such routine analyses may be greatly facilitated with the help of a computer. Computer programs which will generate some of this data are in use.

If center events are examined over several months or years, movements of patients through the mental health center system from entrance to exit can be viewed. Such data provides more useful information about the operation of the center with its clients than has been available heretofore. Similar values may be obtained by examining staff activity over longer time periods.

Although the system is to be utilized with direct patient services, a major evaluative investment will be made in the broader community services area. Many center staff members are active in the development of liaisons with community agencies and groups. Through the EMS, staff activities have become less mysterious and more open to examination by board members, community groups and administrators.

EXHIBIT 4-22

Sample Analyses Available

A. Data available on individual patients for any time period, administrative unit or staff member

1. Sequential listings as well as counts of mental health service events; these can be broken down by contact type.
2. Event counts or lists categorized according to criteria derived from admission/discharge records:

   Age, sex, marital status, diagnosis, sibling position, referral source, criteria of therapeutic movement, etc.

3. Patient movement through several program elements over specified time periods.
4. Financial resource utilization for individuals or groups of patients categorized by admission/discharge records

Total service costs	Fees paid
Costs to Third Party Resources	Etc.
Fees Charged to Client	

B. Agency Client Data available for any time period, administrative unit or staff member

1. Listings or counts of mental health service events by any agency, agency category or group of agency categories (see collaborant classification--Box 11).
2. Listings or counts of the agencies engaged in specified transactions.
3. Listings or counts of staff members relating to specified agencies.

C. Staff Schedule or Time Utilization Data available

1. Time utilization analyses available for any staff member or group of staff members

   a. For any calendar period
   b. With any service event
   c. With any agency or group
   d. For any administrative unit (organizational unit)
   e. With any specific service recipient (patient, agency, group)

2. Report on staff financial resource allocation to any service activity or organizational unit

   a. For any calendar period
   b. With any agency or group
   c. With any specific client or service recipient (patient, agency, group)

D. Referral patterns and interdependencies among organizational units (e.g., staff time allocation among organizational units.)

Moving from statistical subsystems designed for small to medium sized CMHCs Clifford Nelson (1973) describes the specific features of a large county system designed for Hennepin County, Minnesota.

Capturing Patient Data. The statistical subsystem tells what is going on with regard to the staff, the patients, and programs. The Hennepin County Mental Health Center (HCMHC) uses a computer-based Visitor Record System (VRS) to gather statistics. Exhibits 4-23, 4-24, 4-25 give some insight into the capabilities and output of the VRS through examples of the information gathered. Almost any kind of cross-classification of information on clients is obtainable with this system.

Capturing Staff Data. The HCMHC has utilized an innovative method of recording staff time and effort called Random Moment Time Sampling. This method has proven to be fairly accurate in informing HCMHC Administration where the activities are being performed by what staff and discipline. Data was gathered by randomly sampling 47 clinical staff over a four week period by making 3,000 phone calls. There are about 80 activity categories available to the system.

While random moment sampling is not a perfect system for determining staff time and effort, it does seem to serve its purpose well in a large human service organization. The following comments summarize experience to date:

EXPERIENCE WITH RANDOM MOMENT STAFF ACTIVITY STUDIES (Salsbery, 1971)

By Robert Sherman, Ph.D.
Chief Biometrician
Hennepin County Mental Health Center

A critical factor in any human service cost-finding system is the allocation of staff costs to the services provided. The usual approach to this problem is to estimate the proportion of time that a staff person devotes to a certain service, and allocate the cost accordingly. All staff perform tasks that are more or less demanding, and more or less pleasant, and most would agree that more demanding, more unpleasant tasks deserve greater compensation per unit of time. An accounting of staff time might be done in several ways:

1. By administrative fiat. ("You are to work half-time on x and half-time on y.")
2. Secretarially supported appointment book and activity schedules
3. Staff self-report
4. Staff self-report on random days
5. Random moment observations of staff

Hennepin County Mental Health Center has conducted a random moment study of staff activities during each of the last 3 years. The design procedure, what was done, what worked well, and what didn't, are described briefly.

EXHIBIT 4-23

HENNEPIN COUNTY MENTAL HEALTH CENTER - ACTIVE PATIENTS ONLY

TALLY AS OF
DATE - 1/ 1/73

COUNTS BY (3) SEX
AND
(4) MARITAL STATUS

MARITAL STATUS	SEX: MALE	FEMALE	TOTAL	PERCENT
SINGLE	733	595	1329	50
MARRIED	218	376	594	22
WIDOWED	24	138	162	6
DIVORCED	116	291	407	15
SEPARATED	69	102	171	6
TOTAL	1160	1502	2662	99
PERCENT	44	56	100	

CHI-SQUARE =177.13 WITH 4 DF. (EX = 0)
TOTAL NUMBER OF RECORDS EXAMINED, 2747

HENNEPIN COUNTY MENTAL HEALTH CENTER - ACTIVE PATIENTS ONLY

TALLY AS OF
DATE - 1/ 1/73

COUNTS BY (3) SEX
AND
(5) RACE

RACE	SEX: MALE	FEMALE	TOTAL	PERCENT
WHITE	1066	1417	2483	94
NEGRO	67	53	120	5
INDIAN	10	14	24	1
MEXICAN	2	2	4	0
OTHER	12	6	18	1
TOTAL	1157	1492	2649	101
PERCENT	44	56	100	

CHI-SQUARE = 11.68 WITH 4 DF. (EX = 2)
TOTAL NUMBER OF RECORD EXAMINED, 2747

SAMPLE TABLES --
PATIENT CHARACTERISTICS, INITIAL DATA.

These tables sample the kinds of descriptive information available on our Center's patients before any evaluation or treatment has begun. About a dozen such tables are produced in our Center on a yearly basis for general reference and documentation. Standing alone, they are not usually of great value.

HENNEPIN COUNTY MENTAL HEALTH CENTER - ACTIVE PATIENTS ONLY

TALLY AS OF
DATE - 1/ 1/73

COUNTS BY (3) SEX
AND
(8) REFERRAL SOURCE

REFERRAL SOURCE	SEX: MALE	FEMALE	TOTAL	PERCENT
SELF	477	573	1050	48
FORMER PT	5	5	10	0
STATE HOSP	144	225	369	17
OTHER				
[illegible]	1	3	4	
SCHOOL	34	19	53	2
REHAB AGENCY	12	8	20	1
WELFARE DEPT	32	41	73	3
OTHER SOCIAL	14	23	39	2
OTHER/UNKN	1	5	6	0
TOTAL	959	1212	2170	99
PERCENT	44	56	100	

CHI-SQUARE = 41.48 WITH 17 DF. (EX = 5)
TOTAL NUMBER OF RECORD EXAMINED, 2747

HENNEPIN COUNTY MENTAL HEALTH CENTER - ACTIVE PATIENTS ONLY

TALLY AS OF
DATE - 1/ 1/73

COUNTS BY (2) AGE AT ACCEPTNCE
AND
(16) RESIDENCE AREA

RESIDENCE AREA	AGE AT ACCEPTNCE: 1 - 4	5 - 9	10 - 14	15 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 +	TOTAL	PERCENT
CAMDEN	1	3	8	5	17	11	9	10	7	1	72	3
NORTHEAST	1	10	14	6	30	20	12	19	9	2	123	5
PILOT CITY W				3	28	18	15	19		3	104	4
	0	6	5			9						
SIBLEY FIELD	3	9	12	7	26		10	7	2	2	107	4
LONGFELLOW	0	3	4	4	16	21	11	5	0	0	64	2
SOUTHWEST	1	9	12	10	38	27	16	12	7	0	132	5
NORDMIS	1	4	3	7	31	18	12	6	3	2	88	3
NORTH SUBURB	0	0	2	2	13	11	9	4	1	0	42	2
NW SUBURBS	0	9	19	20	76	26	25	13	8	3	209	9
WEST SUBURBS	1	4	8	16	44	32	18	11	5	1	140	6
S. SW SUBURB	1	2	11	16	42	22	12	10	7	2	125	5
TOTAL	19	83	126	148	743	435	372	304	123	36	2379	100
PERCENT	1	3	5	6	31	18	16	13	5	1	99	

BIOMETRY REPORT

EXHIBIT 4-24

HENNEPIN COUNTY MENTAL HEALTH CENTER - CONSULTATION AND EDUCATION PROGRAM

C & E INDIVIDUAL STAFF ACTIVITY REPORT FOR THE PERIOD 1/ 1/73 TO 3/31/73

STAFF = NO. 809, SHERMAN BOB

DATE	RECIPIENT	SERVICE/TIME	REMARKS
2/12/73	23 = ADMINISTRATION GROUP = HENN CNTY GEN HOSP	565 = LECTURE/PRESENTN TIME = 1.00 HRS	C&E AOM TPNEE
2/20/73	111 = PERSONNEL DEPARTMENT GROUP = OTHER CNTY DEPTS	568 = PROBLEM CONSULT TIME = 1.00 HRS	C&E CLERICAL TASK STUDY
2/28/73	1C = UNSPECIFIED GROUP = HENN CNTY GEN HOSP	560 = UNSPECIFIED C&E TIME = 1.00 HRS	C&E MED REC COMM
3/ 9/73	167 = O/C CONSULT/VST/C/S GROUP = AGENCIES	566 = PROGRAM EVAL TIME = 2.00 HRS	THE RV FLS MHC
3/ 9/73	11C = UNSPECIFIED OTHER CNTY DEPTS	560 = UNSPECIFIED C&E TIME = 1.00 HRS	C&E MIS COMM
3/23/73	1C = UNSPEC... GROUP = HENN CNTY GEN ...	568 ...SULT 1.00 HRS	C&E
3/27/73	111 = PERSONNEL DEPARTMENT GROUP = OTHER CNTY DEPTS	560 = UNSPECIFIED C&E TIME = 8.00 HRS	C&E CIVIL SERV BD
3/29/73	1C = UNSPECIFIED GROUP = HENN CNTY GEN HOSP	560 = UNSPECIFIED C&E TIME = 1.00 HRS	C&E MED REC COMM
3/30/73	117 = AREA PROGRAM OFFICE GROUP = OTHER CNTY DEPTS	568 = PROBLEM CONSULT TIME = 0.25 HRS	C&E
3/30/73	13C = UNSPECIFIED GROUP = AGENCIES	568 = PROBLEM CONSULT TIME = 0.40 HRS	C&E GLENWOOD HLS HOSP

SAMPLE TABLES
OPERATIONAL STATISTICS, TALLIES OF SERVICES

These are samples of reports produced monthly or quarterly to keep track of the number and type of services the Center provides.

HENNEPIN COUNTY MENTAL HEALTH CENTER - ACTIVE PATIENTS

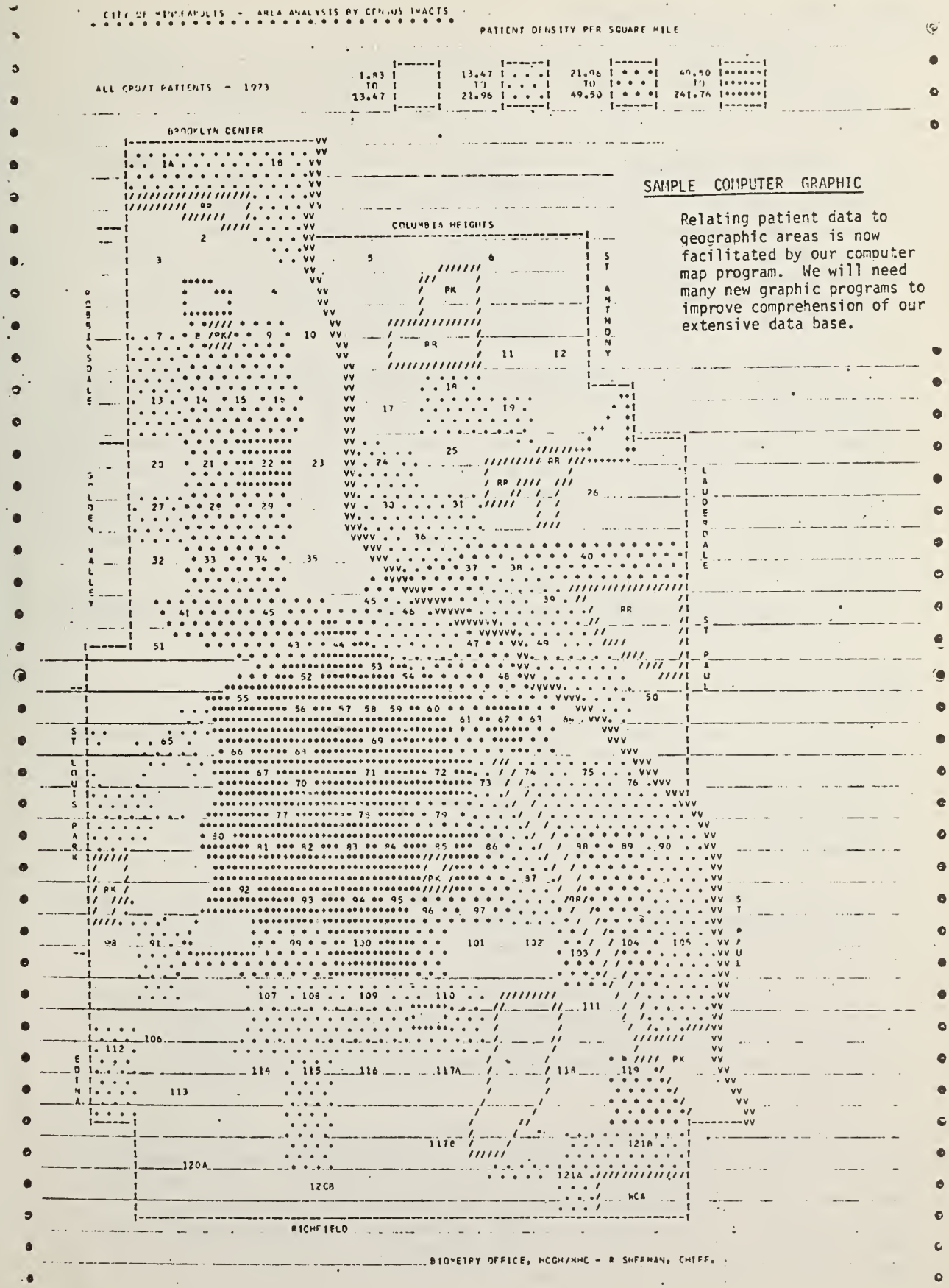
VISITS DURING THE PERIOD - 1/ 1/73 TO 3/31/73

COUNTS BY (7) PROFESSION AND (11) CPOT SERVICES

	PROFESSION											
CPOT SERVICES	PSYCHIAT INTERN	PSYCHOLO	PSYCH ST	SOC WORK	SW STUDE	PSYCH NU	NURS STU	OTHER PR	OTHER,UN	TOTAL	PERCENT
UNSPECIFIED	0	0	0	0	1	0	0	0	0	0	1	0
CO	0	0	1	0	12	1	2	0	0	0	16	0
SCREENING	8	18	53	26	223	47	38	0	0	5	418	12
INDIVIDUAL	211	11	156	215	309	55	29	0	3	14	1003	29
[illegible]	0	0	7	0	295	02	0	0	0	2	391	11
[illegible] TEST			0							0		
SPECIAL TEST	0	0			0	0	0	0			10	1
EVALUATION	3	0	3	10	0	2	0	0	0	0	18	1
M STUDY INC	1	0	0	0	0	0	0	0	0	0	1	0
M STUDY APC	11	0	0	0	0	0	0	0	0	0	11	0
TOTAL	989	35	241	265	1315	190	70	0	11	306	3422	99
PERCENT	29	1	7	8	38	6	2	0	0	9	100	

CHI-SQUARE ******* WITH 117 DF, IEX = 721
TOTAL NUMBER OF RECORD EXAMINED, 8380

EXHIBIT 4-25



SAMPLE COMPUTER GRAPHIC

Relating patient data to geographic areas is now facilitated by our computer map program. We will need many new graphic programs to improve comprehension of our extensive data base.

RANDOM MOMENT STUDY PROCEDURE

1. Deciding upon the staff to be included. Only the 47 clinical service staff were used in the study. Clerical and administrative personnel had their time allocated by administrative fiat.

2. Deciding upon activity categories. About 80 activity categories are outlined on exhibit 4-26 such as during therapy, educational testing and psychological testing. A very large number of random moment observations would be required to accurately assess time allocations for all of these activity categories. It was expected that only the more active categories, or aggregations of minor categories would be assessed. The plan was to use activity categories which corresponded to counted services.

3. Deciding upon the number of sample points, the sampling rate, and the period to be covered. One person could handle telephone contact sampling at a maximum rate of about 300 per day. A 2-week continuous sampling schedule was spread over a 4-week period so the interviewer would work only half a day at a time on his repetitive task, and the data would reasonably represent activities during a 1-month period. By spreading the sampling schedule over a longer period the required staffing time for sampling is dispersed and the samples more reasonably represent the staff time effort over the year.

4. A random staff member, random time-sampling schedule was generated and the program was begun.

SOME DIFFICULTIES

1. Despite the Administration's request that staff keep a designated secretary informed as to their activities at all times, the proportion of "unknown" (i.e., staff could not be found and the secretary did not know what they were doing) points was significantly higher than expected. For various reasons, up to 20 percent "unknown" points were expected but 28 percent were obtained.

2. The study covered only daytime activities--8:00 a.m. to 5:00 p.m.--but some staff conducted significant job activities in the evening, especially group therapy meetings and lectures or presentations.

3. Definitional ambiguities in the activity categories--many rather subtle and hard to anticipate--were sufficient to cast doubt on a refined interpretation of the data. "Screening" activities, for example, were performed even when no screening services were being recorded.

Self-Report. The random moment data was compared to self-report data for 2 of the 3 years the random moment study was conducted (excluding unknowns). Not surprisingly, statistically significant differences were found, but differences were not great enough to change any general interpretation. As a result, a staff self-report system requiring each staff memeber to report in detail his activities for approximately 25 random chosen days per year is now under development.

EXHIBIT 4-26

SAMPLE DOCUMENTS FROM RANDOM MOMENT STUDY

A RANDOM SAMPLE OF TIMES AND STAFF MEMBERS TO BE USED FOR THE HCMHC RANDOM-MOMENT STUDY

THURSDAY

SAMPLE INTENSITY, 300 PER DAY
NUMBER OF STAFF MEMBERS, 47

TIME	STAFF NO.	STAFF NAME	LOC/PHONE	ACTIVITY	
8. 3	18	HARLAN	7651	.....	.....
8. 4	34	ORTH	3068	.....	.....
8.40	15	[illegible]AN	30[illegible]	.....	.....
8.42	45	RANCE	2310	.....	.....
8.43	47	STRAND	6418	.....	.....

HENNEPIN COUNTY MENTAL HEALTH CENTER - ADULT OPD/T UNIT

RANDOM MOMENT STUDY COVERING THE PERIOD,10/ 1/72 TO 10/31/72

PERCENTAGES ARE OF TOTAL RELEVENT OBSERVATIONS IN DISCIPLINE CATEGORY

DISCIPLINES

ACTIVITY	PSYCHIATRIST STAFF N	PSYCHIATRIST STAFF %	PSYCHIATRIST STUDENT N	PSYCHIATRIST STUDENT %	PSYCHOLOGIST STAFF N	PSYCHOLOGIST STAFF %	PSYCHOLOGIST STUDENT N	PSYCHOLOGIST STUDENT %	SOCIAL WORKER STAFF N	SOCIAL WORKER STAFF %	SOCIAL WORKER STUDENT N	SOCIAL WORKER STUDENT %	TOTAL %	NON. STAFF $ COST
501	0	0.0	0	0.0	0	0.0	0	0.0	13	1.9	0	0.	0.7	$ 348 SE= 25%
502	0	0.0	0	0.0	2	[illegible]	0	0.0	[illegible]	-	0	0.0	[illegible]	$ 290 [illegible]
513	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.[illegible]	0.0	$ 0 SE= 0%
514	23	5.2	0	0.0	22	5.2	0	0.0	46	6.6	0	0.	5.2	$ 3299 SE= 9%
1000	66	14.9	0	0.0	79	18.6	2	1.8	122	17.4	0	0.0	14.8	$ 9303 SE=***%

RANDOM MOMENT ACTIVITY CODES

00 Not used
1 00
2 Screening
3 Individual
4 Group
5 Crisis Group
6 Mar/Family Counseling
7 MPC/APC
8 Drug Therapy
9 Routine Testing
10 Special Testing
11 Evaluation
12 M Study Ind.
13 M Study APC
14 OPD/T Unit administration, service support, meetings
20 CIC Unit administration, service support, meetings
21 Crisis call
22 Suicide call
23 Follow-up call
24 Walk-in, initial visit
25 Return visit
29 On [illegible]
[illegible]sultation
[illegible]rogram development
63 Provision of program service (A)
64 Provision of program service (B)
65 Open Code
66 Program evaluation
67 Case consultation
68 Problem consultation
69 Lecture or presentation
70-79 Not Used
80 Inpatient administration, service support, meetings
81 Inpatient treatment
85 Partial Hospitalization session
86 Individual therapy
87 Home visit
90 General MHC meetings, administration, service support
91 Research
[illegible]
[illegible]
92 Program evaluation
93 Program planning
94 Staff development
95 Student training or supervision
98 Other
99 Not known

John Richard Elpers and Robert Chapman (1973) describe a statistical data subsystem for another large and complex operation using the example of Orange County Department of Mental Health.

Description of County. *Orange County is located on the Pacific Ocean, south of Los Angeles and North of San Diego Counties. The population is in excess of one and a half million and continues to grow rapidly. The county is undergoing a great deal of change because of its rapid urbanization and the influx of highly diverse groups of people. While its mean family income is somewhat above the national average, its population ranges from the very poor to the very wealthy and encompasses a significant minority population.*

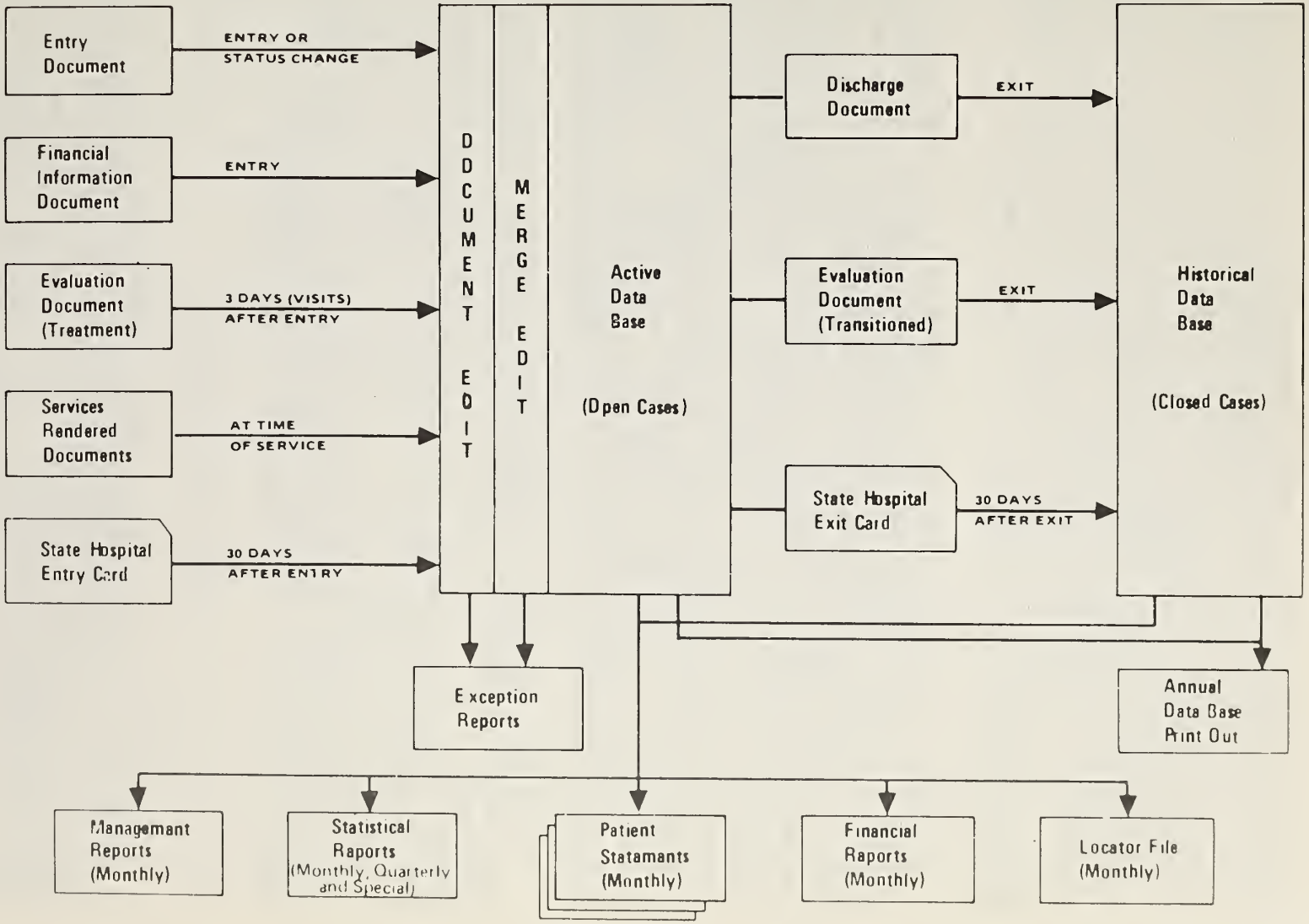
The Department of Mental Health is relatively new in Orange County and its major development has come in the past three years. While the department operates some specialized central services (longer term inpatient care, alcoholism and drug abuse), its major thrust is toward administrative and geographic decentralization. Services are now offered out of approximately twelve different locations throughout the county. They range across all age groups and through the entire spectrum of mental health services. There are both direct county operations and contract services.

Requirements. *The management information system design had to meet the broad requirements of this diversified system. On the other hand, the budget for such a project was limited so expensive forms of technology such as computer terminals in each office could not be considered. The resulting system was the product of close cooperation between a psychiatrist and a highly experienced systems analyst who was quite familiar with data processing assets and liabilities. In addition, the staff of the entire department was consulted at both the administrative and operational levels in order to determine the questions they had concerning the operation and what data was actually needed. In addition, this collaboration with the entire staff was necessary to negotiate how data might be gathered most effectively with the least disruption of existing operations. The basic system that resulted is shwon in exhibit 4-27.*

Basic Documents. *All data are gathered on five basic documents with some ancillary special purpose inputs. All documents are identified by the patient's last name, birth year, and three initials. No uniform or central number system is required. Documents are collected weekly, given a visual edit, forwarded weekly to a data processing contractor for keypunching. During the last two days of the month, data are gathered and edited by the end of the month; the computer contractor has four days in which to complete keypunching, process the data, and generate all reports. All documents are edited against authority lists in the computer; as the file is built and each document is aggregated to the*

EXHIBIT 4-27

Management Information System
SYSTEM DESIGN



appropriate patient, there is another edit step where documents are extruded if they cannot be appropriately matched to an open case. These exception lists are manually reduced and returned to the system with the next computer run. An active data base is built by patient in alphabetical order. Patients can then be discharged from the active data base to the historical data base by the filing of a discharge document or transitional evaluation document. There are also State hospital cards illustrated; these are obtained by agreement with the State Department of Mental Hygiene which punches all available data on Orange County patients in the State hospital in appropriate format for direct entry into the Orange County system. Unfortunately, these cards arrive thirty days late so the State hospital reports are produced a month late.

Reports. The reports generated are shown at the bottom of the illustration. These come from the active data base with a reference to the historical data base for such items as previous history. They include the managment reports which are produced monthly, 6 working days after the close of the month; the statistical reports that are produced monthly, quarterly and at special request; patient statements or bills which are produced individually for each patient each month; financial reports which include patient ledgers, summaries by reporting unit, by patient, by month for the whole system; and a locator file which is produced monthly. The locator file is basically a printout of the active data base add is an extremely valuable item. It allows a look up on any patient active in the system and to have immediate access to all information concerning the patient. Annually, there is a printout of the entire data base which obviates the necessity of maintaining the monthly locator files and provides a handy reference document.

The entire system was designed by the Orange County Department of Mental Health including form formats and specifications for data processing requirements. It was then placed out for data processing bids; this bid included both the programing, a one-time cost, as well as the routine keypunching and processing which varies by volume of data.

An important aspect of the documents inputted into this system is that they replaced existing similar chart documents with multicarbon snapout forms with copies for the chart, management information system, and anyone else who needed them without undue increase in the clerical load.

THE BASIC DOCUMENTS

Entry Document. The entry document (exhibit 4-28) enrolls the patient in the system. The identification section is on the upper left-hand corner. The body of this document contains information about admission conditions, further identification of the patient, his history of previous mental illness and background information. It is designed to be completed by the clerical staff and it serves two purposes. The pink copy is the data input and a white copy replaces the standard face sheet in the chart. All

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH
ENTRY DOCUMENT

EXHIBIT 4-28
(PINK)

LAST NAME 4.	REPORTING UNIT (RU) 1.	ENTRY DATE 7. MO DAY YR	DAY 8.	HOUR 9.
			1. Sun 4. Wed 7. Sat 2. Mon 5. Thur 8. Hol 3. Tue 6. Fri	1. 12Mid-4 am 4. 12Noon-4 pm 2. 4 am-8 am 5. 4pm-8pm 3. 8 am-12Noon 6. 8pm-12Mid

BIRTHDATE 5. MO DAY YR	PF NO. 6.	INITIALS 2.	SEX 3. M. Male F. Female	LEGAL STATUS 10.	FROM RU 11.	PT HIST AT RU 12. 1. New 2. Readmit	DOCUMENT STATUS 13. 1. Original 2. Correct 3. Update

IDENTIFICATION

LAST NAME 4.	FIRST NAME	MIDDLE NAME	MAIDEN NAME

STREET ADDRESS	CITY	STATE	ZIP CODE

CENSUS TRACT 14.	SOC. SEC. NO. 15.	MARITAL STATUS 16.	ETHNIC BACKGROUND 17.
		1. Never married 4. Divorced/annulled 2. Now married 5. Separated 3. Widowed 9. Unknown	1. Wh/Anglo 4. Am-Ind 7. Filipino 2. Black 5. Chinese 8. Other N-Wh 3. Wh/Latin 6. Japanese 9. Unknown

REFERRAL SOURCE 18.	TARGET GROUP 19.
1. Self,friend,family 4. Priv.MH prof 7. Other RU 10. Clergy 13. B&C/conv.hp 2. Other patient 5. N-psych phys 8. Corr.agency,court,jail 11. Comm.drug prg 14. Other 3. School 6. Priv.gen.hosp 9. Soc agency(pub/priv.) 12. OCMC(n-psych) 99. Unknown	1. Ment.disordered 4. Drug abuse 2. Ment. retarded 5. Life Crisis 3. Alcoholic

HISTORY OF PREVIOUS MENTAL ILLNESS

TIMES PREVIOUSLY HOSPITALIZED 20.	LENGTH OF STAY (TOTAL) 21.	WHERE LAST HOSPITALIZED 22.
0. None 5. Five times 1. Once 6. Six times 2. Twice 7. Seven times 3. Three times 8. Eight or more times 4. Four times 9. Unknown	0. None or N/A 5. 6 to 12 months 1. Less than 1 wk 6. 1 to 3 years 2. 1 wk to 1 mo 7. More than 3 years 3. 1 to 3 months 9. Unknown 4. 3 to 6 months	0. None or N/A 5. Other Priv. Hosp 1. OCMC 6. Other Govt. Hosp 2. Cal St. Hosp 7. Other 3. Other St. Hosp 9. Unknown 4. Priv. OC Hosp

WHEN LAST HOSPITALIZED 23.	HISTORY IN CMHS 24.	OTHER MENTAL ILLNESS TREATMENT 25.	FAMILY MENTAL ILLNESS HOSPITALIZATIONS 26.
0. None or N/A 4. 1-5 years 1. 1 day-1 mo 5. 5 yrs or more 2. 1-6 mo 9. Unknown 3. 6-12 mo	1. New patient 2. Old patient	0. None 4. Reg. team 8. Vol. agency 1. Priv MH prof 5. Alcohol team 9. Spec.School 2. N-psych phys 6. Child. Clinic 10. Other 3. OCMC 7. Comb3,4,5,6 99. Unknown	0. None 5. Uncles/Aunts 1. Parents 6. Cousins 2. Nat. siblings 7. Comb. 5,6 3. Grandparents 8. Other 4. Comb. 1,2,3 9. Unknown

BACKGROUND INFORMATION

FAMILY TYPE (CURRENT) 27.	LENGTH OF RESIDENCE OC 28.	LA/OC 29.	NO. RESIDENCE CHANGES 30.	NO. SCHOOL CHANGES 31.
1. Par/grandparents 5. Non-rel/guardian 2. Spouse/children 6. B&C/conv. home 3. Foster home 7. Alone 4. Relatives/friends 9. Unknown	1. Less than 3 months 4. 3 to 5 years 2. 3 to 12 months 5. More than 5 years 3. 1 to 3 years 9. Unknown		(LAST 5 YEARS) 0. None 8. 8 or more 1-7 Times 9. Unknown	(LAST 2 YEARS) 0. None orN/A 5. 5 or more 1-4 Times 9. Unknown

OCCUPATION 32.	SPOUSE 33.	PARENT 34.	EDUCATION 35.
0. (32)Student h.s. or below 0. (33) No spouse 1. Unskilled employees 2. Machine oper/semi-skilled employees 3. Skilled manuel employees 4. Clerical/sales/technicians/owners of little businesses 5. Admin personnel/small independent businesses/minor professionals 6. Business mgrs/medium business owners/lesser professionals 7. Executives/owners of large businesses/major professionals 9. Unknown			1. Less than 7 yrs 5. College grad 2. Partial HS 6. Grad/prof trng 3. HS graduate 7. Doctorate 4 Partial college 9. Unknown

EXPLANATION OF "OTHER" (ABOVE) ITEM #	RELIGION	AGE (YEARS)	FAMILY NO.

FINANCIAL INFORMATION

RESPONSIBLE PARTY 36.	RELATIONSHIP	FAMILY INCOME 38.
		SEE CODING MANUAL FOR CATEGORY

STREET ADDRESS 37.	CITY	ZIP	TELEPHONE NO.

EMPLOYED BY	ADDRESS	NO. DEPENDENTS 39.
		1-9 Number 0. Ten or more

INSURANCE COMPANY	POLICY NO.	MAX. MONTHLY FEE 40.

VETERAN SERIAL NO.	MEDI-CAL ELIG. DATE	

F0346-21.2

coding is on the face of the pink sheet or, if it is too voluminous to print in the space provided, it is printed on the reverse of the sheet. The second copy has the treatment consent and release of information form printed on the reverse side for chart purposes.

Financial Evaluation Document. This form (exhibit 4-29) contains all information necessary to establish the patient's account and to determine the sources of financial responsibility and his ability to pay. Furthermore, it can combine accounts of various family members and is the key to the financial ledgers and billing informations system. The evaluation document is the responsibility of the financial evaluator in the unit or in his absence, the clerk.

Evaluation Document. This document (exhibit 4-30) may be used in optional ways:

- If a patient is accepted for treatment, the lower left corner is completed with the treatment plan
- If the patient is evaluated as a step in his transfer or referral to another service unit, the lower right corner is completed

In the latter case, the services provided, the status at transition, and referral information are obtained. This document and the entry form are the only two documents submitted in the case of a brief contact. Common to both uses in the identification section, the number of the evaluator, the diagnostic impression and further background information on the patient. This form is completed by the clinical staff.

An optional extra (exhibit 4-31) is the Schedule of Recent Experience developed by Holmes and Rahe. This is a patient-completed document and is used only by those units interested in the stress indices of their new patients.

Services Rendered Document. Exhibit 4-32, crucial elements of the system, contains the treatment date, therapist identification, the type of treatment provided, the next appointment and payment received and its source. The patient's copy of this form serves as his record of treatment, his appointment slip and a receipt for any payments rendered. A second copy stays with the service unit and a third is data input for the computer. Through this form the computer not only accounts for all services rendered and all therapist time in direct service but also obtains the patient financial data so the clerical staff is relieved of a major burden. Separate versions of this document are printed for each service unit and contain the repertoir of treatment modalities unique to that wnit. However, all service modalities are carefully catalogued and categorized for comparability. Exhibit 4-33 contains a variation of the service rendered document that is used for group therapy. In this case, however, no patient copy is provided as a receipt.

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH

EXHIBIT 4-29

FINANCIAL INFORMATION DOCUMENT

LAST NAME 4.			RU 1.	EVAL. DATE 7.	8. INT TO FL 3d P CLAIM	DOC. ST. 9. 1. Original 2. Correct 3. Update
BIRTHDATE 5.	PF NO. 6.	INITIALS 2.	SEX 3. M. Male F. Female	MAP (ADJ) 10.	ADJ: W/O 11. C 2203	MMP 12.

BACKGROUND INFORMATION

RESPONSIBLE PARTY 14.			RELATIONSHIP	TELEPHONE NO.
STREET ADDRESS 15.	CITY	ZIP	HOW SUPPORTED	
PRESENT OR LAST EMPLOYER	ADDRESS		LAST DAY WORKED	
HEALTH PLAN	POLICY NO.		MEDI-CAL CLAIM NO.	
VETERAN SERIAL NO.	MEDI-CAL ELIGIBILITY DATE	SSN	MEDI-CARE CLAIM NO.	
PRIOR TREATMENT WHERE?	FROM	TO	RU	DMH FIN RU?
PRESENT S/D BAL.	MONTHLY PAYMENT	AGENCY WHERE PAYMENT MADE		

METHOD A

GROSS MONTHLY INCOME		NO. DEP. ON INC(b)
SELF		MMP (FR SCHED)
SPOUSE		MAP
OTHER		DATE
TOTAL (a)		
FIN INF PROVIDED BY (othar than pt/res. party)		
INTERVIEWED BY		

METHOD B

MONTHLY EXPENSES		GROSS MO. INC. (a)	NO. DEP. ON INC. (b)
LIVING ALLOW			
RENT OR HOUSE PMT		MMP (a-c)	MAP
AUTO EXPENSE			
MED EXPENSE			
OTHER		INTERVIEWED BY	
OTHER			
OTHER		DATE	
TOTAL MO PMT (c)			

REVIEWS

ADJUSTED BY	DATE	REASONS
REMARKS		

ACCOUNT CONSOLIDATION

	16. LAST NAME	17. BIRTHDATE	18. INIT	19. RU	20. FAM. NO.		
1.							
2.							
3.							

F0346-41

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH

EXHIBIT 4-30

EVALUATION

LAST NAME 4.	REPORTING UNIT (RU) 1.
BIRTHDATE 5. MO DAY YR	PF NO. 6.
INITIALS 2.	SEX 3. M - Male F - Female

EVALUATION DATE 7. MO DAY YR	VISIT NO. 8.	EVALUATION IMPRESSION 9.	EVALUATION BASIS 10. 1. Contact 2. Chart
DOCUMENT STATUS 11. 1. Original 2. Correct 3. Update	EVALUATOR PRO 12. IND 13.		

FAMILY BACKGROUND

FAMILY TYPE (ORIGIN) 14.	NUMBER OF NATURAL SIBLINGS 15.	NUMBER IN FAMILY 16.
1. Parents/grendparents 2. Siblings 3. Foster home 4. Relatives/friends 5. Non-relatives/guardien 6. B&C/conv. home	0. None 1-8 Number 9. Nine or more	1-8 Number 9. Nine or more

TREATMENT PLAN (If Accepted for Treatment) 17 (1).	TREATMENT CONDITIONS (If Transitioned for Treatment) 17 (2).
TREATMENT MODE Pri 18. Sec 19. Ter 20. Use 1st 2 digits of Item 13 code on Form 2) 00. None	SERVICES PROVIDED 27. 1x. PrePetit screening 2x. OP/CIC visits 3x. Cons.eval/visits 41. 1-4 hr visit 42. 4-8 hr visit 43. 8-12 hr visit 44. 12-16 hr visit 45. 16-20 hr visit 46. 20-24 hr visit. 47. 1-1½ days care 48. 1½-2 days care 49. 2-3 days care 5x. Other (x See Time Code below)
EXPECTED LENGTH Pri 21. Sec 22. Ter 23. 0. No treatment 1. Less than 5 TU's 2. 5-10 TU's 3. 10-20 TU's 4. 20-30 TU's 5. More than 30 TU's	STATUS AT TRANSITION 28. 1. Left w/o notice 2. No show 3. AMA w/o referral 4. AMA w/referral 5. Referred 6. Transferred 7. Negotiated discharge 8. Discharge w/o referral 9. Other
SRE COMPLETED 24. 1. Yes 2. No	REFERRAL OR TRANSFER 29. 0. None 1. MH prof. private 2. N-psych.priv. physician 3. OCMC (psychiatric) 4. OCMC (non-psychiatric) 5. Volunteer agency 6. Childrens clinic 7. Private hospital 8. Regional team 9. Alcoholism team 10. Corr. agency,court,jail 11. School 12. State hospital 13. Vet. hosp. 14. Spec. clinic 15. B&C/conv.home 16. Other
ASSIGNED THERAPIST Pro 25. Ind 26.	

*EXPLANATION OF "OTHER" ABOVE ITEM #	REF TO RU 30.	TRANS TO RU 31.	LEGAL STATUS 32.
x. 1. ½ hr 2. 1 hr 3. 1½ hr 4. 2-3 hr 5. 4-5 hr 6. 6-7 hr 7. 8-9 hr 8. 10-11 hr 9. 12 hr or more			

ADDITIONAL COMMENTS

EVALUATOR'S SIGNATURE

F0346-23.1

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH

EXHIBIT 4-31

SCHEDULE OF RECENT EXPERIENCE (SRE or PSQ)*

LAST NAME 4.	REPORTING UNIT (RU) 1.
BIRTHDATE 5. MO DAY YR	PF NO. 6.
INITIALS 2.	SEX 3. M - Male F - Female

Each patient is to complete, with assistance if necessary, this personal history for his OCDMH records. When completed, this form is to ba considerad Patient Confidential Information.

INSTRUCTIONS

Each item describes an event which may or may not have occurred to you. Please read each item carefully and decide whether you have had that experience within the last 2 years. If it has happened to you within, the last 2 years, check "Yes." If it has not, check "No." When in doubt, check "Yes." Do not leave any blanks. Mark firmly. Do not erase. If you change your mind, or make a mistake, circle the incorrect answer and check the correct one.

EVENTS EXPERIENCED IN LAST 2 YEARS

		YES	NO
Either a lot more or a lot less trouble with the boss.	8		
A major change in sleeping habits (sleeping a lot more or a lot less, or change in part of day when asleep).	9		
A major change in eating habits (a lot more or a lot less food intake, or very different meal hours or surroundings).	10		
A revision in your personal habits (dress, mannar, associations, etc.).	11		
A major change in your usual type and/or amount of recreation.	12		
A major change in your social activities (e.g., clubs, dancing, movies, visiting, etc.).	13		
A major change in church acitivities (e.g., a lot more or a lot less than usual).	14		
A major change in number of family-get-togethers (e.g., a lot more or a lot less than usual).	15		
A major change in financial state (e.g., a lot worse off or a lot better off than usual).	16		
In-law troubles	17		
A major change in the number of arguments with spousa (e.g., either a lot more or a lot less than usual regarding child rearing, personal habits, etc.).	18		
Sexual difficulties.	19		
Major personal injuries or illness.	20		
Loss of a close family member (other than spouse) by death.	21		
The death of spousa.	22		
The death of a close friend.	23		
Gained a new family member (e.g., through birth, adoption, oldster moving in, etc.).	24		
Major change in the health or behavior of a family member.	25		
Change in residence.	26		
Detention in jail or other institution.	27		
Found guilty of minor violations of the law (e.g., traffic tickets, jay walking, disturbing the peace, etc.).	28		

		YES	NO
A major business readjustment (e.g., merger, reorganization, bankruptcy, etc.).	29		
Got Married.	30		
Got divorced.	31		
Marital separation from your mate.	32		
Had an outstanding personal achievement.	33		
Son or daughter left home (e.g., marriage, attending collage, etc.).	34		
Retired from work.	35		
Major change in working hours or conditions.	36		
Major change in responsibilities at work (e.g., promotion, demotion, lataral transfer).	37		
Been fired from work.	38		
Major change in living conditions (building a new home, remodeling, deterioration of home or neighborhood).	39		
Wife began or ceasad working outside tha home.	40		
Took on a mortgage greater than $10,000 (e.g., purchasing a home, business, etc.).	41		
Took on a mortgage or loan less than $10,000 (e.g., purchasing a car, TV, freezer, etc.).	42		
You experienced a foreclosure on a mortgage or loan.	43		
Took a vacation.	44		
Changed to a new school.	45		
Changed to a different line of work.	46		
Began or ceased formal schooling.	47		
Had a marital reconciliation with your mate.	48		
That you had a pregnancy.	49		

*The SRE is a copywrited questionnaire; it is published in this form with permission of the authors, Thomas H. Holmes and Richard H. Rahe, University of Washington School of Medicine, Department of Psychiatry.

F0346-39

EXHIBIT 4-32

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH
SERVICES RENDERED

LAST NAME 4.	REPORTING UNIT (RU) 1.
BIRTHDATE 5. MO DAY YR	PF NO. 6.
INITIALS 2.	SEX 3. (M - Male, F - Female)

TREATMENT 7. DATE MO DAY YR	DOCUMENT STATUS 8. (1. Original, 2. Correct)
THERAPIST Pro 9.	Ind 10.
CO/ADJUNCT THERAPIST Pro 11.	Ind 12.

13. TREATMENT UNITS PROVIDED

Orientation	113		Individual Therapy (Patient) (field)	34				
Evaluation	15		Individual Therapy (Collateral) (field)	94				
Psychological Testing (Patient)	17							
Crisis Intervention	31							
Individual Therapy (Patient)	33							
Family Therapy	51							
Collateral Interview	912							
Individual Therapy (Collateral)	93							
Consultation (on behalf of patient)	97							

*3rd digit: 1. 1/2 hour 2. 1 hour 3. 1-1/2 hours 4. 2-3 hours 5. 4-5 hours 6. 6-7 hours 7.8-9 hours 8. 10-11 hours 9. 12 hours or more

NEXT APPOINTMENT

SCHEDULED NEXT OR STANDING APPOINTMENT 16.

0. No appt. 3. 3 Days 6. 6 Days 9. 3 Weeks 12. 6 Weeks 15. Other
1. 1 Day 4. 4 Days 7. 1 Week 10. 4 Weeks 13. 7 Weeks
2. 2 Days 5. 5 Days 8. 2 Weeks 11. 5 Weeks 14. 2 Months

DAY	HOUR

PAYMENT

PAYMENT RECEIVED	
DATE	SIGNATURE

F0346-26.1

EXHIBIT 4-33

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH
SERVICES RENDERED

REPORTING 1. UNIT (RU)	TREATMENT 7. DATE MO DAY YR	DOCUMENT STATUS 8.	THERAPIST	CO-THERAPIST	STANDING APPOINTMENT 16.
		1. Original 2. Correct	Pro 9.	Pro 11.	0. No appt. 4. 4 Days 8. 2 Weeks 12. 6 Weeks 1. 1 Day 5. 5 Days 9. 3 Weeks 13. 7 Weeks 2. 2 Days 6. 6 Days 10. 4 Weeks 14. 2 Mo. 3. 3 Days 7. 1 Week 11. 5 Weeks 15. Other
			Ind 10.	Ind 12.	

4. PATIENT LAST NAME	2. INITIALS	3. SEX	5. BIRTHDATE	6. PF NUMBER	GROUP MEMBER

13. TREATMENT UNITS PROVIDED

Couples Group Therapy	653		Group with Parents	813		NO. IN GROUP (ACTUAL) 14.	
Adolescent Group	732		Intensive Care Clinic (parents)	833		NO. IN GROUP (SCHEDULED) 15.	
Childrens Group	752					1. 2-6 3. 11-15 2. 7-10 4. 15 or more	
Intensive Care Clinic (child)	773						

*3rd digit: 1. 1/2 hour 2. 1 hour 3. 1-1/2 hours 4. 2-3 hours 5. 4-5 hours 6. 6-7 hours 7. 8-9 hours 8. 10-11 hours 9. 12 hours or more

F0346-27.2

Discharge Document. Exhibit 4-34 is the responsibility of the therapist and it indicates the conditions of discharge, the therapist's estimate of the patient's adjustment and his opinion as to the necessary support systems in the community. It contains the diagnosis and, like the evaluation document, has a second sheet which replaces the standard discharge form in the clinical chart. On the chart forms for both the evaluation and the discharge documents there is an additional space for written comments that are not coded into the management information system.

Indirect Services Rendered to the Community. Exhibit 4-35 is the indirect services document. This document contributes to a separate file on indirect services which produces sections of the management, statistical, and financial reports. However, this is a separate system in the computer since it is not linked to patient service.

Manual. There are instructions for completing all of these documents on the forms themselves; however, there is a detailed coding manual elaborating the definitions and procedures which is made available to all staff. Each document has a separate manual but after the therapist or clerk has read the manual one time the information on the forms should be adequate to maintain a reliable data input.

MANAGEMENT REPORTS

Now detailed attention is focused on the reports. The exception reports allow a monitor of the entire process by identifying rejected documents because vital information is missing or in error and identify and list errors that are not serious enough to reject the document but do leave gaps in the data. Such control procedures are designed to function at all viatal junctures of the data processing routine. The function of the locator file and annual data base print out were discussed earlier.

A management report is produced for each reporting unit in the system and contains the information which we believe the manager of every unit should have available immediately. This information is printed out to meet all of his reporting requirements to the state and local advisory bodies. (All required reports are abstracted from the data centrally to ease the burden on unit staff members).

A quick review of exhibit 4-36 will show there are data concerning caseloads, admissions, discharges, characteristics of admissions and discharges, treatment units delivered by both uncorrected, (e.g., patient days or visits,) and corrected (e.g., an inpatient day, a partial hospital day of specified length or one hour of contact by an outpatient). The hours spent are broken down by direct service by professions and by individuals as well as indirect services by professions. Entry times are cross tabulated by day of the week and hour of the day which is particularly relevant for services with extended hours trying to deploy their staff most effectively. The monitoring aids are important aspects of the management report. They list those patients admitted who are not evaluated, those patients whose treatment length exceeds the plan on the evaluation form, those patients whose treatment exceeds a criteria length established by diagnosis by the unit managers, a roster of patients referred to another unit but who did not arrive there, a list of cases which are called delinquent but in fact means cases who did not keep appointments nor keep new appointments within a specified time period, and a list of all open cases in the unit. The latter is a housekeeping list which has multiple applications by the units.

COUNTY OF ORANGE
DEPARTMENT OF MENTAL HEALTH

EXHIBIT 4-34

DISCHARGE

LAST NAME 4.	REPORTING UNIT (RU) 1.	EXIT DATE 7. MO DAY YR	FINAL DIAGNOSIS 8.	LEGAL STATUS 9.	EVALUATION BASIS 10.
					1. Contact 2. Chart

BIRTHDATE 5. MO DAY YR	PF NO. 6.	INITIALS 2.	SEX 3.	DOCUMENT STATUS 11.	THERAPIST Pro 12.	Ind. 13
			M - Male F - Female	1. Original 2. Correct		

DISCHARGE CONDITIONS

STATUS AT TERMINATION 14.	REFERRAL 15.			REF TO RU 16.
1. Left w/o notice 2. No show 3. AMA w/o referral 4. AMA w/referral 5. Referred 6. Transferred 7. Negotiated discharge 8. Discharge w/o referral 9. Other	0. None 1. MH prof. private 2. N-psych.private physician 3. OCMC (psychiatric) 4. OCMC (non-psychiatric)	5. Volunteer agency 6. Childrens Clinic 7. Private Hospital 8. Regional team 9. Alcoholism team 10. Corr. agency,court,jail	11. School 12. State Hospital 13. Vet. Hosp. 14. Spec. clinic 15. B&C/conv. home *16 Other	TRANS TO RU 17.

ADJUSTMENT

SOCIAL 18.	FAMILY 19.	WORK 20.	SELF-PERCEIVED 21.
1. Worse 2. Unchanged 3. Improved	1. Worse 2. Unchanged 3. Improved	1. Worse 2. Unchanged 3. Improved	1. Worse 2. Unchanged 3. Improved

PATIENT'S SUPPORT SYSTEM

STRUCTURAL 22.			IDEATIONAL 23.		
0. None-apparent 1. Church	2. Social group 3. Family 4. Peer Group	5. Work Setting 6. Other 9. Unknown	0. None apparent 1. Economic	2. Religious 3. Hedonistic 4. Social 5. Political	6. Moral 7. Other 9. Unknown

* EXPLANATION OF "OTHER" ABOVE ITEM #

DISCHARGE SUMMARY	
	THERAPIST 'S SIGNATURE

F 0346-25.2

EXHIBIT 4-35

County of Orange
Department of Mental Health

INDIRECT SERVICES DOCUMENT

1. RU	2. DATE MO DA YR	CONSULTANT Prof 3	Ind 4	EXP. SESSIONS 7	DOC S. 8
		CO/ADJUNCT CONSULTANT Prof 5	Ind 6	1. 1 4. 11–15 7. Not Det. 2. 2–5 5. 16–20 3. 6–10 6. Ongg	1. Origin 2. Correct

INDIRECT SERVICES RENDERED

CONTACT 9	NO. CONTACTED 10	CONSULTEE IDENTIFIER 11	CONS. TYPE 12
1. Phone 2. Pers (Office) 3. Pers (field)	1. 1 4. 11–15 7. 36–50 2. 2–5 5. 16–25 8. 50 + 3. 6–10 6. 26–35	1. MH Pro 4. N-Psy Med 7. Lay 0. Oth 2. N-MH Pro 5. Ed/Sch Coun 8. Adm 3. Clergy 6. Corr. O 9. Volntr	1. Primory 2. Secondory 3. Tertiary

CONSULTATION METHOD 13	RESULT 14	NO. SESS	CONSULTATION HRS 16
1. Clt–cen cose 5. Com skll 9. Sup NMH 2. Ag–cen cose 6. Lec/Cnsel 10. DMH Or 3. Pg–cen odm 7. Org mt 11. Foll-up 4. Ag–cen odm 8. Demon 12. Other	1. No ropport 5. Super 2. Poor 3. Averoge 4. Good	15.	1. ½ hr 5. 4–5 9. 12 + 2. 1 hr 6. 6–7 3. 1½ hr 7. 8–9 4. 2–3 8. 10–11

CONSULTEE ORGANIZATION

TYPE OF ORGANIZATION 17	ORGANIZATION SIZE 18	ORGANIZATION AGE 19	LOCATION 20
1. Spec pur 6. Gen hos 12. Intermed care fac 2. Civic 7. DMH unit 13. Bd/Care 3. School 8. Corr ag 14. Fam care 4. MH Ag-prvt 9. Soc ag 15. Children - Youth Prog 5. Med/Heolth foc 10. Relig 16. Other Comm Prog 11. Com drg prog 17. Other	1. 1–10 6. 51–60 2. 11–20 7. 61–70 3. 21–30 8. Over 70 4. 31–40 9. Unknown 5. 41–50	1. New 2. 0–1 yr 3. 2–4 yr 4. 5–9 yr 5. Over 10	See back of form

TARGET POPULATION

ETHNIC BACKGROUND 21	M. H. TARGET GROUP 22	AGE GROUP 23
1. Wh/Ang 5. Chinese 9. Unk 2. Black 6. Joponese 3. Wh/Lat 7. Filipno 4. Am-Ind 8. Combin	1. Ment. dis 5. Life crisis 2. Ment. ret 6. 3. Alcohol 7. 4. Dr. abuse 8. Combinations	1. 0–13 5. 0–18 2. 14–18 6. 19 + 3. 19–64 7. All 4. 65 +

EXPLANATION OF "OTHER" (above)
Item No.

F0346-44.1

EXHIBIT 4-36

Contents of Management Reports

I. WORK LOAD

1. Beginning Case load
2. Admissions
   a. New
   b. Readmit
   c. Total
3. Discharges
   a. Transitioned
   b. Discharged
   c. Total
4. Closing case Load
5. Admission Characteristics
   a. By ethnic background
   b. By Statistical Areas
   c. By Legal status
6. Discharge Characteristics
   a. By terminal status
   b. By Legal status
7. TU's Delivered (uncorrected)
   a. Patient days by target group and 3 age groups
   b. Partial hospitalization days by target group and 3 age groups
   c. Outpatient visits by target group and 3 age groups
8. Standard TU's Delivered
   a. Patient days
   b. Partial hospitalization days
   c. Outpatient visits
      1) By type
      2) By group
9. Professional Hours in Direct Service
   a. By individual
   b. By Profession
10. Cross-tab of Entry Times by Day and Hour

II. MONITORING AIDS

1. Roster of Admissions (Form 1) without Evaluation (Form 3)
2. Roster of Patients Whose Treatment Length Exceeds Plan
3. Roster of Patients Whose Treatment Length Exceeds Criteria
4. Roster of Patients Referred to RU's but Not Yet Admitted
5. Roster of Delinquent Cases
6. Roster of Open Case Load

Patient ledger. On exhibit 4-37 summary lines are recorded for the status of the account as well as a listing of all financial transactions for services rendered and payments. Adjustments are made according to ability to pay at the end of each month and from the ledger data a bill is produced which spells out the cost of services, the adjustments, and the amount due. Bills are also produced six working days after the end of the month.

Financial Summaries by Reporting Unit by Patient. While packing a great deal of data in a small space (exhibit 4-38), the total lines can reveal a great deal about sources of revenue, write-offs, outstanding balances, etc. (The system is greatly complicated by the fact that the California uniform method of determining ability to pay is based upon a year's liability and determinations are made concerning what a patient can pay. He must pay that amount for a year regardless of the duration or cost of his service until either the service is paid for or his annual liability has expired.)

The data system also produces a summary of the revenue collection activity of the entire department by reporting unit monthly.

Statistical Reports. These reports are perhaps the most fascinating aspect of the Orange County management information system. Because the data processor has a highly flexible general purpose report generator, cross tabulations of virtually any five variables in the system are possible as long as they are presented in logical order. Currently thirty such cross tabulations monthly are produced as portrayed by exhibit 4-39. Exhibit 4-40 is an example of one particular cross tabulation to illustrate the format. These data are returned in usable form to the unit managers within six working days. This is an extremely important requirement since managers are always much more interested in current data than historical material. From a revenue standpoint, bills that are sent out over a month late are less collectible. A rapid feedback of all data to staff has greatly enhanced their interest and cooperation in the system and timely bills should stimulate collections.

Availability of Special Reports. The data services contract includes the cost for special reports. These plus the quarterly statistical reports obtained routinely but more detailed reports allow an amazing flexibility to generate and test hypotheses rapidly and with reasonable reliability.

COSTS

In developing any management information system costs must not be inappropriate to the size of the human service program being served. Because a management information system must be tailored to program needs, some may require electronic data processing but many others may require only a simple card sorter or a totally manual system. In any case careful study of the volume of data and the need for flexibility are required before deciding on the most effective processing mechanism.

Cost must be broken down into theree general categories:

- Design of the system
- Implementation of the system
- Routine production runs and maintenance

EXHIBIT 4-37

Patient Ledger

BRAMSON CD
04-16-47 1743581 M

CHARLES D BRAMSON
1772 QUEENS WREATH
IRVINE CA 92664

ENT 06-12-71 REEVAL 06-01-72
EVF 07-12-71 MMP 20 MAP 240
EVF 03-14-72 MMP 10 MAP 210

FAM NO

RU	AM	A/S	BEGBAL	CHG	TOP	FEA	TADJ	ENDBAL	OPC	PPD	AA	PPND	PP (AY)
6409	1	32	0	75	0	0	0	75	0	10	1	65	0
6409	13		50		10	0	0	40	40	0		0	120

6409	07-01-72	5001	BEGIN BALANCE PY					40.00
	07-01-72	5004	BEGIN BALANCE AY					75.00
	07-03-72	0332	IND THER	(2/1)	26.00			
	07-08-72	0613	GRP THER	(3/2)	10.00			
	07-10-72	0332	IND THER	(2/1)	26.00			
	07-12-72	2013	PAT PAY			10.00		
	07-15-72	0613	GRP THER	(3/2)	10.00			
	07-19-72	0332	IND THER	(2/1)	26.00			
	07-22-72	0613	GRP THER	(3/2)	10.00			
	07-26-72	0332	IND THER	(2/1)	26.00			
	07-29-72	0613	GRP THER	(3/2)	10.00			
	07-30-72	2021	3PP: PRIV INS			30.00		
	07-30-72	4023	INS CL FILED	90.00				
	07-31-72	2101	FEA PY			10.00		
	07-31-72	2103	FEA AY			9.00		
	07-31-72	7001	ENDING BALANCE PY					0.00
	07-31-72	7004	ENDING BALANCE AY					200.00

RU	AM	A/S	BEGBAL	CHG	TOP	FEA	TADJ	ENDBAL	OPC	PPD	AA	PPND	PP (AY)
6409	2	32	70	144	10	9	9	200	90	10	1	110	10
6409	14		40		30	10	10	0				1	120

6409	08-01-72	5004	BEGIN BALANCE AY					200.00
6409	08-05-72	0613	GRP THER	(3/2)	10.00			
6408	08-01-72	0613	GRP THER	(3/4)	10.00			
6409	08-15-72	2303	ADJ: RU TRANSFER			210.00		
6408	08-15-72	3303	ADJ: RU TRANSFER		210.00			
6408	08-17-72	0332	IND THER	(1/2)	36.00			
6408	08-25-72	0632	COUPLES THER	(2/4)	13.00			
6408	08-25-72	2013	PAT PAY			10.00		
6408	08-30-72	4023	INS CL FILED	30.00				
6408	08-31-72	7004	ENDING BALANCE AY					220.00

RU	AM	A/S	BEGBAL	CHG	TOP	FEA	TADJ	ENDBAL	OPC	PPD	AA	PPND	PP (AY)
6409	3	23	200	10	0	0	0	0	0	0		0	0
6408	3	13	0	59	10	39	D171	220	120	10	1	90	20

Ru Summary by Patient (CURRENT MONTH)
RU 6409 JULY 1972

PAT. IDENTIFIER	A/S	MO AY	BEG. BAL	CHGS	3D PARTY PAY M/CAL	OTHR	TOT	PAT PAY	TOT PAY	ADJ FEA	OTHR	END BAL	O CLAIMS PM	CM	PMLR	PP DUE	ACCT AGE	PP ND
Olson	11	1	0	105	0	0	0	0	0	0	0	105	0	0	240	20	1	85
12-13-50 RI 20																		
Peterson	32	1	0	75	0	0	0	0	0	0	0	75	0	0	120	10	1	65
11-05-45 GB 10		13	50		0	0	0	10	10	0	0	40	40 2		0	0		0
Smith	24	6	150	100	0	0	0	30	30	0	230	3 0	0	0	180	0		0
07-30-42 AF 30																		
Trainor	26	3	300	125	0	100 2	100	50	150	0	275	4 0	0	0	500	0		0
10-12-44 BB 50 101																		
Williams	32	5	0	115	115	0	115	0	115	0	0	0	0	0	120	0	1	0
01-07-33- LM 10																		
Last Name			5003	1003	2033	20x3	2083	2013	2093	2103	2y03	7003		4082	4015	7013		7015
BD Init MMP Fam No.			5001			20x1	2081	2011	2091	2101	2y01	7006	4031		4011	7011		
Yates	16	7	100	50	0	0	0	20	20	215	D275	4 190	50 2	40 2	100	20	1	80
05-28-28 PR 20 107																		
SUBTOTAL			600	570	115	100 2	215	110	325	215	0 2	410	90 2	40 2		50	1	230
						0 4					230 3		0 4	0 4		0	2	
						0 5					0 4		0 5	0 5		0	3	
						0 6					0 5		0 6	0 6		0	4	
						0 7					230 T		0 7	0 7		50	T	
						100 T							90 T	40 T				
FATALS IN JULY																		
Form 2				270		0	0	50	50									
Form 6					100													
GRAND TOTAL			600	840	215	100 2	215	160	375	215	230 3	410	90 2	40 2		50	1	230

EXHIBIT 4-39

Specifications for Monthly Statistical Report

a. FIRST-POSITION SORT: NO. PATIENTS ENTERING SYSTEM [VARIABLE 1]

TAB NO.	2D-POS. SORT	3D-POS. SORT	4TH-POS. SORT	5TH-POS. SORT
1	RU	FT (C)	SEI	Age
2	RU	SEI	Eth. Bkgrd.	Eval. Impr.
3	RU	Ref. S	FT (C)	Sex
4	RU	O. Mo. Ind	R. Stab. Ind	Eth. Bkgrd.
5	RU	FT (C)	FT (O)	Eval. Impr.
6	RU	Ref. S	SEI	Sex
7	RU	SEI	Leg. S. En	Cen. Trct.
8	RU	Ref. S	Eval. Impr.	Age
9	R. Stab. Ind	PMI Ind	Ref. So	Eval. Impr.
10	SEI	Eth. Bkgrd.	Age	Cen. Trct.
11	PMI Ind	Eth. Bkgrd.	Age	Cen. Trct.
12	O. Mo. Ind	Eth. Bgrd.	Age	Cen. Trct.

b. FIRST-POSITION SORT: NO. PATIENTS EXITING SYSTEM [VARIABLE 4]

13	RU	Fin. Diag.	Prev. Hosp	Pf No.
14	RU	SEI	Fin. Diag.	St. at Term
15	RU	PMI Ind	Fin. Diag.	St. at Term
16	RU	Fin. Diag.	St. at Term	Age
17	RU	St. at Term	P-T A Ind	Dis. TU's
18	RU	St. at Term	P-T A Ind	Sup. Sys (S)
19	RU	Fin. Diag.	P-T A Ind	Dis. TU's
20	Fin. Diag.	St. at Term	Sup. Sys (S)	Sup. Sys (I)
21	RU	Ref. to	Eth. Bkgrd	Cen. Trct.
22	RU	Ass. Ther (P)	Eth. Bkgrd	SEI
23	P-T A Ind	Tr. Ther (P)	Eth. Bkgrd	Sex

c. FIRST-POSITION SORT: PROF. HOURS IN DIRECT SERVICE [VARIABLE 5]

24	RU	Eth. Bkgrd	Tr. Ther (P)	Tr. Ther (I)
25	RU	SEI	Tr. Ther (P)	Tr. Ther (I)
26	RU	Eval. Impr.	Tr. Ther (P)	Tr. Ther (I)

d. FIRST-POSITION SORT: PATIENTS IN DIRECT SERVICE [VARIABLE 2]

27	RU	Eval. Impr.	Age	STU's Del.
28	RU	Eval. Impr.	SEI	STU's Del.
29	RU	Eval. Impr.	FT (C)	STU's Del.
30	RU	Eval. Impr.	Cen. Trct.	STU's Del.

EXHIBIT 4-40

Orange County Community Mental Health Services

A Statistical Report for JUNE 1972

TABULATION NUMBER 27 TREATMENT

RU	NO	EVL IMP(DSM)	NO	AGE	NO	STANDARD TU DELIVERED DISTRIBUTION 0	-02	-04	-06	-08	-11	-14	-17	-20	-23	-26	-29	30+
4398	498																	
		300.4	1															
				25-29	1	1												
		301	2															
				18-19	1	1												
				20-21	1		1											
		304.0-.1	262															
				15-16	1						1							
				18-19	4	4												
				20-21	26	22		2					2					
				22-24	62	42	1	12			5		2					
				25-29	66	36		10	1	1	4		14					
				30-34	58	17		13			7	1	20					
				35-39	25	8		6			7		4					
				40-44	18	5		5			1		7					
				45-49	2								2					
		307	16															
				17	1		1											
				18-19	2		1	1										
				22-24	1			1										
				25-29	4	1		1	1		1							
				30-34	3	1	1		1									
				35-39	2				2									
				40-44	1		1											
				45-49	2		1		1									
		316	1															
				55-59	1	1												
		319	2															
				17	1		1											
				22-24	1		1											
		UNKNOWN	214															
				00-04	2	2												
				10-12	1	1												
				15-16	6	5	1											
				17	4	3		1										
				18-19	14	13	1											
				20-21	25	22	2	1										
				22-24	41	36	4				1							
				25-29	51	45	6											
				30-34	32	29		2		1								
				35-39	12	11							1					
				40-44	13	13												
				45-49	5	4		1										
				50-54	7	6		1										
				UNKWN	1	1												
				COLUMN TOTALS		330	23	57	6	2	27	1	52					

The development cost which led to the point of producing reports and included the portion of the contract that covered initial programming costs was approximately $31,500. This includes $22,000 in staff time, and $9,500 in programing cost. Data processing costs for the initial year of the contract were approximately $42,000 and for the present fiscal year (the second year of the system) the total cost is approximately $70,000 for data processing. The increased cost is largely because of an increased volume of services, plus the modifications of the system to handle indirect services and direct billing.

As a direct result of the implementation of the management information system, two clerks were added and a third is planned. They work in the central office and edit the input documents and reduce the exception lists. They are the primary persons responsible for communicating with the entire clerical staff concerning the management information system. In addition a research analyst, a sociologist, oversees the system at the present time and at the same time is pursuing some sociological evaluations of the delivery of mental health services in Orange County using data from the management information system. Plans include the addition of one statistical analyst to the staff to assist in the data reduction from the statistical reports. Estimated additional staff costs are a total of $40,000. As a comparison, the gross budget for the Orange County Department of Mental Health is approximately 11 million dollars for local programs (not including the State hospital bill). The MIS costs are 1 percent of the gross budget--a reasonable relationship considering the magnitude of the system, its flexibility and the value to the department.

Elpers and Chapman, op. cit., 1973 (see chapter 1 references).

Kliewer, Dean, "An Event Monitoring System for the Comprehensive Community Mental Health Center." Prairie View Community Mental Health Center, Newton, Kansas, 1973.

Nelson, op. cit., 1973 (see chapter 3 references).

Sherman, Robert, "Experience with Random Moment Staff Activity Studies." Hennepin County Community Mental Health Center, Minneapolis, Minnesota, 1972.

VanHoudnos, Harry M., "An Automated Community Mental Health Information System." Adolf Meyer Zone Center, Decatur, Illinois, 1972.

Winters, Billy R., "A Working Example of an IMIS." Jefferson County Mental Health Center, Inc., Arvada, Colorado, 1973.

Chapter 5

COST-FINDING/RATE-SETTING SUBSYSTEMS

Cost-finding is a method of identifying costs (direct and indirect) in individual cost centers and allocating all costs to rendered services. Traditionally accountants trace costs to revenue producing centers or to final producing centers (to use the term coined by Sorensen and Phipps (1972) for revenue producing centers in CMHCs.) Rate-setting involves analysis of costs identified with final producing centers to establish charging and billing rates.

In the progression of designing and implementing IMIS subsystems, the accounting and statistical subsystems must be functioning before cost-finding/rate-setting. The integration of subsystems into a management information system begins to take on substance as the design of a cost-finding/rate-setting subsystem progresses. Both accounting and statistical information are woven together in isolating costs by unit of service. This chapter reviews the objectives of cost-finding and rate-setting and the details of two operating examples of cost-finding systems--one manual, small-center approach and one computer-based, statewide approach.

The objectives of cost-finding as outlined by Sorensen and Phipps (1972, pp. 2.2-2.7) are:

- Determination of rates for services
- Negotiation with third-party payers
- Information for funding agencies and other external groups
- Information for managerial analysis.

Determination of Rates for Services. The degree of emphasis placed on collections for services varied widely among the many community mental health centers in the United States. At many centers a very intensive effort is made to collect a very high percentage of the expenses incurred for patient services. In other centers there is very little effort expended to make such collections. As the expense of services increases and availability of general public funds decreases, the need to recover a higher proportion of the expenses from patients and third-party payors becomes increasingly important.

Because of the diversity of services rendered by all centers, frequency of visits or patient contacts, duration and intensity of treatment to various patient group and individual therapy sessions, and the many other variables present, a system for determining patient charges based on averages for most patients (e.g., average cost per patient day) is unsatisfactory. Some types of service such as inpatient and partial hospitalization might rely heavily on average cost for the portion of service cost for the usual hospital facilities including room occupancy, meals, laundry, and other housekeeping items, and nursing care because these may be relatively uniform for all patients; on the other hand, the

amount of facilities and support services used in outpatient are different and should be accounted for separately. Other expenses such as the direct professional services, pharmacy, x-ray, physical or occupational therapy would probably vary considerably and therefore should not be based on averages tied to "patient day" or "patient visit." All special services (including direct professional services) should be accounted for and charged separately.

Negotiation with third-party payors. As the expense of medical care has increased, several third-party payors have made revisions in their contracts to increase the coverage of mental health services and, at the same time, have refused to pay for certain patient charges not covered by their contracts. They have also increased their auditing procedures to determine which charges are being buried in overall or average rates being charged patients, especially those which are not--in their judgment--properly charged. As this trend continues, the individual center will need to have accurate records to prove the validity of charges made to each patient. Direct services offer little problem if adequate records are maintained, but the center must also be able to recover the cost of indirect service as well. This is where a systematic and logical cost-finding methodology becomes imperative if the center expects to recover such charges. The system must be designed to eliminate duplications or omissions and to distribute all costs fairly. While there is not an absolutely accurate way to distribute indirect costs, nonetheless, there are methods. . . that do distribute fairly such costs. If the center is able to accomplish that fair distribution, there should be little argument with third-party payors.

Information for funding agencies and other external groups. So long as a significant portion of a center's total revenues come from public funds--no matter whether from Federal, State, or local sources--there will be a need to account to the funding agencies for expenses by whatever break-downs are requested, especially on the cost of various treatment programs. Usually funding agencies are not unreasonable when they ask for valid information about the costs of various treatment programs; the request appears unreasonable often because the center has a poor or undeveloped management information system.

Some mental health program costs have been called into question in recent years because the information furnished to funding agencies has been based on averages. In one agency, for example, as the type of treatment changed from purely custodial care to intensive therapy the expense information furnished led to misleading interpretations; while the daily population had decreased by nearly 80%, the total expense of treatment had more than tripled. The error was in the way the population was related to the type of care and treatment rendered. Treatment modalities vary widely from center to center, as some centers favor the use of high-cost intensive therapy, with a consequent high-turnover in the patient population while

others use a longer term approach with lower cost per patient for a given time period and a much lower patient load. Such differences make comparisons of cost per patient day a meaningless exercise. Because there is not any unanimity of opinion as to the most effective type of program and when the treatment differs, costs are bound to be unequal if computed on averages. Perhaps from the vantage point of several years experience and good records both as to costs, on the one hand, and benefits obtained by the population served on the other, some determination is possible as to the most effective treatment modality but unless good records are kept about both elements the answer may never be clearly identified.

Information for managerial analysis. While the need to furnish accurate and meaningful cost information to patients, third party payors, and funding agencies is becoming increasingly important, usually there is minimal opportunity for any of those groups to directly change the expenditure patterns of the center. The specifics of this challenge are usually left to the management of the individual center although some funding sources may think they can and should influence the expenditure patterns of centers. This only highlights the information needs of management.

Rarely is it possible to make good decisions intuitively over an extended period of time. Better decisions should result from better information, but the great opposing forces in gathering information for decision making are accuracy and timeliness. If information is delayed too long in reaching the decision maker, for the sake of greater accuracy, much of its usefulness will have been lost before it reaches the appropriate person. Yet decisions based on inaccurate or misleading information can be extremely harmful. The design of a regular reporting system is important so that information flows smoothly and naturally to the appropriate decision makers in a timely fashion. Even with smooth and timely reports to appropriate personnel, ineffective decisions may still result if the person who receives the information is unable because of his training or lack of time to study the information to act upon the information presented to him. There is a real distinction between information and communication, and therefore, . . . the information /should be tailored/ to the user's needs and abilities.

One especially useful managerial application of cost-finding flows from a comparison of the revenue generated by the service with the total cost of operating the service. Management can identify whether or not the service is producing a net income or requiring a subsidy. From this type of analysis, meaningful adjustments to the rate structure may be achieved as well as evaluating the overall financial desirability of the specific service (however, the important question about overall expense behavior when adding or dropping a service has been reserved for . . . /another chapter/).

A good budgetary system will also fix responsibility and authority for the control of costs and enable the management to assess the

effectiveness of the performance of individuals. Each center should have a budget to control expenditures and frequent meaningful comparisons against the budget to ensure performance of the responsible managers and department heads. Cost-finding is useful in rate-setting, negotiation and evaluating the overall financial aspects of a specific service but it is not a substitute for a budgetary control system which provides control over and evaluation of specific individuals responsible for these services.

Thomas C. Burke (1973) confirms the need for integrated accounting and statisical subsystems to support a workable cost-finding/rate-setting subsystem. By describing the manually operated cost-finding/rate-setting subsystem used in Las Vegas Mental Health Center, Burke identifies some of the key connections between the two subsystems.

Subsystems. The system evolved over a two year period based on past and upgraded internal and external information requirements. Because the data necessary to complete the NIMH annual inventory was both fragmentary and unavailable, a data collection system measuring professional staff members time allocations by discipline in program areas by number of clients was instituted. Exhibit 5-1 (called the "green sheet"), is the MIS backbone and is collected daily at the center. Tabulation of data is accomplished monthly by the secretarial staff. Statistical data tabulated from exhibit 5-1 concerning patient data and professional time allocation are tabulated monthly and presented on exhibit 5-2 to the administrator. Each professional staff is listed along with activity for the month. This serves as a graphic management report, grouping like disciplines and activities by staff on a single report. To insure credibility of activities listed these figures are occasionally compared with data from the Intake Secretary concerning staff activity. Currently, only minor variances between staff listed activity and Intake Secretary staff activity occur.

A monthly recap sheet of professional time allocation (exhibit 5-3) is prepared and forwarded to the business office. These forms are tabulated, usually every 6 months, to form the basis of cost-finding and rate-setting for professional program costs. Tabulation of outpatient and inpatient statistical data, again on a six months basis, provides the basis for amount of service rendered by each program. The inpatient data is collected via a daily census report sent to the business office each morning. Similarly, activity in each separate program at the center is collected and tabulated. Accounting data are collected by program when salaries and invoices are paid. The balance of the discussion (exhibit 5-4) is a step-by-step presentation of the procedures used to perform the cost-finding and develop cost-based rates (exhibit 5-5 through 5-11).

In contrast to a manual cost-finding system for a single center is the statewide system presented by Ernst & Ernst of Louisville, Kentucky

EXHIBIT 5-1 - STAFF ACTIVITY FORM

NAME:_____ DATE:_____

Discipline: Psychiatrist ( ) Psychologist ( ) Social Worker ( ) Other ( )

CODE #	SERVICE	HOURS	# OF PATIENTS
600	ADULT IN-PATIENT		
	602.1 Evaluation	_____	_____
	603.1 Individual Therapy	_____	_____
	603.2 Group Therapy.....(No. of Sessions_____)	_____	_____
	603.3 Family Therapy.....(No. of Sessions_____)	_____	_____
	603.4 Activities Therapy.....(No. of Sessions_____)	_____	_____
	607 In-Service Training +(List Source on Back)	_____	_____
	608 Supportive Services	_____	_____
	609 Staff Meeting	_____	_____
610	ADOLESCENT IN-PATIENT		
	612.1 Evaluation	_____	_____
	613.1 Individual Therapy	_____	_____
	613.2 Group Therapy.....(No. of Sessions_____)	_____	_____
	613.3 Family Therapy.....(No. of Sessions_____)	_____	_____
	613.4 Activities Therapy.....(No. of Sessions_____)	_____	_____
	614 Day Care	_____	_____
	617 In-Service Training +(List Source on Back)	_____	
	618 Supportive Services	_____	
	619 Staff Meeting	_____	
620	ADULT SERVICES		
	621.1 Intake Contacts - New	_____	_____
	621.2 Intake Contacts - Other	_____	_____
	622.1 Evaluation	_____	_____
	622.2 Medication	_____	_____
	623.1 Individual Therapy	_____	_____
	623.2 Group Therapy	_____	_____
	623.3 Family Therapy.....(No. of Sessions_____)	_____	_____
	623.4 Activities Therapy.....(No. of Sessions_____)	_____	_____
	627 In Service Training +(List Source on Back)	_____	_____
	628 Supportive Services	_____	
	629 Staff Meeting	_____	
630	DAY CARE		
	632.1 Evaluation	_____	_____
	633.1 Individual Therapy	_____	_____
	633.2 Group Therapy.....(No. of Sessions_____)	_____	_____
	633.3 Family Therapy.....(No. of Sessions_____)	_____	_____
	633.4 Activities Therapy.....(No. of Sessions_____)	_____	_____
	637 In-Service Training +(List Source on Back)	_____	_____
	638 Supportive Services	_____	
	639 Staff Meeting	_____	
640	CHILDRENS SERVICE		
	641.1 Intake Contacts - New	_____	_____
	641.2 Intake Contacts - Other	_____	_____
	642.1 Evaluation	_____	_____
	643.1 Individual Therapy	_____	_____
	643.2 Group Therapy.....(No. of Sessions_____)	_____	_____
	643.3 Family Therapy.....(No. of Sessions_____)	_____	_____
	643.3 Activities Therapy.....(No. of Sessions_____)	_____	_____
	645 Parent Conferences.....(No. of Sessions_____)	_____	_____
	646 Educational Activities	_____	_____
	647 In-Service Training +(List Source on Back)	_____	_____
	648 Supportive Services	_____	_____
	649 Staff Meeting	_____	_____

EXHIBIT 5-1 (Continued)

CODE #	SERVICE	HOURS	# OF PATIENTS
650	EMERGENCY		
	650.1 Face-to-Face Service		
	650.2 Telephone Service		
	657 In-Service Training +(List Source on Back)		
660	CONSULTATION & EDUCATION		# OF AGENCIES*
	660.3 Consultation-Case Oriented		
	660.4 Consultation-Program Oriented		
	660.5 Public Information-Education		
	660.6 Other Training & Education		
	660.7 Community Activities, Meetings, Conferences		
	660.8 In-Service Training		
	668 Supportive Services		
	669 Staff Meeting		
			# OF PATIENTS
670	SATELLITE CLINIC		
	671.1 Intake Contacts - New		
	671.2 Intake Contacts - Other		
	672.1 Evaluation		
	672.2 Medication		
	673.1 Individual Therapy		
	673.2 Group Therapy.....(No. of Sessions____)		
	673.3 Family Therapy.....(No. of Sessions____)		
	673.4 Activities Therapy.....(No. of Sessions____)		
	674 Day Care		
	677 In-Service Training +(List Source on Back)		
	678 Supportive Services		
	679 Staff Meeting		
901	Supervision or Administration of the _____ Service		
902	General Staff Meeting		
	Center Committee Meeting		
903	LEAVE: Annual ( ) Administrative ( ) Sick ( ) Compensatory ( ) Holiday ( ) (Check Appropriate Leave Status)		
	TOTAL HOURS:		

+ List In-Service Training Source

Code #	Source

*List Agency in 660 Code

Code #	Agency

Number of Appointments Scheduled: _____
Number of Appointment Cancellations: _____
Number of No/Show Appointments: _____

SNC:89
Rev. 4-2-73

EXHIBIT 5-2
Monthly Tabulation of Exhibit 5-1

	#1		2		3		4		5		6		7			10		11		12		13	
	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s	Hrs.	#'s
600 ADULT I-P							25	211	2	2	1½	2	121	134	11	25	7						
602.1 Evaluation																							
603.1 Ind. Ther.									2	2	1½	2	71	134									
603.2 Gp. Ther.							2½	197															
603.3 Fam. Ther.																							
603.4 Act. Ther.							½	14							9½								
607 I-S Trng.													1				4						
608 Sup. Serv.													26		!		35						
609 Stf. Mtng.													23		1		22½						
610 ADOL. I-P				1½	5	13¼	94								2		32½	44		1			
612.1 Evaluation																	2	10					
613.1 Ind. Ther.						1	1										4	34					
613.2 Gp. Ther.				1½	5	3	94																
613.4 Fam. Ther.				1½	5																		
614 Day Care																							
					5																		
.. Stf. Mtng.																							
910 SUP. OF SERV.																						142½	
902 Cen. Stf. Mtng.	10½	5	4	3	3	5½	2	7	4		3½	6				;	4					1	
Cntr. Stf. Mtng	1½		3½				3	4½				3				1½							
903 LEAVE	36	28	25½	12	21½	12	8	8	8		48	17				;	26½	32				14	
TOTAL HOURS	192	189	192	194	194	171	187	187	185		184	183	168	156		184	193	187	19	62	184		
Appt. Sch.	94	58	45	76	103	85	41	13	0		25	93	52	38		0	3	0	0	0	1		
Appt. Canc.	10	13	8	1	13	9	2	0	0		10	15	9	-		0	0	0	0	0	0		
N/S Appt.	9	4	5	6	10	10	3	0	0		2	5	3			0	0	0	0	0	0		

EXHIBIT 5-3*

Hours Worked by Disciplines and Unit Activities For Six Months

(7/1-12/31/72)

		Support	Unit Activities					
	Total	Admin.	600	620	640	650	660	690
Discipline A:								
Indiv. #1	618	46	528.5	28	1		14.5	
Indiv. #2	1,206.75	388.5	220.5	288.75	209	61.25	38.75	
Indiv. #3								
Indiv. #4								
Subtotal	1,824.75	434.5	749	316.75	210	61.25	53.25	
Discipline B:								
1	1,004	127	3	776		24	74	
2	1,010.5	220.5	3	732	1.5	4.5	49	
3	928	143	7	627.5	1	14	135.5	
4	602.5	100		401	1.5	2	98	
5	349	320.5		2.5			26	
Subtotal	3,894	911	13	2,539	4	44.5	382.5	
Discipline C:								
1	1,033	208.5	15	735.5		6	68	
2	1,054	183	2	841		4	23	
3	1,058	95.5	539.5	405		5	13	
4	1,031.5	116.5	3.5	799.5		7	105	
Subtotal	4,175.5	603.5	560	2,781		22	209	
Others	8,292	1,111.5	863	1,191.5	4,532	13	581	
TOTALS	18,186.25	3,060.5	2,185	6,828.25	4,746	140.75	1,225.75	

*Exhibits 5-3 through 5-11 are adaptations of "A Cost-finding and Rate-setting Simulation for Community Mental Helath Centers" by James E. Sorensen, University of Denver, 1971.

EXHIBIT 5-4

Accounting and Statistical Data Base

The following data were gleaned from the accounting and statistical subsystems for July 1 thru December 31, 1972

Expenses by major category:

professional personnel salary expense	$ 119,778
nursing service salary expense	102,390
other salaries (e.g., clerical)	38,154
drugs and medicines	7,596
travel expense	869
training and conferences	7,544
utilities (telephones, heat, light, power)	13,965
supplies	9,510
building and equipment repairs	4,067
housekeeping (salaries and supplies)	13,347
dietary (salaries and foodstuffs)	28.164
pharmacy	1,538
administration	25,354
building (rent and depreciation)	10,484
equipment (rent and depreciation)	5,067
Total Expense	$ 387,827
Contract expense for special studies (not included in expense rate calculation)	7,120
	$ 394,947

Statistical data:

600 - number of inpatient days	4,241
620 - number of outpatient visits (all types)	5,107
640 - number of partial hospital visits	1,013
650 - number of emergency contacts	281.5
660 - number of conferences in consulting & education unit	1,225
690 - number of inpatient days - Rose de Lima	0
total hours of professional personnel	18,186.25

discipline A	1,824.75
discipline B	3,894
discipline C	4,175.5
* other	8,292
Total	18,186.25

EXHIBIT 5-5
Salaries Allocated by Discipline and Unit Activities*
1st Half FY-1972-73

	Expense Total	Support Admin.	600	620	640	650	660	690
Discipline A:								
Indiv. #1	$ 13,365	933	11,357	666	12		397	---
Indiv. #2	18,081	4,597	6,410	3,417	2,473	725	459	---
Indiv. #3								
Indiv. #4								
Subtotal	$ 31,446	5,530	17,767	4,083	2,485	725	856	
Discipline B:								
1	$ 8,870	1,122	27	6,853		214	654	---
2	8,870	1,936	26	6,425	13	40	430	---
3	7,345	1,132	56	4,965	8	111	1,073	---
4	4,993	829		3,324	12	16	812	---
5	2,539	2,333		17			189	---
Subtotal	$ 32,617	7,352	109	$21,584	33	381	3,158	---
Discipline C:								
1	$ 6,692	1,351	96	4,766	---	39	440	---
2	5,072	881	9	4,053	---	19	110	---
3	5,558	502	2,833	2,127	---	27	69	---
4	5,308	599	18	4,116	---	35	540	---
Subtotal	$ 22,630	$ 3,333	$ 2,956	$15,062	$ ---	$ 120	$ 1,159	$ ---
Others	$ 33,085	$ 4,435	$ 3,443	$ 4,754	$18,083	$ 52	$ 2,318	$ ---
Totals	$119,778	$20,650	$ 24,275	$45,483	$20,601	$1,278	$ 7,491	$ ---

Salary to be allocated	20,650
Salary to be charged directly against program units	$ 99,128
	119,778

* Salaries were allocated using the time distribution in Exhibit 5-3; hourly salary rates are multiplied by the hours in each unit activity.

EXHIBIT 5-6

Professional Expense Rates Per Hour of Service
1st Half FY-1972-73

Item			
Rates for final services:			
(1) Rate by discipline*			
Discipline A(3.25)	$ 25,916	1,390.25	$ 18.64
Discipline B(3.5)	25,265	2,983	8.47
Discipline C(3.0)	19,297	3,572	5.40
*Others	28,650	7,180.5	3.99
	$ 99,128	15,125.75	
(2) Composite Rates**			
(a) By organizational unit			
600	$ 24,275	2,185	$ 11.11
620	45,483	6,828.25	6.66
640	20,601	4,746	4.34
650	1,278	140.75	9.08
660	7,491	1,225.75	6.11
690	---	---	---
Total	$ 99,128	15,125.75	
(b) By combined discipline & program			
Total from (a)	$ 99,128	15,125.75	$ 6.55
(3) Rate for Administrative Services***			
Total from Exhibit II, Column 2	$ 20,650	3,060.5	$ 6.75

*Rates by discipline are determined by combining all hours worked by each discipline as listed in Exhibit 5-3 minus hours listed in the Support-Administrative category. This total is then divided in each discipline into total dollar cost per discipline less Support-Administrative costs to determine each discipline cost per hour.

**Composite Rates are determined by combining all hourly activity regardless of discipline into each program (Example Code 600) area. Composite hourly rate is then multiplied times total hours in the program.

***Rate for Administrative services is determined by multiplying the composite discipline rate times total hours allocated to Administrative and Support in Exhibit 5-5.

EXHIBIT 5-7

Direct Unit Charges*
(Excluding Professional Personnel)

	Total	Support	Program Unit:					
		Admin.	600	620	640	650	660	690
Nursing services	$102,390		$102,390	$	$	$	$	$
Other salaries (e.g., clerical)	38,154	32,812	5,342					
Drugs & medicines	7,596		7,596					
Travel	869	869						
Training conferences	7,544	6,344			1,200			
Utilities (e.g., telephone)	13,965	1,816	6,005	1,536	1,536	1,536	1,536	
Supplies	9,510	1,189	4,089	1,094	1,046	1,046	1,046	
Building & Equip. Repairs	4,067	508	1,749	448	447	447	468	
	$184,095	$43,538	$127,171	$3,078	$4,229	$3,029	$3,050	$

*Direct unit charges are determined by allocation of non-professional salaries and expenses to program units. Allocation to program units is made at the time of payment of invoices.

EXHIBIT 5-8

Support and Facilities Expenses to be Allocated to Primary Organizational Activities Using the Step-Down Method of Cost Allocation*

Item	Total
Housekeeping	$ 13,347
Dietary	28,164
Pharmacy	1,538
Administration	25,354
Building Expense	10,484
Equipment Expense	5,067
Total	$ 83,954

*Support and facility expenses are determined by organizational assignments and simply totaled for the various categories listed.

EXHIBIT 5-8
Cost-Finding Worksheet Using Step-Down Method
of Cost-Allocation for Support and Facilities Expense Only*
1st Half FY-1972-73

Support Units:	Adjusted Balance	Building	Equipment	Subtotal	Admin.	House-keeping	Dietary	Pharmacy	Total
Facilities:									
Building	$ 10,484	$10,484							
Equipment	5,067		$ 5,067						
Administrative:									
Director's Office	$ 25,354	$ 944	$ 456	$ 26,754					
Other (from Exhibit 5-7, column 2)	$ 43,538	$ ---	$ ---	$ 43,538					
Allocated to Administration (from Exhibit 5-5, column 2)	$ 20,650	$ ---	$ ---	$ 20,650	$90,942				
General Services:									
Housekeeping	$ 13,347	$ 105	$ 51	$ 13,503	$ 6,366	$19,869			
Dietary	$ 28,164	$ ---	$ ---	$ 28,164	$ ---	---	$28,164		
Pharmacy	$ 1,538	$ ---	$ ---	$ 1,538	$ ---	---		$ 1,538	
Unit Activities:									
Program 600	$127,171	$ 4,508	$ 2,179	$133,858	$31,830	$ 9,537	$28,164	$ 1,538	$204,927
Program 620	3,078	1,992	963	6,033	28,192	2,980	---	---	37,205
Program 640	4,229	2,306	1,115	7,650	14,551	4,967	---	---	27,168
Program 650	3,029	105	51	3,185	2,728	1,392	---	---	7,305
Program 660	3,050	524	252	3,826	7,275	993	---	---	12,094
Program 690	---	---	---	---	---	---	---	---	---
Total	$288,699	$10,484	$ 5,067	$288,699	$90,942	$19,869	$28,164	$ 1,538	$288,699

*Allocations of costs via the step-down method is accomplished by using the following variables:
1) Square footage occupied by a program
2) Number of people employed in a program
3) Salaries of people employed in a program
4) Operating expenses of a program
Step-downs are made until all costs listed have been allocated to a program.

EXHIBIT 5-9
Calculation of Support and Facilities Expense
by Final Organizational Unit*
1st Half FY-1972-73

Final Organizational Unit	1 Total Direct and Allocated Expense (from Exhibit 5-8)	2 Type of Transaction	3 Number of Transactions	4 Expense per Transaction (1÷3)	5 Number of Hours (from Exhibit 5-3)	6 Expense Per Hour (1÷5)
Unit 600	204,927	No. of In-Pat. Days	4,241	48.32	2,185	93.79
Unit 620	37,205	No. of Out-Pat. Visits	5,107	7.29	6,828.25	5.45
Unit 640	27,168	No. of Partial Hosp. Visits	1,013	26.82	4,746	5.72
Unit 650	7,305	No. Emergency Contacts	281.5	25.95	140.75	51.90
Unit 660	12,094	No. Conf. in Consul. & Educ.	1,225	9.87	1,225.75	9.87
Unit 690	---	No. Rose de Lima	---	---	---	---

*These figures are determined by using total direct and allocated program expense from Exhibit 5-8 Column 9, and program statistics from Exhibit 5-4. The number of transactions in each program is divided into total expense to arrive at the support and facilities expense per individual program transaction or per hour.

EXHIBIT 5-10
Summary of Expense Rates for Professional Time and for Support and Facilities*

Final Organizational Unit	Professional Time Per Hour: Discipline A	B	C	Other	Composite Professional	Support & Facilities: per Transaction	per Hour
Unit 600	$ 18.64	$ 8.47	$5.40	$3.99	$ 11.11	$ 48.32	$ 93.70
Unit 620	18.64	8.47	5.40	3.99	6.66	7.29	5.45
Unit 640	18.64	8.47	5.40	3.99	4.34	26.82	5.72
Unit 650	18.64	8.47	5.40	3.99	9.08	25.95	51.90
Unit 660	18.64	8.47	5.40	3.99	6.11	9.87	9.87
Unit 690	---	---	---	---	---	---	---

*These figures are a listing of professional costs determined previously in Exhibit 5-6 and support and facilities expense determined in Exhibit 5-9.

EXHIBIT 5-11
Demonstration of Absorption of Total Expense Through Expense Rates*
1st Half of FY-1972-73

Total Expenses from Ledger:				
Professional Personnel (before allocation)				$119,778
Support & Facilities:	Direct to units		$184,095	
	Indirect		83,954	268,049
Total				$387,827

Total Expense by Expense Rates

Professional Personnel: (from Exhibit 5-6)

	Hours	Rate	Total	
(a) By discipline				
A	1,390.25	$18.64	$25,916	
B	2,983	8.47	25,265	
C	3,572	5.40	19,297	
Others	7,180.5	3.99	28,650	
			$99,128	
				$99,128
(b) By composite discipline				
Unit 600	2,185	11.11	24,275	
Unit 620	6,828.25	6.66	45,483	
Unit 640	4,746	4.34	20,601	
Unit 650	140.75	9.08	1,278	
Unit 660	1,225,75	6.11	7,491	
Unit 690	---	---	---	
(c) By composite discipline and unit program				
	15,125.75	6.55	$99,128	

Support & Facilities:

(a) By unit of measure from exhibit

Program Unit		Number of Units	Rate/Unit		
600	4,241	Inpatient Days	$ 48.32	$204,927	
620	5,107	Outpatient Visits	7.29	37,205	
640	1,013	Partial Hosp. V.	26.82	27,168	
650	281.5	Emergency Contacts	25.95	7,305	
660	1,225	Consul. & Education	9.87	12,094	
690		Rose de Lima	---	---	
				$288,699	
					$288,699

(b) By rate per professional hour

Program Unit	Number of Hours	Rate/Hour		
600	2,185	$ 93.79	$204,927	
620	6,828.25	5.45	37,205	
640	4,746	5.72	27,168	
650	140.75	51.90	7,305	
660	1,225.75	9.57	12,094	
690			$288,699	
Total Professional personnel and support facilities				$387,827

*This exhibit is a check on the rate-setting procedure.

(1973). The procedures described are used for cost-finding and rate-setting for regional mental health centers for the entire state of Kentucky.

The Department of Mental Health has entered into interagency agreement with the Department of Economic Security to provide services, through Regional Mental Health Centers, to recipients of Aid to Families with Dependent Children (Title IV-A) and Aid to the Aged, Blind and Disabled (Title XVI) programs. These agreements set forth the requirement that expenditures for services covered by Titles IV-A and XVI be identified on all billings submitted to the Department of Economic Security.

To satisfy this requirement, a cost allocation plan which identifies direct and indirect costs of rendering services should be developed in each Region. To aid the Regional Centers in properly identifying cost of services the Department of Mental Health has developed a plan for identifying and billing all costs which relate to the covered services included in the interagency agreements. The plan has been documented on pages 5-19 through 5-41.

A narrative description of the cost allocation plan which includes a brief discussion of the identification, allocation and billing of costs under Titles IV-A and XVI is presented first, followed by detailed instructions to be used in identifying the direct and indirect costs of rendering covered services under Titles IV-A and XVI and the subsequent billing of these costs through the Department of Mental Health. The written procedures are supported by exhibits prepared from financial data, statistics and organization structure from one of the existing regions. A copy of the Department of Mental Health's procedures for monitoring the prospective billing dates during the year has been included.

DESCRIPTION OF BILLING SYSTEM

Titles IV-A and XVI of the Social Security Act set forth the requirements for identifying and billing expenditures for services rendered to eligible recipients. To properly classify these expenditures, it is necessary to develop a cost allocation plan which identifies both the direct and indirect costs of the Regional Mental Health Centers.

The first step in developing the cost allocation plan is to thoroughly review the organizational structure of the Regional Mental Health Centers. For cost allocation purposes each organization unit is reviewed to determine its functions, i.e., is the unit a provider of direct client services, an indirect clinical support unit or an administrative unit? Also to be reviewed are the relationships among the various units to identify what services are rendered to clients and to other organization units and how the services are being rendered. After this review, a functional organization chart is prepared to show the relationships among the organizational units.

The next step is to determine the direct and indirect costs of each organizational unit. Direct costs are defined as costs which can be specifically identified with a particular organizational unit. Included in direct costs are salary and wage costs, fringe benefits, rent, utilities, transportation, etc. Each direct cost is reviewed and supporting schedules are prepared to identify the direct costs of each organizational unit.

Indirect costs are incurred for a common or joint purpose benefiting more than one organizational unit and are not readily assignable to the organizational units specifically benefited. Indirect costs such as data processing, insurance, office supplies etc. are summarized and allocated to the organizational units through the use of step-down cost method. The basis for allocation of indirect costs is each unit's salary and wage cost to total salary and wage cost for the region.

After identifying all direct and indirect costs with organizational units, it is necessary to allocate the costs of indirect clinical support units and administrative units to those units providing direct client services. A step-down cost method is used to perform this allocation.

After all direct and indirect costs are identified with the units providing direct client services, it is necessary to determine the basis on which the costs will be billed. Since on July 1, 1973, the eligibility for covered services under Titles IV-A and XVI is based on an individual client basis, it is necessary to identify individual services rendered to clients.

To meet the individual eligibility requirement it is necessary to develop billing rates for each type of direct client service. Client services are currently being identified through the use of service tickets and service registers which are sent weekly to the Department of Mental Health. The regions will code service tickets and service registers with a special payor code indicating Title IV-A and XVI. The Department of Mental Health's Data Processing Center will summarize service tickets and registers into monthly reports which identify eligible recipients and the covered services they received.

To determine the billing rate, various reports and statistics should be analyzed to provide a basis for estimating annual services for each direct client service. These estimated annual services for each direct service are then divided into the total budgeted costs of providing that service to arrive at prospective billing rates. Prospective billing rates will be reviewed and approved by the Department of Mental Health to assure compliance with interagency contracts. The approved rates will be used in conjunction with the previously discussed monthly reports to calculate the monthly billings to the Department of Mental Health for covered services rendered to eligible clients under Titles IV-A and XVI. A monthly comparison of budget to actual costs will be prepared by each region and submitted to the Department of Mental Health to allow for periodic review of the cost basis on which the billing rates were established.

At the end of the fiscal year, the billing rates will be recalculated based on audited costs and actual services. The revised rates will then be used to recalculate the monthly billings which were submitted to the Department of Mental Health and appropriate revenue adjustments will be made.

The Kentucky Mental Health Retardation Centers Procedures Manual follows on pages 5-19 through 5-41.

Procedure 1. Regional Organization - Identification of Administrative and Service Units

Objective: To identify and document the organizational units and services of each unit of the Regional Mental Health-Mental Retardation Centers.

Steps 1. Review existing organization charts, unit budgets, clinical service unit profiles and other documentation to determine organizational units. (See exhibit 5-12)

2. Identify each organizational unit as either a provider of direct client services, an indirect support unit or as an administrative unit. (See exhibit 5-12)

3. Identify the relationships between the various units, i.e. which units provide or perform services for other units.

4. Prepare a functional organization chart which shows the relationship of the units to one another. (See exhibit 5-13)

5. Review the organization chart with the appropriate regional administrative levels.

Procedure 2. Identification of Direct Payroll Costs by Organizational Unit

Objective: To identify the direct salary and wage cost of each organizational unit.

Steps 1. Review existing payroll register and prepare current employee roster.

2. Add to current employee roster those vacant positions which are likely to be filled in the near future.

3. Identify each employee or position on employee roster with one or more organizational units.

4. Allocate each employee's or position's salary to the proper organizational unit(s) based on estimated time spent in each unit(s). Note: New time reporting may help identify how time is being spent. (See exhibit 5-14)

5. Total the salary and wage cost for each organizational unit and prepare schedule for same. (See exhibit 5-15)

EXHIBIT 5-12

DETERMINATION OF ORGANIZATIONAL UNITS
REGION XX

		TYPE OF SERVICE
I	Executive Director's Office	Administrative
II	Clinical Director's Office	Indirect
	A. Medical Records	Indirect
	B. Alcohol and Drug Programs	Direct
	1. Outpatient Services	Direct
	2. Half-way House	Direct
	C. Clinical Programs	Direct
	1. Outpatient Services	Direct
	2. Partial Hospitalization	Direct
	3. Inpatient Services	Direct
	4. Emergency Services	Indirect
	5. Information, Screening, Referral	Indirect
	6. Consultation and Education	Indirect
III	Director Developmental Disabilities Services	Indirect
	A. Developmental Training Program--Management	Indirect
	1. DTU--Children	Direct
	2. DTU--Adults	Direct
IV	Community Coordinator	Indirect
V	Sheltered Workshop	Direct
VI	Volunteers	Indirect
VII	Business Administration	Administrative
VIII	Personnel	Administrative

Definitions

Direct Service--A clinical service rendered face to face to an identified client.

Indirect Service--Supportive clinical services which are not rendered face to face or services to clients who do not have treatment plans.

Administrative--General administrative and office supportive services rendered to direct and indirect service units.

REGIONAL MENTAL HEALTH-MENTAL RETARDATION CENTER

REGION XX

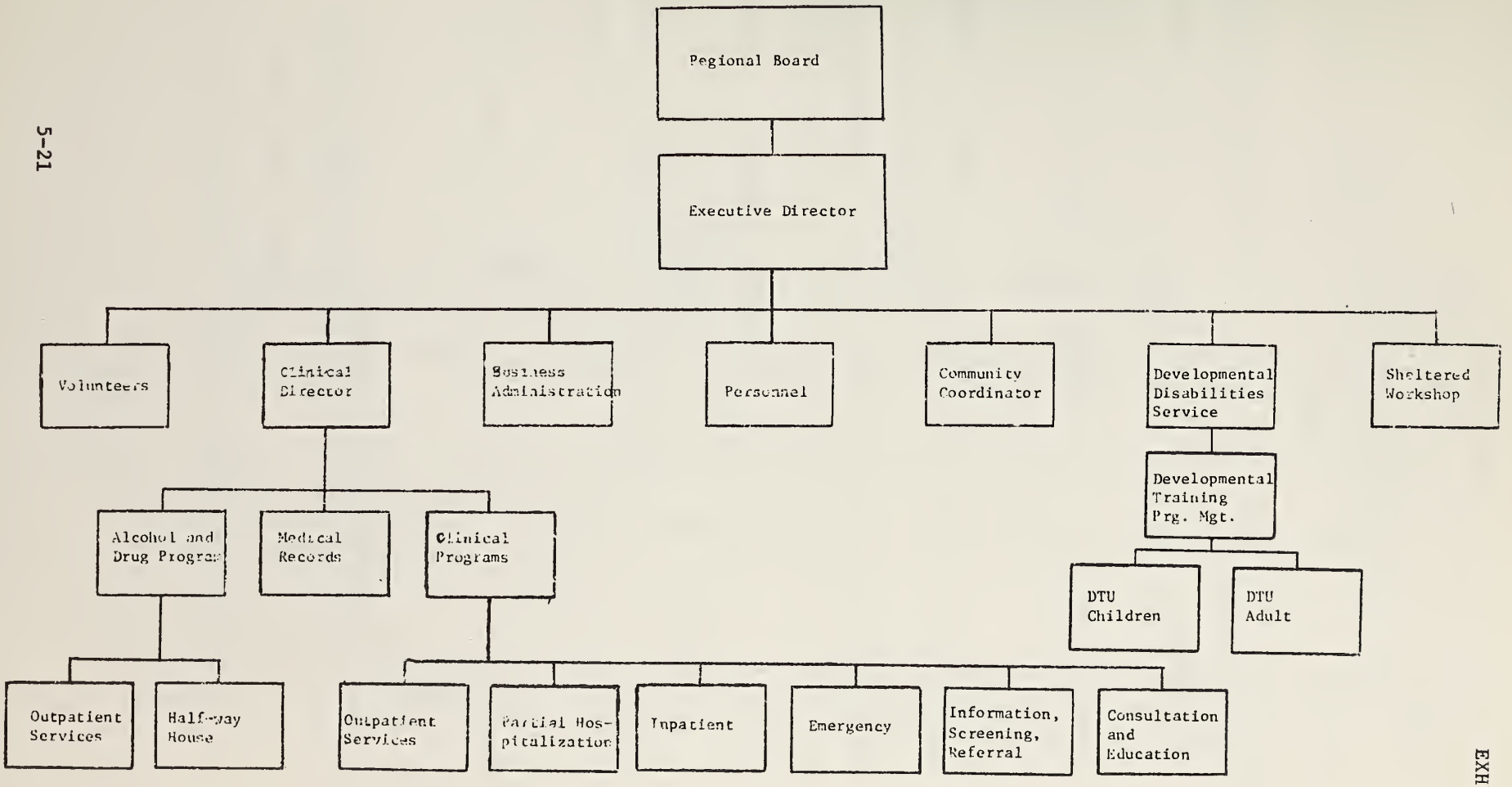


EXHIBIT 5-13

CURRENT EMPLOYEE ROSTER

REGION XX

Professional Code	Name	Position Description	Annual Salary	Outpatient %	Outpatient $		Partial Hosp. %	Partial Hosp. $	Inpatient %	Inpatient $	Emergency %	Emergency $		Admin. %	Admin. $
210	Spalding, M.	Psychologist	$ 10,000	45	$ 4,500		10	$ 1,000			5	$ 500			
313	Nelson, Faye	Nurse	7,600	30	2,280		30	2,280			10	760			
328	White, Beulah	Social Worker	14,070	30	4,221						5	704			
925	Peel, Karen	Accts. Clerk	5,100											100	$ 5,100
214	Shipp, Arthur	Psychologist	11,000	35	3,850						15	1,650			
948	Spicer, Helga	Secretary	3 900											100	3,900
638	Atwood, Joyce	M. H. Associate	5,400	45	2,430						5	270			
	Vacancy	L.P.N.	5,670	60	3,402						10	567			
		TOTAL	$1,065,821		$207,656			$69,230		$9,000		$21,258			$115,582

EXHIBIT 5-14

EXHIBIT 5-15

SALARY AND WAGE COST BY ORGANIZATIONAL UNIT

REGION XX

ORGANIZATIONAL UNIT	TOTAL SALARY AND WAGES
Administration (1)	$ 115,582
Clinical Director's Office (2)	24,610
Alcohol and Drug Outpatient Services	26,100
Half-way House	31,626
Outpatient Services	207,656
Partial Hospitalization	69,230
Inpatient Services	9,000
Emergency Services	21,258
Information, Screening, Referral	107,345
Consultation and Education	119,420
Developmental Disabilities Services (3)	75,780
DTU--Children	172,208
DTU--Adult	37,622
Sheltered Workshop	48,384
	$1,065,821

(1) Includes Executive Director's Office, Business Administration, Personnel, Community Coordinator, Volunteers

(2) Includes Medical Records

(3) Includes Developmental Training Program Management

Procedure 3. Computation of Fringe Benefits for Each Organizational Unit

Objective: To determine the cost of fringe benefits (social security, workmen's compensation, vacation, holiday, sick leave, health and life insurance, etc.) for each organizational unit.

Steps 1. Identify fringe benefits and their costs by analyzing prior years expenditures and/or the current years budget. (See exhibit 5-16)

2. Determine the ratio (%) of total fringe benefits cost to total salaries and wages for the Region.

3. Multiply the salary and wage cost of each organizational unit developed in step 5 of procedure 2 times the ratio (%) developed in step 2 of this procedure.

4. Prepare a schedule showing the estimated fringe benefit cost for each organizational unit. (See exhibit 5-17)

Procedure 4. Identification of Other Direct Operating Expenses by Organizational Unit

Objective: To identify the other direct operating expenses by organizational unit.

Steps 1. Review the expense classifications to determine those major expenses which are specifically identified with a particular organizational unit(s), i.e., rent, utilities, telephone, transportation, program supplies, food service, janitorial supplies, etc. These expenses are termed direct expenses. (See exhibit 5-18)

2. Determine the cost of the other direct expenses and prepare a schedule identifying these costs by organizational units. A suggested basis for allocation is shown for each direct expense and an example is shown for allocating rent expense. (See exhibit 5-19)

EXHIBIT 5-16

COMPUTATION OF FRINGE BENEFITS (1)

REGION XX

FICA	$ 55, 423
KERS	77,272
Teacher's Retirement Fund	
Workmen's Compensation	10,376
Hospitalization Insurance	
Unemployment Compensation	28,777
Meetings and Seminars (2)	15,000
Moving and Recruiting (2)	5,000
Other	
Total	$191,848

(1) Fringe benefits based on total salaries of $1,065,821.

(2) These expenses included in fringe benefits to comply with Federal grant requirements.

Total fringe benefits / Total salaries and wages = $ 191,848 / $1,065,821 = 18% Fringe Benefit Ratio

EXHIBIT 5-17

ESTIMATED FRINGE BENEFIT COST BY ORGANIZATIONAL UNIT

REGION XX

ORGANIZATIONAL UNIT	SALARIES AND WAGES	FRINGE BENEFITS
Administration (1)	$ 115,582	$ 20,805
Clinical Director's Office (2)	24,610	4,430
Alcohol and Drug Outpatient Services	26,100	4,697
Half-way House	31,626	5,695
Outpatient Services	207,656	37,378
Partial Hospitalization	69,230	12,461
Inpatient Services	9,000	1,620
Emergency Services	21,258	3,818
Information, Screening, Referral	107,345	19,357
Consultation and Evaluation	119,420	21,468
Developmental Disabilities Services (3)	75,780	13,640
DTU--Children	172,208	30,998
DTU--Adult	37,622	6,772
Sheltered Workshop	48,384	8,709
Totals	$1,065,821	$191,848

(1) Includes Executive Director's Office, Business Administration, Personnel, Community Coordinator, Volunteers

(2) Includes Medical Records

(3) Includes Developmental Training Program Management

EXHIBIT 5-18

REVIEW OF OPERATING EXPENSES TO DETERMINE DIRECT AND DIRECT EXPENSES

REGION XX

EXPENSE DESCRIPTION	DIRECT OR INDIRECT
Depreciation--Building	D
Depreciation--Equipment	I
Drugs	I
Dues and Publications	I
Electronic Data Processing	I
Equipment Maintenance	I
Food Service	D
Insurance	I
Interest Payments	I
Janitorial Supplies and Services	D
Meetings, Seminars (Non-Grant)	I
Moving, Recruiting (Non-Grant)	I
Office Supplies	I
Postage	I
Printing and Reproduction	I
Program Supplies	D
Rent	D
Repairs and Maintenance (Buildings)	I
Telephone	D
Transportation	D
Uncollectible Accounts	I
Utilities	D
Other Operating Costs	I or D

SCHEDULE OF DIRECT OPERATING EXPENSES

REGION XX

Expense Description	Amount	EXPENSE ALLOCATION					
		Partial Hosp.	Sheltered Workshop	Half-Way House	DTU Children	Outpatient	Admin.
Food service	$ 18,870	$ 2,750	$ 120	$16,000			
Janitorial supplies and services	6,556	1,000	1,200		$ 4,356		
Program supplies	30,925	2,250	12,000	750	8,800	$ 3,750	$ 1,275
Rent(1)	54,600	3,300	-	12,360	4,350	12,744	9,000
Telephone	19,032	240	1,200	384		7,638	4,476
Transportation	43,830	5,250	480	1,500		19,060	6,500
Utilities	4,320	180	2,628			907	
TOTAL	$178,133	$14,970	$17,628	$30,994	$17,506	$44,099	$21,251

(1) Utilities at some locations are included in rent.

EXHIBIT 5-19

EXHIBIT 5-19 (Continued)

DIRECT OPERATING EXPENSE ALLOCATION

REGION XX

DIRECT EXPENSE	BASIS FOR ALLOCATION
Rent	Square feet or estimate of usage (1)
Utilities	Square feet or estimate of usage
Telephone	Location of phone and analysis of past phone bills
Transportation	Analysis of past and projected expenditures based on employees assigned units
Program Supplies	Analysis of past and projected expenditures
Food Service	Analysis of past and projected expenditures
Janitorial Supplies and services	Analysis of expenditures and contracts and/or square feet

(1) See attached example

DIRECT OPERATING EXPENSES - RENT

REGION XX

EXAMPLE OF RENT ALLOCATION:

Situation: 5,815 square feet of office space and treatment space rented at $3.25 per square foot. An analysis of square foot usage by organizational unit showed the following:

UNIT	SQ. FT.	ANNUAL RENT
Administrative	2,769	$ 9,000
Outpatient	1,828	5,940
ISR	762	2,475
Consultation and Education	304	990
Emergency	152	495
Total	5,815	$18,900

NOTE: If analysis by square feet usage is not easily determinable or feasible as in the case where the same space is used by different services at different times, the space rental allocation should be an estimate based on time usage.

Procedure 5. Identification of Indirect Operating Expenses by Organizational Unit

Objective: To identify the indirect operating expenses by organizational unit.

Steps 1. Review the expense classifications to determine those indirect expenses which are incurred for common or joint purposes and which cannot easily be identified with a particular organizational unit, i.e., dues and publications, equipment leasing, equipment maintenance, insurance, licenses, office supplies, postage, purchased services (data processing) etc. These expenses generally account for less than 5% of a Region's total cost. (See exhibit 5-18 in procedure 4)

2. Determine the total cost of these indirect expenses.

3. Allocate the indirect expenses to the organizational units based on the salary and wage cost of each unit as a % of total salary and wage cost for all units.

4. Prepare a schedule allocating the total indirect operating expense to organizational units. (See exhibit 5-20)

Procedure 6. Allocation of Indirect and Administrative Costs to Organizational Units Providing Direct Client Services

Objective: To allocate the organizational unit costs of administrative and indirect units to those units providing direct client services.

Steps 1. Review the classification of each organizational unit, i.e., direct, indirect, or administrative, as established in procedure 1.

2. Review the organizational chart to determine which units are providing services to other units. Note that the administrative units provide services to all other units whereas Developmental Disabilities Services is providing services only to the D.T.U. units administering direct client care.

3. Determine the sequence by which the units should be allocated. The allocation should start with those units rendering the most generalized services such as the administrative units. The sequence of allocation may vary from Region to Region.

EXHIBIT 5-20

ALLOCATION OF INDIRECT OPERATING EXPENSES

REGION XX

Total cost of indirect expenses equals $65,589.

UNIT	SALARY AND WAGE COST	%	INDIRECT EXPENSES
Administration (1)	$ 115,582	10.9	$ 7,149
Clinical Director's Office (2)	24,610	2.3	1,509
Alcohol and Drug Outpatient Services	26,100	2.4	1,574
Half-way House	31,626	3.0	1,968
Outpatient Services	207,656	19.5	12,790
Partial Hospitalization	69,230	6.5	4,263
Inpatient Services	9,000	.8	525
Emergency Services	21,258	2.0	1,312
Information, Screening, Referral	107,345	10.1	6,624
Consultation and Education	119,420	11.2	7,346
Developmental Disabilities Services	75,780	7.1	4,657
DTU - Children	172,208	16.2	10,625
DTU - Adults	37,622	3.5	2,295
Sheltered Workshop	48,384	4.5	2,952
	$1,065,821	100.0%	$65,589

(1) Includes Executive Director's Office, Business Administration, Personnel, Community Coordinator, Volunteers

(2) Includes Medical Records

(3) Includes Developmental Training Program Management

4. Allocate the Administrative and Indirect units to the Direct units using salary and wage costs as a basis for allocation.

5. Prepare a step-down cost allocation schedule to allocate the administrative and indirect cost units. (See exhibit 5-21)

6. Total the costs for direct client services.

Procedure 7. Determination of Basis for Billing of Direct Client Services

Objective: To determine the most feasible basis for billing each direct client service.

Steps 1. Review the types of treatments and services which are classified under each direct client service.

2. Review and analyze the available statistics (visits, days, time, cases, etc.) which are kept for direct client service.

3. Determine the most feasible basis (statistic) to be used in computing a billing rate. Exhibit 5-22 shows a recommended basis for each direct client service.

Procedure 8. Computation of Annual Services

Objective: To identify the estimated annual services (visits, days, etc.) for each direct client service.

Steps 1. Review and analyze sources of available statistics. Sources should include actual and budgeted (internally prepared) statistics such as monthly reports and clinical service unit profiles. Also reports such as the monthly CCC Professional Services Summary prepared by the Department of Mental Health's Data Processing Center should be reviewed.

2. Prepare annual estimates of services for each direct client service. Exhibit 5-23 shows the annual estimates for an illustrative region.

Procedure 9. Computation of Billing Rates for Direct Client Service

Objective: To develop prospective billing rates for direct client services.

Steps 1. Determine the total annual cost for rendering each direct client service. This has been done in the step-down cost allocation in procedure 6.

STEP DOWN COST ALLOCATION

REGION XX

	OPERATING EXPENSES	SALARIES AND WAGES	FRINGE BENEFITS	RENT	UTILITIES	TELEPHONE	TRANSPORTATION	PROGRAM SUPPLIES	FOOD SERVICE	JANITORIAL SUPPLIES	OTHER	ADMINISTRATION	CLINICAL DIRECTOR'S OFFICE	DEVELOPMENTAL DISABILITIES SERVICES	INDIRECT - ISR, C & E, EMERGENCY	TOTAL ALLOCATED EXPENSES
Salaries and wages	$1,065,821	$(1,065,821)														
Fringe benefits	191,848		$(191,848)													
Rent	54,600			$(54,600)												
Utilities	4,320				$(4,320)											
Telephone	19,032					$(19,032)										
Transportation	43,330						$(43,830)									
Program supplies	30,925							$(30,925)								
Food service	18,870								$(18,870)							
Janitorial supplies	5,556									$(6,556)						
Other (1)	65,589										$(65,589)					
TOTALS	$1,501,391	$(1,065,821)	$(191,848)	$(54,600)	$(4,320)	$(19,032)	$(43,830)	$(30,925)	$(18,870)	$(6,556)	$(65,589)					
Administrative and Indirect Units																
Administration		$ 115,582	$ 20,805	$ 9,000		$ 4,476	$ 6,500	$ 1,275			$ 8,627	$(166,265)				
Clinical Director's office		24,610	4,430									$ 4,306	$(33,346)			
Development Disabilities Services		75,780	13,640	2,175							4,664	13,251	$ 3,530	$(113,040)		
Indirect - ISR, C & E, Emergency		248,923	44,543	5,496	$ 505	3,056	11,040	2,100			15,264	43,395	11,554		$(390,214)	
Allocation by Direct Service Unit																
Outpatient		207,656	37,378	12,744	907	7,638	19,060	3,750			12,779	36,313	9,675		$ 134,640	$ 482,540
DTU - Children		172,208	30,998	4,350				8,800		$ 4,356	10,596	30,160		$ 92,772	111,657	465,897
DTU - Adult		37,622	6,772	2,175							2,508	6,584		20,268	24,393	100,322
Partial Hospitalization		69,230	12,461	3,300	180	240	5,250	2,250	$ 2,750	1,000	4,068	12,104	3,226		44,887	160,946
Alcohol and Drug		26,100	4,697								1,606	4,572	1,215		16,924	55,114
Half-way House		31,626	5,693	12,360		384	1,500	750	16,000		1,965	5,537	1,473		20,506	97,776
Sheltered Workshop		48,384	8,709		2,628	1,200	480	12,000	120	1,200	2,978	8,463	2,254		31,371	119,787
Inpatient		9,000	1,620								944	1,680	419		5,436	19,009
TOTALS		$1,065,821	$ 191,848	$ 54,600	$ 4,320	$ 19,032	$ 43,830	$ 30,925	$ 18,870	$ 6,556	$ 65,589	$ 166,265	$ 33,346	$ 113,040	$ 390,214	$1,501,391

(1) For purposes of illustration, several small categories of operating expenses have been combined into an "other" category. In actual practice, each of these expenses would be listed separately.

EXHIBIT 5-21

EXHIBIT 5-22

STATISTICAL BASIS FOR DIRECT CLIENT SERVICES

REGION XX

DIRECT CLIENT SERVICES	BASIS
Outpatient	Estimated number of client visits per year
Partial Hospitalization	Estimated number of client visits per year
Sheltered Workshop	Estimated number of client visits per year
Alcohol and Drug Outpatient	Estimated number of client visits per year
Half-way House	Estimated number of client visits per year
Inpatient (1)	Estimated days of care per year
Developmental Training Units	Estimated days of service per year

(1) Some Regions do not bill for services rendered to inpatients.

EXHIBIT 5-23

ESTIMATED ANNUAL SERVICES

REGION XX

DIRECT CLIENT SERVICE	SOURCE	ANNUAL COMPUTATION METHOD	ESTIMATED ANNUAL SERVICES
Outpatient Visits	CCC Professional Service Summary	Analyzed actual visits for 2 month period and then multiplied by 6 for estimate of annual services	23,682 visits
Partial Hospitalization	CCC Professional Service Summary	(same as outpatient)	7,356 visits
Half-way House Visits	CCC Professional Service Summary	(same as outpatient)	10,218 visits
Sheltered Workshop Visits	CCC Professional Service Summary	(same as outpatient)	8,592 visits
Alcohol and Drug Outpatient Visits	Regional Internal Report	Analyzed visits for 2 month period and then estimated annual visits	786 visits
Developmental Training Units---Children	Regional Internal Reports	Reviewed contracts to determine days of service for regular school year and summer programs. Multiplied days of service times number of clients for estimated annual days.	26,351 Days of service
Developmental Training Units---Adults	Regional Internal Reports	(same as DTU---Children)	5,610 Days of service

2. Determine the estimated annual services to be rendered in each direct client service as shown in procedure 8.

3. Develop a prospective billing rate for each direct client service by dividing total annual cost by estimated annual service. (See exhibit 5-24)

Procedure 10. Billing of Direct Client Services

Objective: To bill the Department of Mental Health for direct client services rendered to eligible client by type of service.

Steps 1. Review the monthly report prepared by the Department of Mental Health. This report identifies each professional service rendered to each eligible client by type of service.

2. Compute the Titles IV-A and XVI billings by multiplying the number of direct services of each type time the billing rate.

3. Prepare the billing form and submit to the Department of Mental Health. (See exhibit 5-25).

Procedure 11. Year End Reconciliation of Billing Rates

Objective: To reconcile prospective billing rates to actual audited costs at fiscal year end.

Steps 1. Review year-end actual audited costs.

2. Perform step-down cost allocation to allocate actual costs of indirect and administrative units to costs of direct service units. (See procedures 2 through 6 for details)

3. Develop revised billing rates by dividing actual audited costs by actual services rendered.

4. Compute revised annual billings for Titles IV-A and XVI based on revised billing rates times actual eligible covered services.

5. Compare revised annual billings to amounts billed on prospective rates to Titles IV-A and XVI.

6. Prepare an additional billing if actual rates show Titles IV-A and XVI has been underbilled.

7. Prepare a refund if actual rates show Titles IV-A and XVI had been overbilled.

EXHIBIT 5-24

PROSPECTIVE BILLING RATES FOR DIRECT CLIENT SERVICES

REGION XX

$$\text{Outpatient visit rate} = \frac{\text{total annual outpatient costs}}{\text{total annual outpatient visits}} = \frac{\$482,546}{23,682} = \$20.38$$

$$\text{Partial Hospitalization Rate} = \frac{\text{total annual partial hospitalization costs}}{\text{total annual partial hospitalization visits}} = \frac{\$160,946}{7,356} = \$21.$$

$$\text{Half-way House Rate} = \frac{\text{total annual Half-way House costs}}{\text{total annual Half-way House visits}} = \frac{\$97,776}{10,218} = \$9.57$$

$$\text{Sheltered Workshop Rate} = \frac{\text{total annual sheltered workshop costs}}{\text{total annual sheltered workshop visits}} = \frac{\$119,787}{8,592} = \$13.94$$

$$\text{Alcohol \& Drug Outpatient Rate} = \frac{\text{total annual A\&D outpatient costs}}{\text{total annual A\&D outpatient visits}} = \frac{\$55,114}{786} = \$70.12$$

$$\text{Developmental Training Unit Rate---Children} = \frac{\text{total annual DTU costs - children}}{\text{total annual DTU days of service - children}} = \frac{\$465,897}{26,351} = \$17.($$

$$\text{Developmental Training Unit Rate---Adults} = \frac{\text{total annual DTU costs - adult}}{\text{total annual DTU days of service - adult}} = \frac{\$100,322}{5,610} = \$17.88$$

EXHIBIT 5-25

DEPARTMENT OF MENTAL HEALTH

BILLING FOR TITLES IV-A AND XVI COVERED SERVICES

FOR THE MONTH OF _____

REGION _____

TITLE IV-A AND XVI COVERED SERVICES

Outpatient visits	_____	x _____	(Rate) =	$
Partial Hospitalization Visits	_____	x _____	(Rate) =	
Half-way House Visits	_____	x _____	(Rate) =	
Sheltered Workshop Visits	_____	x _____	(Rate) =	
Alcohol and Drug Outpatient Visits	_____	x _____	(Rate) =	
DTU---Children Days	_____	x _____	(Rate) =	
DTU---Adult Days	_____	x _____	(Rate) =	_____

TOTAL BILLING $ _____

Prepared by _____ Approved by _____

Procedure 12 Interim Review of Regional Mental Health Center Prospective Billing Rates

Objective: To periodically compare budget to actual cost for monitoring the prospective billing rates.

Steps 1. Prepare a monthly budget report as indicated in exhibit 5-26. This report should show actual and budgeted costs and services for the month and year to date.

2. Review any unusual or large variances from budget with appropriate staff personnel. Determine reasons for variances, their effects on operations and what remedial actions should be taken.

3. Submit a copy of each month's budget report to the Department of Mental Health. Accompanying each month's report should be a discussion of the unusual or large variances and what remedial actions, if any, are planned.

EXHIBIT 5-26

REGION _____

MONTHLY BUDGET REPORT

FOR _____

	MONTH			YTD		
OPERATING EXPENSES	BUDGET	ACTUAL	VARIANCE	BUDGET	ACTUAL	VARIANCE
Salaries and wages						
Fringe benefits						
Rent						
Utilities						
Telephone						
Transportation						
Program Supplies						
Food Service						
Janitorial Supplies						
Other						
TOTAL						
CLIENT SERVICES						
Outpatient						
DTU---Children						
DTU---Adult						
Partial Hospitalization						
Alcohol and Drug						
Half-way House						
Sheltered Workshop						
Inpatient						
TOTAL						

REFERENCES FOR CHAPTER 5

Burke, Thomas. "Cost-Finding and Rate-Setting for the Smaller Mental Health Center." Southern Nevada Community Mental Health Center, Las Vegas, Nevada, 1973.

Ernst & Ernst. Regional Mental Health Centers Guidelines for Establishment of Billing Rates. Prepared for the Kentucky Department of Mental Health, Louisville, Kentucky, 1974.

Sorensen, James E., and Phipps, David W. Cost-Finding and Rate-Setting For Community Mental Health Centers, National Institute of Mental Health, DHEW Publication No. (HSM) 72-9138, Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, 1972.

CHAPTER 6

BUDGETING SUBSYSTEMS

Budgeting further integrates each of the subsystems discussed previously because budget preparation relies on the integration of information from accounting, statistics, and cost-finding/rate-setting. Todd S. Smith (1973) outlines the general approaches to budgeting and identifies the necessary interaction between the various subsystems.

The following discussion is designed to offer a general background in budgeting and responsibility accounting for community mental health centers. The topics of discussion will be:

- *Rules of the budgeting game*
- *Advantages of budgets*
- *Types of budgets*
- *Steps in budget preparation*
- *Control aspects*
- *Sample forms for budgeting*

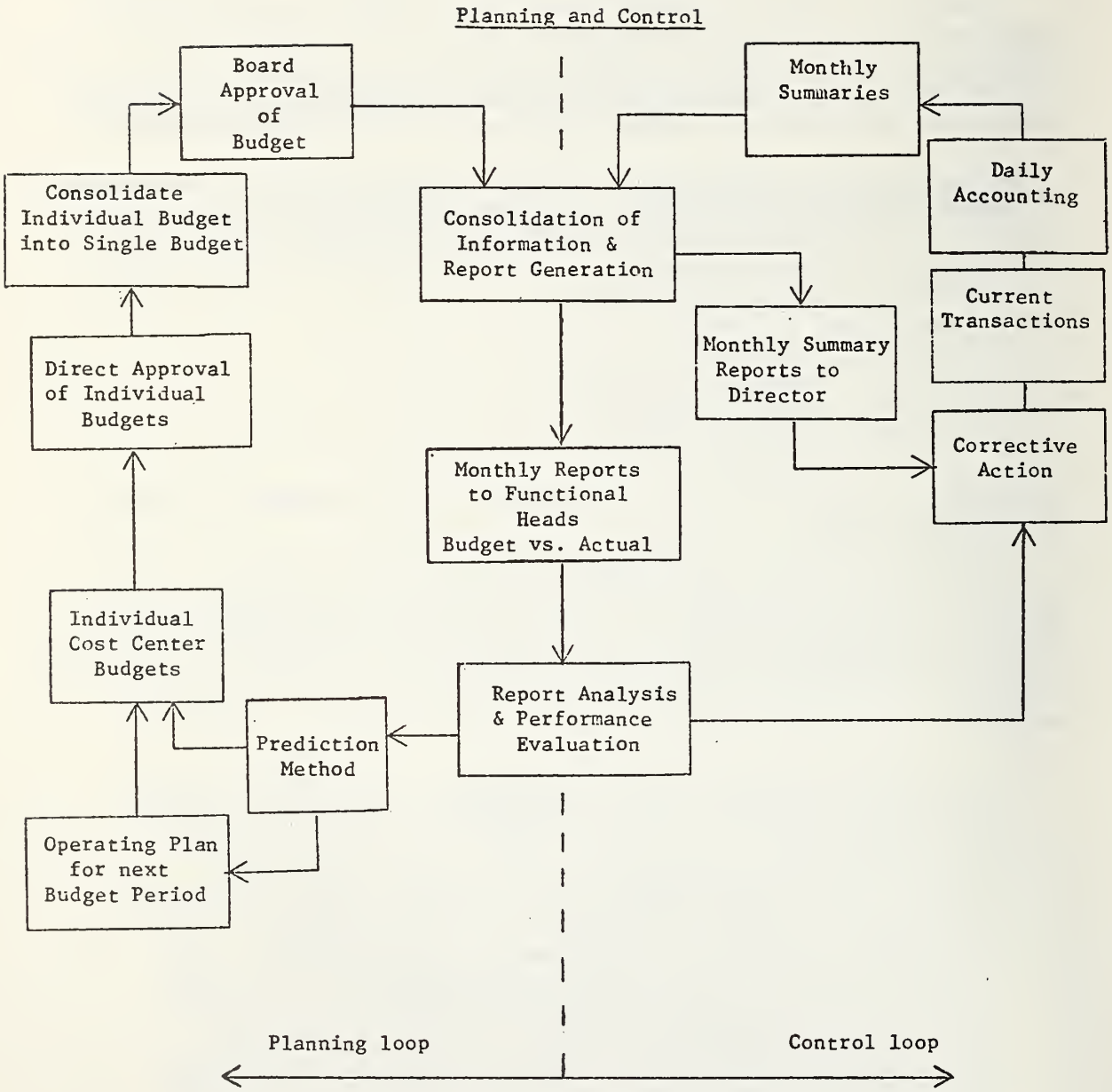
The scope has been limited to cost budgets and the analysis of actual vs. budgeted costs.

Budgeting may be operationally defined as the estimation of the elements of income and cost on a basis of the best information available and comparing this plan with actual results. Because the foregoing definition encompasses the concepts of planning and control, Charles T. Horngren's (1972) definition of these concerns provides additional clarity:

> *For our purposes we define planning as the selection of objectives and their means of attainment. Therefore, planning is a delineation of goals and a choice of a decision model (decision method) for selecting means of achieving them. Control is the implementation of a decision model and the use of feedback so that objectives are optimally obtained. This definition of control is comprehensive and flexible. It is concerned with the successful implementation of a course of action as predetermined by a decision model; but it is also concerned with feedback that might (a) change the future plans given the model, and (b) possibly change the decision model itself or change the prediction method that provides input into the decision model.*

These concepts can be couched schematically in terms of planning and control loops as illustrated in exhibit 6-1.

EXHIBIT 6-1


Planning and Control
Board Approval of Budget
Monthly Summaries
Daily Accounting
Consolidate Individual Budget into Single Budget
Consolidation of Information & Report Generation
Current Transactions
Monthly Summary Reports to Director
Direct Approval of Individual Budgets
Corrective Action
Monthly Reports to Functional Heads Budget vs. Actual
Individual Cost Center Budgets
Report Analysis & Performance Evaluation
Prediction Method
Operating Plan for next Budget Period
Planning loop
Control loop

RULES OF THE BUDGETING GAME

The circumstances within each organization will, of course, vary and there is no magic formula to successful budgeting, but there are some basic rules that apply generally.

Rule 1--Don't get the budgetary cart before the organizational horse

A well-defined internal organization must precede a successful budgeting effort. Functional responsibility must be well-defined and understood by all personnel involved in the budgeting process. Budgeting encourages optimum delegation of responsibility and authority. Responsibility accounting is the tool through which control is exercised by the measurement of performance. Obviously the delegation of responsibility and authority in the budgeting context will not be a reality unless the organization is well-defined.

Rule 2--No man is an island . . . .

The establishment and administration of a budget is by no means a one-man job. Effective establishment and administration of a budgeting effort takes team work to collectively integrate the independent parts of a budget into an overall operating plan. Often a useful tool for the teamwork approach is a budget committee consisting of all functional heads as well as the business manager and the director.

Rule 3--Top brass blessing

In order for a budgeting effort to be successful, the system must have the complete approval of the administration. Without this approval, budgets can very easily be hidden in administrative desks and become totally ineffective.

Rule 4--Utopia doesn't exist

Budget goals established must be realistic. Targets and goals based on hope or unreasonable optimism do more harm than good. On the other hand, the same holds true for unwarranted pessimism.

Rule 5--Get the little guys involved

The installation of a budget must be started at the lowest level practicable. Budgets and the delegation of performance responsibility are more effective if project leaders are allowed to establish their own goals that are in line with the overall organizational objectives and approved by the administration.

Rule 6--Look in everyone's wallet

Budgeting should cover every aspect of the operations. Every item of income and expense should be considered.

Rule 7--First aid for the wounded

Operations must be periodically appraised through comparisons to the budget. There is a need for adequate, frequent and timely reporting of actual results. Careful analysis of variances from the budget should be made whether they are favorable or unfavorable. The crucial issue is to know why there was a deviation from the plan.

Rule 8--The best laid plans of mice and men . . . .

Even the best laid plans may not come to pass. If the budget is discovered to be out of line through an evaluation of deviations from actual, then the budget should be adjusted. Perhaps changes should be made in the data accumulation, prediction method, or even the method of implementation. Adjusting budgets in CMHCs where funding was initially dependent on the budget is often difficult and in many cases illegal (i.e., governmental appropriations based on budgets). In these cases budgets represent more than guidelines to follow but rather the "letter of the law". Budgets for internal operating should be changed to reflect current experience, while changes in budget design for funding purposes become increasingly important for the following budget (funding) period.

Why Bother?

The question is frequently asked, "Why bother? Budgets are too costly to establish. I don't have adequate in-house staff to properly administer a budget, given all of these rules. Budgets will be too restrictive."

Budgeting can be relatively painful and costly at the outset, but the advantages realized through proper budgeting generally and quickly offset cost and anxiety. The cost control effected and the increased knowledge of cost behavior usually result in decreased costs that exceed initial outlays. Budgets are difficult to administer, but a good accounting system working in tandem with the budgeting team can result in a relatively painless administrative activity. Budgets can be as restrictive as management wants, but hopefully budgets will not be used as straight-jackets. Budgeting simply does not work if it is inflexible and insensitive to realistic goals.

A properly established and administered budget, then, has a number of advantages. Planning is forced at all levels of activity. Budgeting usually results in improved overall coordination of the various

functional activities. All of the activity areas are formally planning to achieve the overall goals and objectives of the center. Budgeting tends to sharpen employee motivation by requiring cooperation at all levels and encouraging delegation of responsibility and authority. Employees are encouraged to shoot for goals they have established. Costs are generally reduced by high-lighting areas where economies can be realized. Greater cost consciousness and a greater understanding of cost behavior usually results. Budgeting establishes control through comparison of actual performance to the plan and investigation and evaluation of deviations from the plan. Finally budgeting provides administrators with better performance measurement tools to address financial responsibility.

TYPES OF BUDGETS - ACTIVITY AND TIMING

Activity

There are two types of budgeting techniques available in terms of levels of activity covered by the plan--static and flexible.

Static. Plans developed for a given level of activity are known as static budgets. The plan is compared with actual results which may or may not be at the same level of activity on which the plan was based. The budget, in other words, is inflexible and is not adjusted for changes in volume. Static budgets are completely satisfactory when predictions of activity levels are made with a high degree of certainty. This, of course, is not often the case. To alleviate this weakness, the technique of flexible budgeting is used widely.

Flexible. Budgets designed to make comparisons between actual results and the plan at any level of activity are flexible. Flexible budgeting is nothing more than a series of static budgets at various activity levels. Inherent in flexible budgeting is the delineation between fixed and variable costs. Over relevant ranges of activity fixed costs are assumed to increase or decrease in direct proportion to changes in volume. Flexible budgeting requires an understanding of cost behavior within the organization. Without understanding how costs behave in relation to activity, costs are difficult to predict with any degree of accuracy at varying levels of activity.

Timing

In terms of timing the budget preparation, there are basically two approaches--periodic and continuous.

Periodic. Traditionally budgets have been prepared on an annual basis for the ensuing fiscal period. During the budget preparation period, typically the "panic button" is pressed and all other accounting

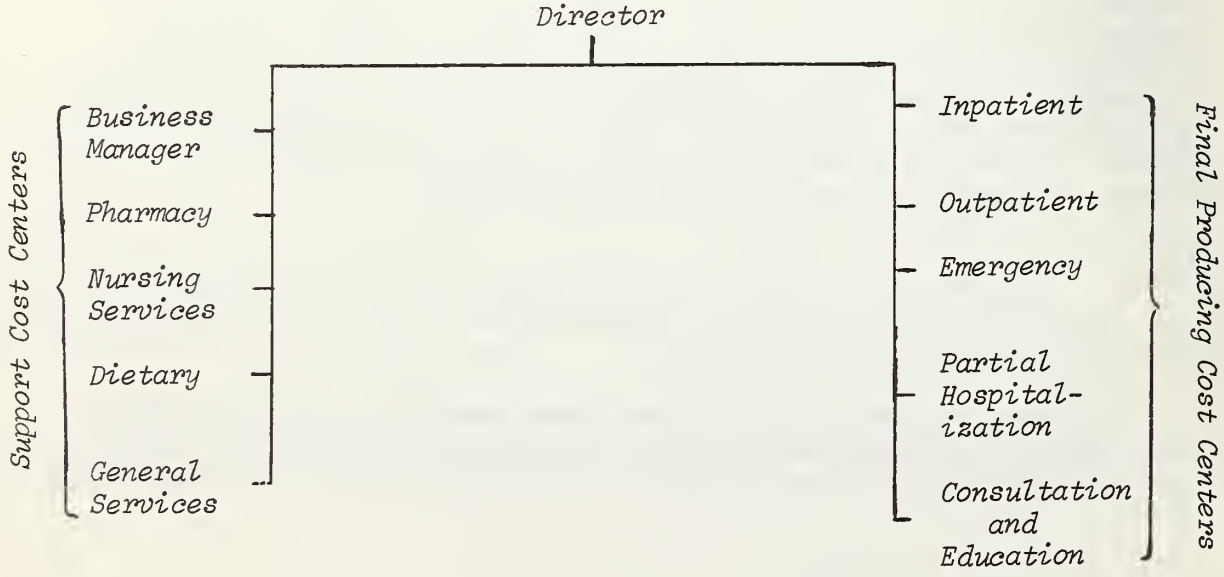
work seems to take a lower priority until the budget has been kicked off the assembly line. Planning is done formally only on a once-a-year basis. Budget figures are not adjusted during the period. All those involved in the budget preparation are subjected to a great deal of pressure.

Continuous. The preferable approach to budgeting should be on a continuous basis. Budgets are continuously reviewed and updated, perhaps monthly or quarterly for the ensuing twelve-month period. The approach provides the availability of a budget at any time for at least one year in advance. This forces regular and continuous planning on the part of management, using control techniques to their fullest extent. Another advantage to continuous budgeting is the relief from the "once-a-year" pressure on budget preparers by spreading the grief throughout the year.

While flexible, continuous budgeting is preferable from a control standpoint, these techniques are generally inappropriate for funding. Structured funding patterns require the preparation and use of static, periodic budgets.

BUDGET PREPARATION

Preparation of budgets begin with individual cost centers. These cost centers are defined according to the organizational structure of the center. Budgets should be prepared for all facets of the organization--both support and final producing cost centers (which traditionally are referred to by accountants as revenue producing centers). A typical organization chart defining cost centers might be as follows:



Final producing cost centers in this example are established based on types of service offered. Other alternatives might be cost centers based on type of disorder being treated or type of patient being treated. Even though the final producing cost centers may be based on something different, the five basic services outlined above will be in existence.

Regardless of the organizational structure of a center the following steps are generally applicable in preparing a budget:

- Forecast levels of activity by cost center (support and final producing cost centers).
- Estimate direct costs in each cost center at the forecasted activity level.
- Determine a method for allocating estimated support costs (indirect costs) to final producing cost centers.
    - Allocate the estimated support service costs to the final producing cost centers.
- Establish billing rates based on projected costs.
- Prepare pro-forma financial statements.

Forecasting Levels of Activity

The initial step in budget preparation is the prediction of activity levels within the various cost centers. Levels of activity should be forecasted in terms of the most easily identifiable units of service within any given function. For example, if the organization is structured such that the final producing cost centers are designated by types of service, the following activity units might be used in each of the cost centers:

Cost Center	Activity Unit
Inpatient	Inpatient days
Outpatient	Outpatient visits or Hours of Service
Emergency	Hours of Service
Partial Hospitalization	Standard visit based on predetermined hours per visit or Hours of Service
Consultation and Education	Hours of Service

Examples of activity units in support cost centers might be as follows:

Cost Center	Activity Unit
Business Manager and other Administration	Labor Hours
Pharmacy	Prescriptions
Nursing Services	Nursing Hours or Inpatient Days
Dietary	Number of Meals
General Services	Labor Hours

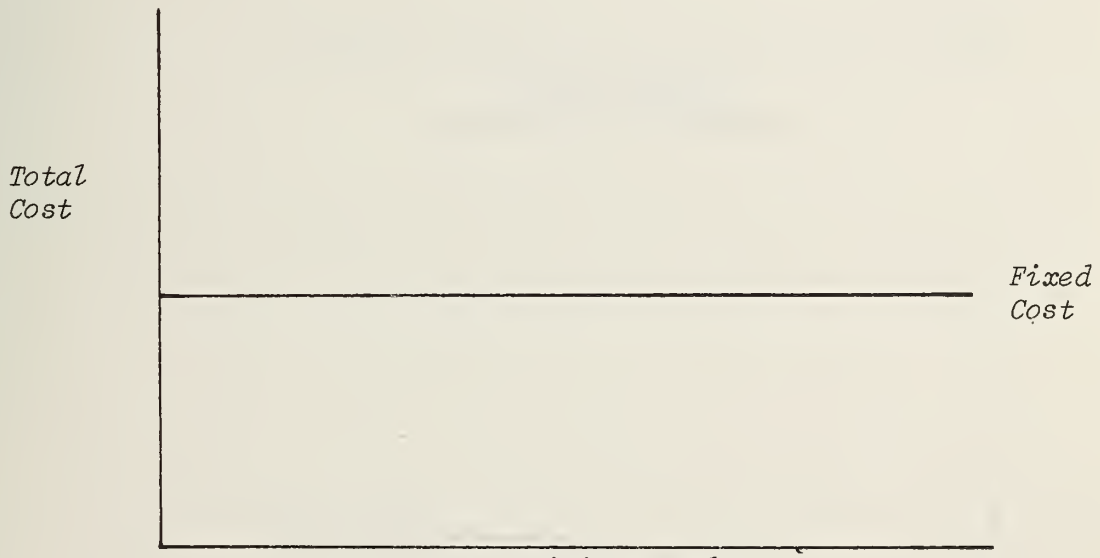
Once the basic unit of activity has been defined with each function, the forecasting begins. Typically projections of this nature are based on historical data. The simplest method of projecting historical data is to assume that the most recent activity is an adequate indicator of what will take place in the short-run future. In this kind of analysis the ensuing year's activity is projected on a monthly or quarterly basis exactly as it has taken place in the past year. This approach is probably adequate for centers which have a relatively static inflow of patients, but falls short where services may be on an inclining or declining pattern; or where services fluctuate drastically from month to month. There are a number of statistical techniques that can be applied to historical data for more sophisticated projections including trend analysis, regression analysis and correlation analysis. A relatively simple and accurate approach is the use of least squares simple regression analysis to establish trend lines over three to five years of data. In this technique a trend is established over several years of data and the equation of that trend line is then projected into the budgeting year. Average monthly deviations from the historical trend line are then used to adjust the projected trend line to determine the monthly activity levels (see appendix 6-I). Although all of these techniques can be helpful in projecting activity, complete reliance on sterile statistical information can be dangerous. Once activity levels have been projected using statistical techniques, they should be adjusted if the organization management has knowledge which would lead them to believe activity will be something contrary to the statistical evidence.

The logical order for prediction of activity levels should start with final producing cost centers since activity levels in these centers have a direct bearing on the activity levels in support cost centers.

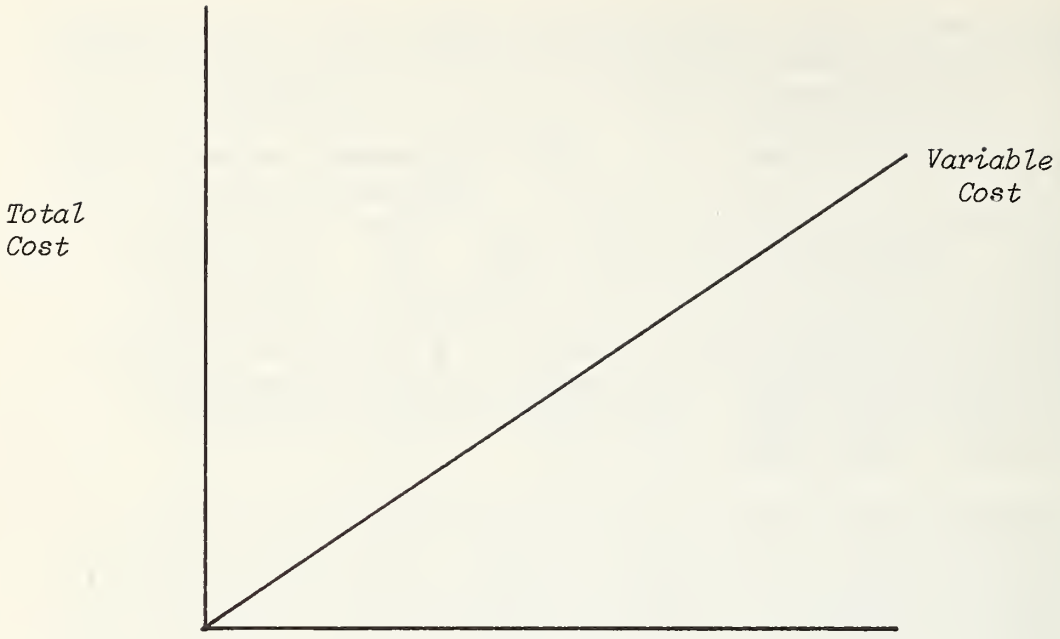
Direct Cost Estimates

The next step in budgeting involves estimating direct costs in the cost centers at the forecasted activity levels. In order to properly estimate costs one must be familiar with the behavior of various costs

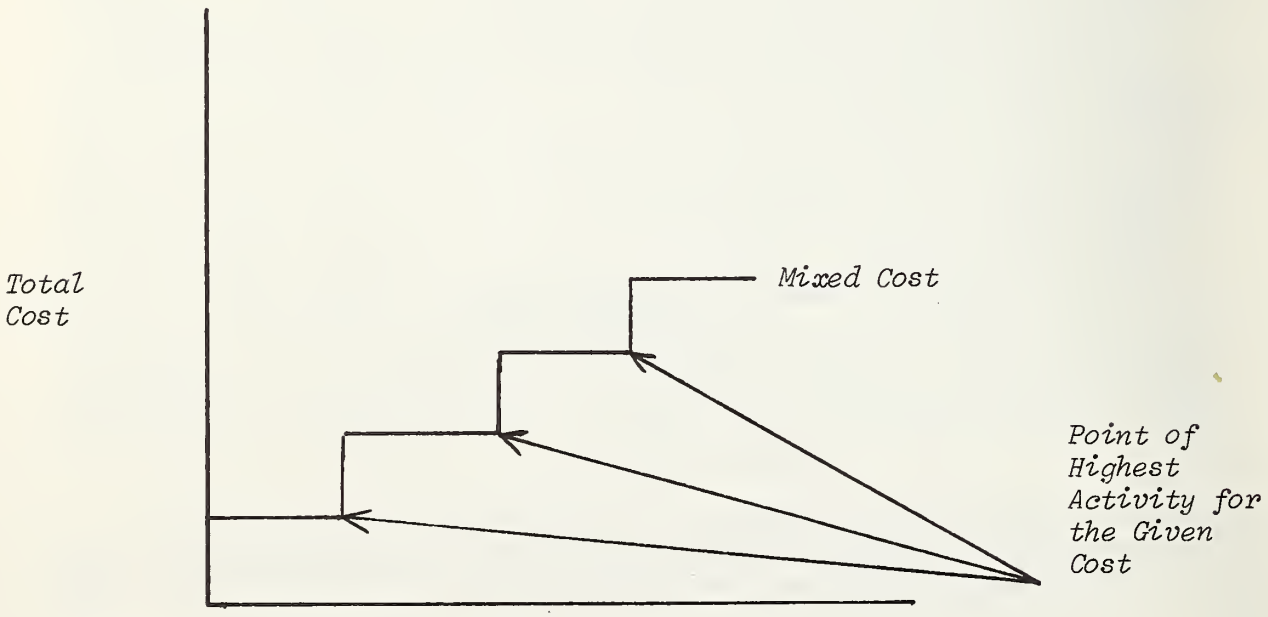
in relation to the activity unit of the cost center. There are basically three kinds of cost behavior patterns in any organization--fixed, variable, and mixed. Fixed costs remain constant in total over a short-run period regardless of activity fluctuations. Examples of fixed costs are salaries, insurance, and rent. Variable costs, on the other hand, change in total in direct proportion to changes in activity. For example, dietary costs and housekeeping may vary directly with inpatient days. Mixed costs have elements of both fixed and variable costs. These costs fluctuate with changes in activity but not in direct proportion. Professional labor costs may be mixed costs behaving in relation to activity in a step-fashion. When activity levels increase to a given point it may be necessary to add an additional staff member, thereby increasing the total cost at that given level. The following graphs illustrate the behavior of fixed, variable and mixed costs.



Fixed Cost Behavior



Variable Cost Behavior



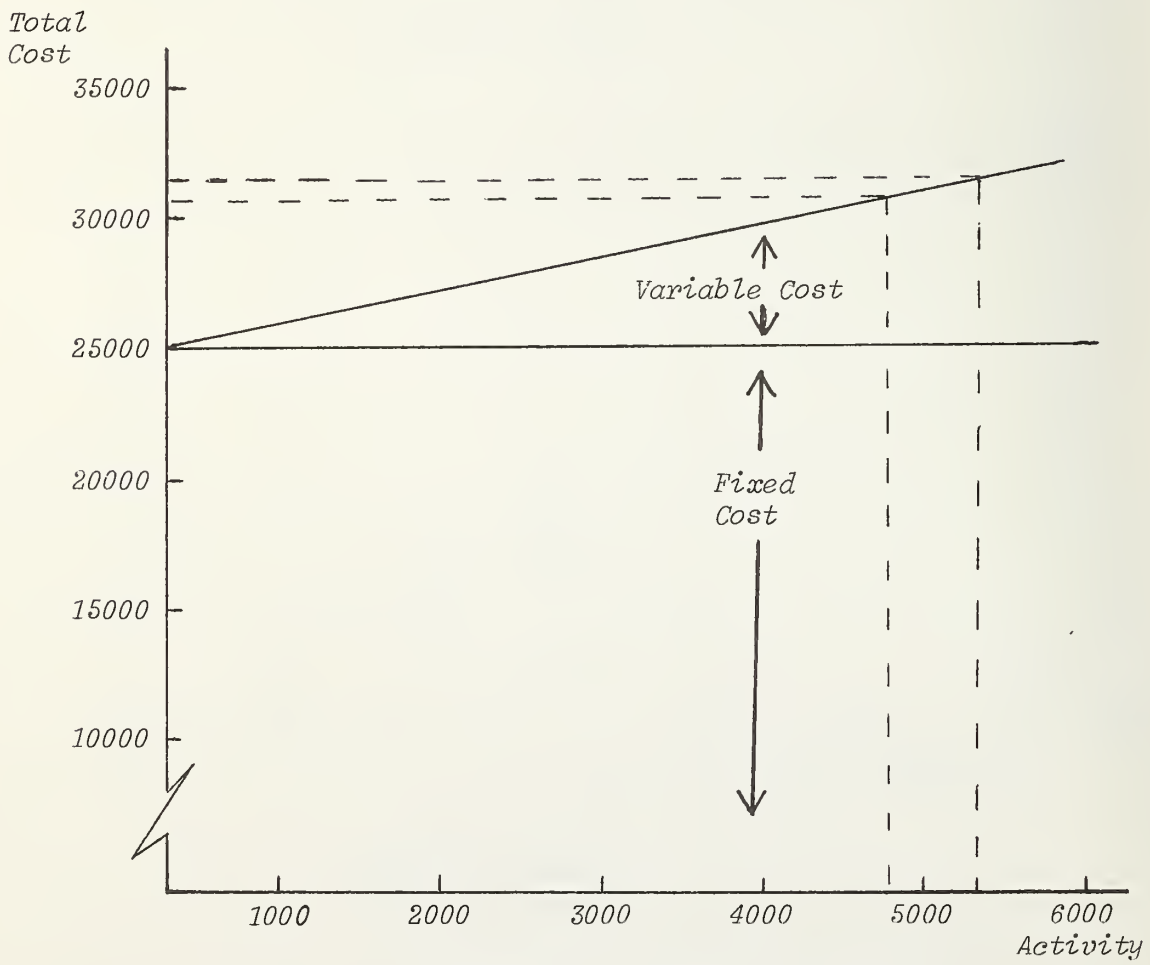
Mixed Cost Behavior
(Step-function)

	Cost	Activity
High	32,950	5300
Low	23,200	4800
Change	750	500

Change in Cost/Change in Activity = Variable rate

750/700 = $1.50

Outpatient visits	4800	4900	5000	5300
Total Cost	32200	32350	32500	32950
Variable (O/P visits X 1.50)	7200	7350	7500	7950
Fixed Cost	25000	25000	25000	25000



Segregation of Fixed and Variable Components of Mixed Costs High-Low Method

Although distinguishing between fixed and variable costs is preferable, in some centers it may be impractical. In centers where the vast majority of costs behave in a fixed pattern, it would be entirely acceptable to budget direct costs in total by cost center.

Estimation of costs again are typically based on historical data with emphasis on the most recent history. Generally the center management should not have a great deal of difficulty in estimating costs. The most difficult problem is defining whether the costs behave in fixed or variable patterns.

Allocation of Support Costs

After all direct costs have been estimated in each of the cost centers, for rate-setting purposes costs are allocated from the support cost centers to the final producing cost centers which they serve. Even though the budgeted support costs are allocated to the final producing cost centers, the responsibility for controlling these costs lies with the originating cost center. The first step in cost allocation is to determine a basis on which the allocation should be made. Typically the basis for allocation is directly related to units of service provided by the support cost center. After the allocation basis has been formulated, an approach to allocating the costs must be adopted. There are four approaches which seem to have wide utilization--direct allocation, step-down allocation, double-distribution allocation, and simultaneous equation allocation. Bases on which to allocate support costs and the various methods of allocation are explained by Sorenson and Phipps (1972, pp. 3-17 through 3-34).

Establishment of Billing Rates

From the projected total costs (fixed and variable direct costs and allocated costs) in each final producing cost center, billing rates can be developed. The reader is referred to Sorenson and Phipps (1972, pp. 5-2 through 5-24) for outlines of various techniques and examples of rate-setting based on actual or budgeted costs.

Pro-forma Statements

The final step in budget preparation is the cumulation of individual cost center budgets into a master plan (budget) for the entire center. From the master budget figures, projected financial statements and cash flow statements can be prepared which are especially valuable in the process of requesting funding.

No mention has been made about the budgeting of capital expenditures. Costs for capital improvements are an integral part of any complete budgeting system. Capital budgeting, however, is a topic which tends to be extremely involved and should be studied by itself. For that reason, a discussion of capital resource budgeting is considered to be outside the scope of this chapter.

The preceding discussion has dealt with the planning phase of budgeting. Equally as important to proper administration of a budgeting system is the evaluation of results--the control function. As actual results are recorded, they should be compared with the budget and any variance between the two should be analyzed.

Using the data developed in the foregoing discussion, let us assume that for the month of April, outpatient visits were estimated to be 5200. The budget for direct costs would be as follows:

Outpatient visits	5200
Fixed costs	25000
Variable costs (5200 @ 1.50)	7800
Total direct costs	32800

Assume that actual outpatient visits amounted to 5000 and actual costs were $36,000. The total variance between actual and budgeted costs is $3200. A portion of this variance can be attributed to higher costs at the 5000 visit level than would have been estimated using the budget formula:

Actual costs		36000
Budgeted costs @ 5000 O/P visits:		
Fixed cost	25000	
Variable cost (5000 @ 1.50)	7500	32500
Variance due to higher costs		3500

Traditionally variances due to higher or lower costs are referred to as spending variances. Actual spending is higher or lower than budgeted spending at the actual level of operation.

A further breakdown of the "higher cost" variance could also be made by determining the fixed and variable components of the actual costs and making comparisons to the budgeted amounts at the 5000 O/P visit level. More specifically, each expense account for which data are collected should be compared with the budget at the appropriate activity level.

The remaining portion of the variance can be attributed to operating at a lower level of activity than had been estimated.

Budgeted costs @ 5000 O/P visits	32500
Budgeted costs @ 5200 O/P visits	32800
Variance due to lower activity	300

Activity variances of this nature can also be calculated by multiplying the difference between actual and budgeted activity, times the variable costs rate.

Activity Variance = (Actual O/P visits-Budgeted O/P visits)X Variable Rate

Activity Variance = (5200 - 5200) X 1.50

Activity Variance = (-200) X 1.50

Activity Variance = -300

Allocated costs were purposely omitted from this analysis. Only direct costs for which the functional head has control need be analyzed for the outpatient department. Analysis of allocated costs would then take place for the individual support cost centers where the costs originated and where the responsibility for the costs lie. Another approach to variance analysis as it relates to errors in rates is explained by Sorensen and Phipps (1972, pp. 5-24 through 5-32).

SUGGESTED FORMS

Appendix 6-III presents sample forms that can be helpful in budget preparation and reporting. The forms are included in their order of use:

- Activity level projection worksheet
- Resource requirement worksheet - Labor
- Resource requirement worksheet - Supplies
- Administrative expenditure worksheet
- Cost center summary
- Center summary
- Monthly (quarterly) cost center report

The activity level projection worksheet, resource requirement worksheets, (labor and supplies), and administrative expenditure worksheet should be completed for each cost center. Supplemental forms designed in the same manner for other elements of costs also can be included. After the individual elements of cost have been projected, they should be summarized on the cost center summary. All completed cost center

summaries are in turn summarized on the center summary. The accumulated costs for cost centers and the center can be used in preparation of pro-forma financial statements and the budget column of monthly (quarterly) reports. The forms can be completed for any time period deemed appropriate (i.e., monthly, bimonthly, quarterly).

SUMMARY

Budgeting revolves around the concepts of planning and control. Planning is the objective-setting phase including a decision as to a course of action for attainment of goals. Control is the feedback and corrective action stage.

Flexible budgets on a continuous basis are preferable for control of internal operations; however, static budgets are sometimes satisfactory and often necessary where budgets are used for funding. Budget preparation begins with the estimation of activity levels in each cost center. Once activity levels have been defined, direct costs then must be projected. Distinguishing between fixed and variable cost elements is preferable but in some cases not practical. Direct costs in support cost centers must be allocated on some basis to the final producing cost centers (revenue producing) for purposes of rate-setting. After all cost center budgets have been prepared, they should be combined into a master budget which can be used for preparation of overall pro-forma financial statements.

Without feedback and follow-up in comparing actual results with the budget (control phase), the planning phase takes on little meaning.

An additional perspective on budgeting is the recently developed PPB Systems viewpoint--the program planning, budgeting systems view. The details of the PPBS approach taken by Hennepin County are reviewed by Clifford Nelson (1973).

PPB Systems

Hennepin County is subdivided into seven major programs which are: Highways, Public Safety and Judiciary, Health, Education and Recreation, Social and Economic Assistance, Public Records, and General Government. Each one of these several "level one" sections are further subdivided into three levels. With respect to Health, the "level two" (or program level) is divided into--

- physical health,
- mental health/mental retardation,
- chemical dependency,
- environmental health,
- education and research,
- general support.

At "level three" (sub-program level), mental health/mental retardation is subdivided into--

- prevention,
- therapy and rehabilitation,
- inpatient,
- mental/chemical commitment,
- general support.

At the fourth level (activity level), the distinct service units of the various agencies come into focus. For example, at the activity level under therapy and rehabilitation are the following HCMHC units:

- Circle F
- Day Treatment Program
- Adult Outpatient
- Child Outpatient
- Crisis Intervention Center
- Medical Issuance

Under the subprogram, Prevention, is the activity of Consultation and Education at the Hennepin County Mental Health Center. Under the program, Education and Research, is the Mental Health Training subprogram. A graphic view of four PPBS levels is presented in exhibit 6-2.

Approximately 6 months prior to the beginning of a new calendar year, each agency which hopes to contract with Hennepin County Area Program must submit a programmatic budget to the Area Program Office. Annually the Hennepin County Mental Health Center submits the eight programs listed above in a prescribed budgetary, narrative, and statistical package. The most important items in the package are:

- A general budget message (described in exhibit 6-3 and 6-4)
- A schedule of positions (described in exhibit 6-5 and 6-6)
- A performance output data sheet with program evaluation criteria (described in exhibit 6-7, 6-8 and 6-9)
- A program activity by line item with justification on each line item (described in exhibit 6-10 and 6-11)

Other forms included in this total package are new program justification, justification of additional positions with cost implications and schedule of conferences. In general this process is used by all agencies for the Area Program Office and County Administration.

EXHIBIT 6-2

Hennepin County PPBS Structure

Indicating Relative Placing of Service Units

At Hennepin County Mental Health Center

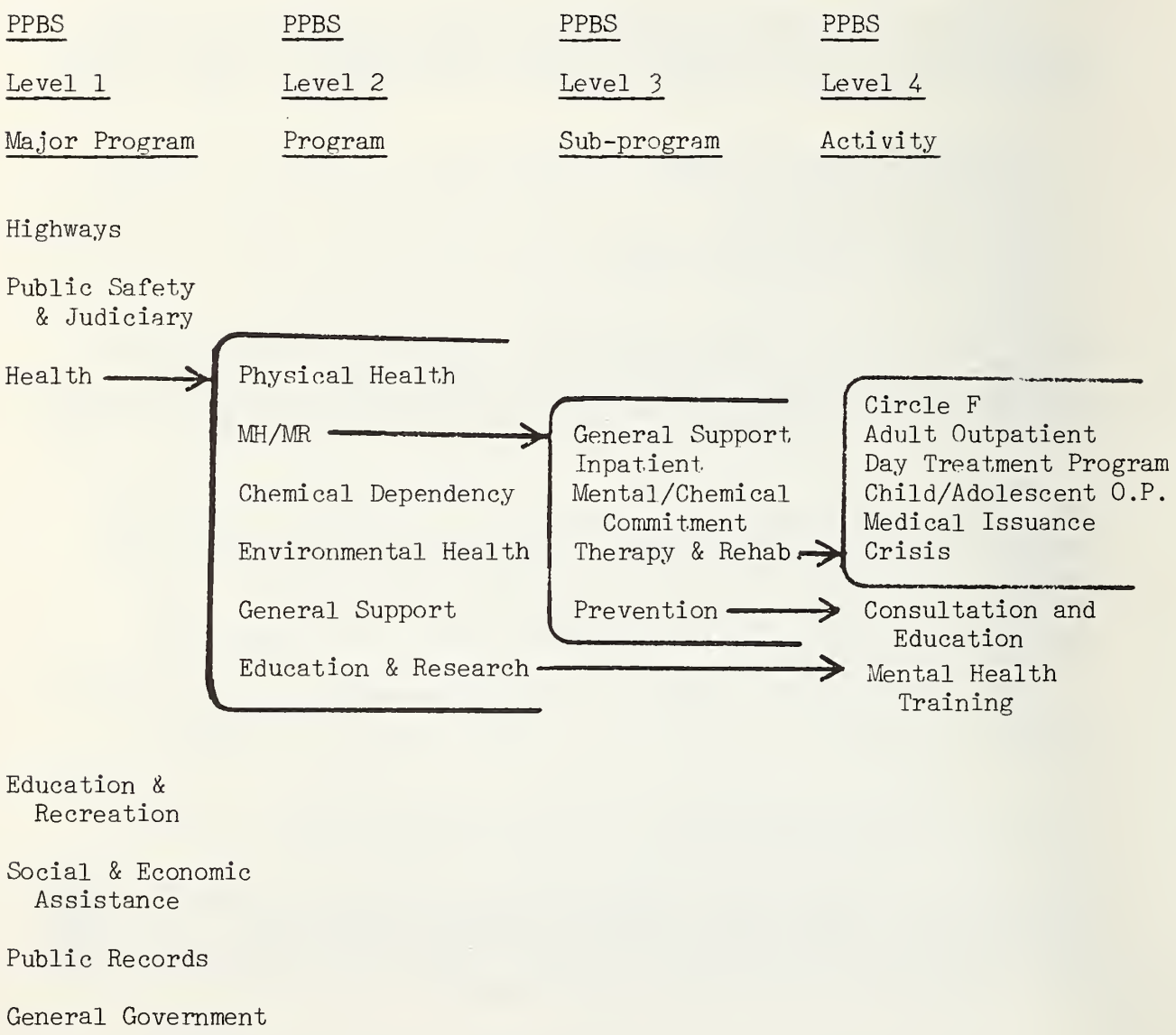


EXHIBIT 6-3

PURPOSE

This form is intended for your use in supporting your budget request with written narrative. This form is your department's program budget message.

GENERAL INSTRUCTIONS

The form is divided into two parts: "Explanation of Major Line-item Increases" and "Program Activity Plans for the Budget Year". A separate budget statement should be made for each activity or sub-program (whichever program level is lowest).

"Explanation of Major Line Item Increases" refers to those requests which constitute significant increases in your total budget. Significant increases would include increases resulting from New Programs (refer to New Program Justification) and those resulting from significant expansion of current programs.

Significant expansion is defined as any modification of an existing Program Activity so as to increase the total expenditure for that activity by more than 10% in 1973. The 10% figure should not include anticipated cost of living increases.

An explanation of major line item increases refers for the most part to supplies and expense, not to the addition of permanent positions. Acquiring consultant or contractual services would apply as a major line item increase and should be noted in the budget message.

Program activity plans include the following considerations:

A. Significant modifications in current programs.

   1. Reorganization
   2. Increased or decreased volume of activity (as it might reflect in your performance and data output).

B. Relationship of current requests to long and short-range department plans and objectives.

C. Utilization of equipment and administrative techniques which will minimize budgetary increases.

These areas of importance are not inclusive but are listed to suggest how your "Budget Message" may be of most value to your request.

EXHIBIT 6-4

MAJOR PROGRAM: PUBLIC SAFETY & JUDICIARY PROGRAM: ADMINISTRATION OF JUSTICE SUB-PROGRAM: CIVIL COURT ACTIVITY: DISTRICT COURT	HC6 R5/24 GENERAL BUDGET MESSAGE	BUDGET YEAR 1973
	DEPARTMENT DISTRICT COURT	ORGAN. CODE 3930

BUDGET NARRATIVE

THE BUDGET NARRATIVE MUST INCLUDE:

1. EXPLANATION OF MAJOR LINE ITEM INCREASES (USE ADDITIONAL PAGES IF NECESSARY)

The 1972 budget request reflects and increase of 11% over the 1971 appropriations.

The principal increase appears in personal services. An additional court referee is requested to allow the court system to keep pace with the rising number of new case filings and continue to reduce the length of the docket. (See Justification of Additional Positions). Small increases are evident throughout the budget due to inflation and slight program expansion, including the request for attendance at a new conference.

2. PROGRAM ACTIVITY PLANS FOR THE BUDGET YEAR (USE ADDITIONAL PAGES IF NECESSARY)

The Civil Calendar continues to show the impact of increased filings and an increase in the workload. The filings for 1971 are projected to increase 336 cases beyond the 1970 level. In spite of the heavy calendar, it is anticipated that the performance ratio between terminated and new cases will drop .03 due to the judge/referee manpower shortage this year. With a new court referee, however, the ratio is projected to approach 1 by the end of 1972. It is also anticipated that only 1% or less of the cases on the court docket will be 2 years old or older.

Among the variables greatly influencing the increasing civil calendar in the future will be a greater number of tax appeals filed, more government agencies filing cases (i.e. pollution, etc.) and rising personal injury cases. Given these conditions, together with increasing county population, the workload predictions developed above are as accurate as possible.

EXHIBIT 6-5

PURPOSE

This form provides the detail to support Account Numbers 8002 Salaries and Wages - Regular, and 8004 Salaries and Wages - Temporary for each activity or sub-program.

GENERAL INSTRUCTIONS

Submit two copies to Administration and one copy to the Personnel Department

DETAIL INSTRUCTIONS

1. In Column 1 (Class Title - salary range), begin by listing all full-time and part-time positions in descending order of job responsibility. This applies irrespective of existing or requested positions. Below each existing or requested position, indicate the salary range for the position.

   Again, list just those positions applicable to your stated "activity" or "sub-program". Do not list positions for more than one activity or sub-program per page.

2. In Columns 2 and 3, list the number of employees for the "current year" and those requested for the budget year. If the position is applicable to more than one activity or sub-program, indicate the proportion of time the existing or requested individual will work in any particular activity or sub-program area, (i.e., .5 or .2, etc.). Proportion in tenths only. Part-time positions should be stated in full-time equivalents, i.e., 20 hours per week - .5.

3. In Columns 4 and 5, indicate the current year cost of the positions as reflected in your budget request as well as the cost of the requested position. If the position is applicable to more than one activity or sub-program, proportion the cost accordingly. For example, if the individual's salary is $10,000 per year and he spends .5 of his time in the activity or sub-program, the reflected salary is $5,000. The other $5,000 may apply to another activity or sub-program.

4. List the budget request for each class title in Column 5. Your request should be based on the current year salary schedule plus any pro-rated merit increase(s) anticipated for the budget year. DO NOT INCLUDE AN ALLOCATION FOR A GENERAL SALARY INCREASE. If a general increase is approved, the necessary amounts will be added by the Administrative Office.

5. Provide a sub-total for all regular, full-time and part-time positions.

6. After listing the regular positions, list all temporary and seasonal positions by class title. Below each class title, place the hourly or monthly rate for the class title. Complete steps two (2), three (3), four (4) and five (5) for all temporary and seasonal positions.

7. Provide a total at the bottom of the page which includes the sub-total for regular full and part-time positions and the sub-total for all temporary and seasonal positions.

EXHIBIT 6-6

MAJOR PROGRAM: PUBLIC SAFETY & JUDICIARY PROGRAM: ADMINISTRATION OF JUSTICE SUB-PROGRAM: CIVIL COURT ACTIVITY: DISTRICT COURT	HC2 R5/24 SCHEDULE OF POSITIONS DEPARTMENT: DISTRICT COURT	BUDGET YEAR 1973 PROGRAM CODE 3930

CLASS TITLE (SALARY RANGE)	NO. OF POSITIONS		AMOUNT		FOR BUDGET OFFICE
	CURRENT YEAR	BUDGET REQUEST	CURRENT BUDGET	BUDGET REQUEST	
Judges (1500/Yr.)	12.7	12.7	19,050	19,050	
Court Referee (-405-1792)	1	2	22,668	43,002	
Court Administrator (1476-1882)	1	1	23,796	24,985	
Court Reporters (905-1048)	13.7	13.7	158,750	166,687	
Law Clerk (530-676)	1	1	7,380	7,749	
Deputy Court Clerks (530-676)	3	3	28,848	30,291	
Principal Clerk Steno (530-676)	.8	.8	7,008	7,358	
Intermediate Clerk Steno (481-613)	.3	.3	1,695	1,780	
TOTAL	33.5	34.5	269,195	300,902	

EXHIBIT 6-7

PURPOSE

This form provides the necessary data to determine the effectiveness of County programs in meeting public objectives.

GENERAL INSTRUCTIONS

Since the Budget Office will give utmost consideration to program evaluation this year it is imperative that considerable attention be given to this form.

Two kinds of performance data are required. First, output or volume indicators are to be cited. Second, outcome or effectiveness data is to be provided. For further clarification of the types of criteria to be used, see the "Program Evaluation Criteria" paper included with the Budget Aids.

DETAIL INSTRUCTIONS

Population of Need---In this space put the target population (all those eligible who need the service) for the particular activity involved.

Population Covered by the Program---In this space put the number of people now being served. It is expected that this figure would be lower than the population of need.

Measures of Effectiveness---Provide both output and outcome data for 1971 (actual), 1972 estimated based on experience to date, and 1973 estimated based on the expected effects of program expansion, etc.

EXHIBIT 6-8

MAJOR PROGRAM: PUBLIC SAFET JUDICIARY PROGRAM: ADMINISTRATION OF JUSTICE SUB-PROGRAM: CIVIL COURT ACTIVITY: DISTRICT COURT	HC34 PERFORMANCE OUTPUT DATA	BUDGET YEAR 1973
	DEPARTMENT DISTRICT COURT	PROGRAM CODE 3930

POPULATION OF NEED	POPULATION COVERED BY PROGRAM
Not applicable to District Court	Not applicable to District Court

MEASURES OF EFFECTIVENESS	1971 ACTUAL	1972 ESTIMATED	1973 ESTIMATED
1. OUTPUT DATA (QUANTITY OR VOLUME)			
QUANTITY			
Number of new cases filed	5334	5670	5800
Number of cases terminated	5240	5400	5800
Ratio: terminated cases/new cases	.982	.952	1
2. OUTCOME DATA (EFFECTIVENESS CRITERIA)			
QUALITY			
Length of Court docket (as of Dec. 31)*	4489	4300	4150
% cases less than 1 year old	75%	75%	75%
% cases 1 - 2 years old	20%	22%	24%
% cases over 2 years old	5%	3%	1%
Number of cases appealed	78	90	110
Number of appeals sustained	70	84	105
Ratio: appeals sustained/total appealed	.897	.933	.954

* An urban metropolitan court is considered current when 75% of the cases are less than one year old and 25% of the cases are between one and two years old. (National Association of Court Administrative Officers)

To perform evaluation or determine cost-effectiveness, it is necessary to identify specific criteria that can be used to evaluate performance against the program objectives. For example, if a governmental objective such as "to reduce crime" was identified, then it would be appropriate to use crime rates as the major criterion (but not necessarily the only criterion) for evaluation activities aiming at these objectives.

There are a number of factors which should be kept in mind when selecting evaluation criteria:

1) The selection of criteria depends upon the objectives that are formulated;

2) Both objectives and criteria are intended to be end oriented rather than means oriented. They are intended to reflect what is ultimately desired to be accomplished, and for whom, not ways to accomplish such objectives;

3) The criteria for evaluation should have the following:

   a) each criterion should be relevant and important to the specific problem,

   b) together the criteria used should consider all major effects relative to the objectives,

   c) each of the criteria really should be capable of meaningful quantification.

What follows is an illustrative list of criteria for the evaluation of proposed programs which might serve to guide you in choosing evaluation criteria relevant to your program.

I. LAW ENFORCEMENT

Objective: To reduce the amount and effects of crime and in general to maintain an atmosphere of personal security from criminal behavior. (To some persons the punishment of criminals may be an important objective in itself as well as a means to deter further crimes.)

1) Annual number of offenses for each major class of crime (or reduction from the base in the number of crimes).

2) Crime rates, as for example, the number per 1,000 inhabitants per year, for each major class of crime.

3) Crime rate index that includes all offenses of a particular type (e.g., "crimes of violence" or "crimes against property") perhaps weighted as to seriousness of each class of offense.

4) Number and percent of populace committing "criminal" acts during the year. (This is a less common way to express the magnitude of the crime problem; it is criminal oriented rather than "crime oriented.")

5) Annual value of property lost (adjusted for price-level changes). This value might also be expressed as a percent of the total property value in the community.

6) An index of overall community "feeling of security" from crime, perhaps based on public opinion polls and/or opinions of experts.

7) Percent of reported crimes cleared by arrest and "assignment of guilt" by a court.

8) Average time between occurance of crime and apprehension of the criminal.[1]

9) Number of apparently justified complaints of police excesses by private citizens, perhaps as adjudged by the police review board.

10) Number of persons subsequently found to be innocent who were punished and/or simply arrested.

Notes:

a) Criteria 1 through 6 are criteria for the evaluation of crime-prevention programs. Criteria 7 and 8 are aimed at evaluating crime control after crimes have occurred (i.e., when crime prevention has failed). Criteria 9 and 10 and to some extent 6 aim at the avoidance of law-enforcement practices that themselves have an adverse effect upon personal safety. Criterion 6 and to some extent 8 aim at indicating the presence of a fearful, insecure atmosphere in the locality.

b) Some argue that the primary function of criminal apprehension and punishment is to prevent future crimes; and, therefore, that criteria 7 and 8 would not be sufficiently "end oriented," but rather "means" oriented, and would not be included in the list.

---

[1] A major purpose of criterion 8 as used in this list is to reflect the psychological reduction in anxiety due to the length of this time period. Note that it is not the purpose of this or any of these criteria to evaluate the efficiency of the police organization.

c) For many analyses it would probably be appropriate to distinguish crime activity by the type of criminal, including such characteristics as age, sex, family income, etc. (Juvenile delinquency is an obvious subcategory.)

II. HEALTH

Objective: To improve the physical and mental health of the citizenry, including reduction of the number, length, and severity of illness and disabilities.

1. Incidence of illness and prevalance (number and rates).[2] (Armed Forces rates of rejection for health reasons of persons from the jurisdiction could be used as a partial criterion.)

2. Annual mortality rates by major cause and for total population.[3]

3. Life expectancy by age groups.

4. Average number of days of restricted activity, bed confinement, and medically attended days per person per year. (Such terms as "restricted activity" need to be clearly and thoroughly defined. Also, probably more than one level of severity of illness should be identified.)

5. Average number of workdays per person lost due to illness per year.

6. Total and per capita number of school days lost owning to illness per year.

7. Number of illnesses prevented, deaths averted, and restricted-activity days averted per year as compared with the base. This is primarily a different form of such criteria as 1 through 6.

8. Average number of days of restricted activity, of bed confinement, and of medically attended days per illness per year.

9. Number and percent of patients "cured" (of specific types of illnesses and various degrees of cure).

10. Some measures of the average degree of pain and suffering per illness. (Though there seems to be no such measure currently in use, some rough index of pain and suffering could probably be developed.)

---

[2]Here and in the following material the term "illness" is also intended to cover disability and impairments.

[3]Suicide rates should be included; these are likely to provide some indication of the overall mental health of the community. Note that reducing mortality from certain causes would presumably increase mortality from other causes. Life expectancy, criterion 3, is thus more important as an overall criterion.

11. Some measure, perhaps from a sampling of experts and of patients, as to the average amount of unpleasantness (including consideration of the environment in the care area) associated with the care and cure of illness.

12. Number or percent of persons with after effects, of different degrees, after "cure".

13. Number or percent of persons needing but unable to afford "appropriate health care" -- both before receiving public assistance and after including any public assistance received.

14. Number or percent of persons needing but unable to receive "appropriate health care" because of insufficient facilities or services.

Notes:

(a) A number of sub-objectives can be identified for this major program area. Those sub-objectives and the criteria that attempt to measure each are as follows:

1. Prevention of illness - criteria 1 through 7.

2. "Cure" of patient when illness occurs including reduction of its duration -- criteria 1 through 9.

3. Reduction of unpleasantness, suffering, anxiety, etc., associated with illness -- criteria 10 and 11.

4. Reduction of after effects -- criterion 12.

5. Making necessary health care available to the "needy" -- criteria 13 and 14.

Note, however, that during consideration of the overall problem of health, these sub-objectives will often compete with each other. For example, with limited funds, they might be applied to programs aimed primarily at preventing an illness or at reducing its severity (or at some mix of these programs). Also note that criteria 1 through 7 are affected by programs that are directed at curing illnesses as well as those directed at preventing them.

(b) The criteria can be defined to distinguish among specific types of illnesses as well as to consider the aggregate effect on individuals of all possible illnesses. For certain problems the incidence of a specific disease may be of concern; whereas, for other problems the incidence of illness per person per year, regardless of specific disease, might be the appropriate criterion. One such breakdown which is very likely to be desirable, distinguishes mental health from physical health, though even here there will be interactions.

(c) Note that such common measures as "hospital-bed capacity" or "utilization rates of available medical facilities" are not included above since there are not fundamental indicators of the effectiveness of health programs.

(d) As with most of the major program areas, program analyses will need to consider the contributions of other sectors, including private institutions and activities undertaken by other jurisdictions.

(e) The role of governmental jurisdictions may emphasize health services for certain specific target groups such as the needy, and the very young. Therefore, it will frequently be appropriate to distinguish target groups by such characteristics as family income, race, family size, and age group.

EXHIBIT 6-10

PURPOSE	These forms provide a detailed financial recounting by line-item for your department by activity or sub-program (whichever level is lowest on your program budget).
GENERAL INSTRUCTIONS	Columns 3 (1971 Budget), 4(1972 Budget) and 5 (1973 Departmental Request) are to be completed indicating the program budget request for 1971 and 1972 in column 3 and 4, and your departmental request in Column 5. Submit two copies to Administration and keep one for your reference.
SPECIFIC INSTRUCTIONS	Column 3 (1971 Budget) and Column 4 (1972 Budget) should coincide with the dollar figures reflected in the 1972 program budget for those years. Column 5 (1973 Departmental Request) represents the total department request for each activity or sub-program (whichever is applicable).

MAJOR PROGRAM: PUBLIC SAFE[illegible] & JUDICIAL | PROGRAM ACTI[illegible] BY LINE-ITEM HC 1A R5/24 | BUDGET YEAR 1973

PROGRAM: ADMINISTRAT[illegible] OF JUSTI[illegible]

SUB-PROGRAM: CIVIL COURT | DEPARTMENT: DISTRICT COURT | PROGRAM CODE 3930

ACTIVITY: DISTRICT COURT

ACCOUNT NO.	DESCRIPTION	B	1972 BUDGET	1973 DEPARTMENT REQUEST	FOR BUDGET OFFICE RECOMMENDATION	FOR BUDGET OFFICE APPROPRIATION
	PERSONAL SERVICES (8000)					
8002	Salaries - Regular	26	300,902	345,865		
8004	Salaries - Temporary					
8006	Overtime Payment					
8008	Intern Stipend				EXHIBIT 6-11	
8010	Resident Stipend					
8012	Isolation Duty					
8014	On-Call Payment					
8016	Emergency Services					
8018	Special Duty Nurse Service					
8020	Shift Differential Payments					
8022	Sunday Differential Payments					
8024	Teaching Differential Payments					
8026	U of M Affiliation					
8050	Group Health Insurance			1,050		
8052	Group Life Insurance			504		
8054	Hospital Insurance			6,300		
8060	FICA			16,984		
8062	PERA	21	29,188	15,564		
8064	MERA					
8066	Severance Payments			1,000		
8068	Stability Payments		1,804	2,255		
8070	1% Supplemental					
8080	Other Personal Services	3	31,063	31,063		
8099	Personal Services-Contractual					
	Sub-total	32	362,957	420,585		
	COMMODITIES (8100)					
8102	Office Supplies and Forms	6	7,500	8,000		
8104	Film and Photographic					
8106	X-Ray Film and Supplies					
8110	General Supplies		50	50		
8112	Training and Library					
8120	Food and Beverages					
8130	Clothing and Linens					
8132	Housekeeping and Cleaning					
8134	Kitchen and Dining					
8140	Surgical and Medical					
8142	Drugs and Medicine					
8144	I. V. Solutions and Sets					
8146	Blood Supplies					
8148	Oxygen and Nitrous					
8150	Laboratory					
8160	Petroleum Products					
8162	Aggregate Materials					
8164	Bituminous Materials					
8166	Chemical Products					
8168	Landscape Materials					
8170	Building & Equip. Maintenance					
8172	Highway Traffic Products					
8174	Concrete Products					

ACCT. NO.	DESCRIPTION	1971 BUDG	1972 BUDGET	1973 DEPARTMENT REQUEST	FOR BUDGET OFFICE RECOMMENDATION	FOR BUDGET OFFICE APPROPRIATION
	COMMODITIES (CONTINUED)					
8180	Automotive					
8197	Inventory Shortage (Overage)					
8198	Inventory Issued					
8199	Commodities - Contractual					
	Sub-total	6,4	7,550	8,050		
	SERVICES (8200)				EXHIBIT 6-11 (Continued)	
8206	Auditing					
8209	Book Binding					
8212	Consulting					
8215	Data Processing					
8218	Freight					
8221	Janitorial and Waste					
8224	Jurors					
8227	Maint. & Repair - Buildings					
8229	Maint. & Repair - Equipment	65(	650	650		
8231	Maint. & Repair - Rental Prop.					
8233	Mileage & Insurance Allowance	30	300	300		
8236	Postage	2,0(	3,500	3,800		
8239	Printing	2	300	400		
8242	Protective					
8245	Publishing					
8248	Rental - Building					
8250	Rental - Equipment					
8252	Rental - Med. & Surg. Equip.					
8254	Rental - Comp. & Office Equip.		100	200		
8256	Rental - Other					
8260	Service Agreements					
8263	U of M Hospital Services					
8266	Communication					
8268	Heating					
8270	Power and Light					
8272	Water and Sewer					
8275	Witnesses					
8290	Other Services					
8299	Services - Contractual					
	Sub-total	3,	4,850	5,350		
	OTHER CHARGES (8400)					
8405	Amor. of Bond Discounts					
8409	Amor.-Premium or Discounts					
8415	Awards and Contributions					
8417	Bads Debts					
8420	Conferences and Tuition	]	1,950	1,950		
8425	Court Trial					
8430	Depreciation and Amortization					
8435	Election					
8445	Insurance - General					
8450	Interest					
8455	Licenses, Taxes and Fees		50	50		
8460	Membership Dues		35	35		
8465	Over and Short					

ACCT. NO.	DESCRIPTION	B'	1972 BUDGET	1973 DEPARTMENT REQUEST	FOR BUDGET OFFICE RECOMMENDATION	FOR BUDGET OFFICE APPROPRIATION
	OTHER CHARGES (CONTINUED)					
70	Publications & Periodicals		6,500	5,700		
490	Prior Yr. (Under) Over Encum.					
8495	Miscellaneous					
8499	Other Charges - Contractual					
	Sub-total		8,535	7,735		
	CAPITAL OUTLAY (8600)				EXHIBIT 6-11 (Continued)	
8605	Land					
8610	Buildings					
8615	Machinery and Equipment					
8620	Mobile					
8625	Office Furn. & Equipment		2,500	3,200		
8630	Leasehold Improvements					
8635	Construction in Progress					
8640	Library Books					
8642	Lib. Periodicals & Newspapers					
8644	Library Binding					
8650	State Aid "A"					
8652	State Aid "B"					
8654	State Highway Turnback					
8660	Mill Levy Contracts					
8665	Federal Aid Contracts					
670	Highway "598" Levy Constr.					
672	Highway "598" Right-of-Way					
8680	Lake Improvement					
8685	Participating Construction					
8690	Aid to Municipalities					
	Sub-total		2,500	3,200		
	TOTAL					
	RECAPITULATION					
8000	Personal Services	322	52,957	420,585		
8100	Commodities	6	7,550	8,050		
8200	Services	[illegible]	4,850	5,350		
8400	Other Charges		8,535	7,735		
8500	Public Aid Assistance		--	--		
8600	Capital Outlay		2,500	3,200		
	TOTAL	[illegible]	386,392	444,920		

ID R5/24

ACCOUNT NO.	DESCRIPTION	I BI	1972 BUDGET	1973 DEPARTMENT REQUEST	FOR BUDGET OFFICE RECOMMENDATION	FOR BUDGET OFFICE APPROPRIATION
	PUBLIC AID ASSISTANCE (8500)					
8502	Old Age Assistance					
8504	Funeral Assistance					
8506	A.F.D.C. - General					
8508	A.F.D.C. - Foster Care					
8510	A.F.D.C. - Camp					
8512	A.F.D.C. - Homemakers					
8514	Emergency Assistance					
8516	Work Incentive Child Care					
8518	Aid to Disabled					
8520	A.D. - Mentally Deficient					
8522	Aid to Disabled - Tuition					
8524	A.D. - Homemakers					
8526	Aid to Blind					
8528	Aid to Blind - Homemakers					
8530	Child Welfare - St. Guardian.					
8532	Child Welfare-Temp. Co. Care					
8534	Group Home Shelter Care					
8536	Unmarried Mothers					
8538	Ment. Retarded Foster Care					
8540	Ment. Retard-Day Activity Ctr.					
8542	Emotion. Handicapp Child Care					
8544	O. T. I.					
8546	Cuban Relief					
8548	Emergency Relief					
8550	Food Stamp Program					
8552	Medical Assistance					
8560	Pilot City					
8562	M.A. - A.D. - M.A.					
8564	Service Payments for Clients					
8570	Hospital - Court Services					
8572	Boarding Care - Court Services					
8580	O.A.A.					
8582	A.D.					
8584	Children Under St. Guardian.					
8586	Ment. Retarded & Epiliptic					
	Sub-total					

EXHIBIT 6-11
(Continued)

Program Evaluation and Cost Effectiveness. The significant value in the above package is hoped for ability to perform program evaluation and cost effectiveness for specific programs and activities. Identifying specific criteria to evaluate performance against programmatic objectives is crucial and in developing or selecting evaluation criteria, there are a number of factors which must be observed:

- The selection of evaluation criteria depends upon the objectives formulated for each unit of service.
- Both objectives and criteria should be end-oriented rather than means-oriented (they are to reflect what is ultimately desired to be accomplished and for whom, and not ways to accomplish such objectives).
- The criteria for evaluation should possess the following characteristics:
  - Each criterion should be relevant and important to the specific problem.
  - Together the criteria used should consider all major effects of the objectives.
  - Each of the criteria should be capable of meaningful quantification.

There are basically two types of data which are required as measures of effectiveness:

- Output data, which indicates the quantity or volume
- Outcome data, which denotes the effectiveness criteria

Budget Process. Following approval by the County Board, a budget report is prepared for the entire county by program with a page for each activity. Included as exhibits 6-12 to 6-14 are copies from the 1973 county budget three of the eight activity units in Hennepin County Mental Health Center. These exhibits indicate the objectives of that particular activity, a brief description of that unit, and some of the program performance data which will be collected.

Following the submittal and approval of a budget, the budget is implemented. As a logical sequence for implementation of a budget, an accounting system subsystem must be in effect to report on how the organization is doing with regard to its budget plan.

HENNEPIN COUNTY

DEPARTMENT	FUND
GENERAL HOSPITAL (4000)	HOSPITAL

PROGRAM	MENTAL HEALTH/MENTAL RETARDATION
SUB-PROGRAM	THERAPY AND REHABILITATION
ACTIVITY	ADULT OUTPATIENT (1840)

OBJECTIVE

To restore and improve the socio-psychological functioning of adults as individuals and family members.

DESCRIPTION

Adult Outpatient Unit of the Mental Health Center endeavors to assure direct mental health services to a large number of individuals with varying degrees of morbidity who are unable to receive it elsewhere. Nearly half of the patients are self referred while others come from other medical facilities and agencies including County Welfare. Court Services, Public Health Nursing and other social agencies. Services include individual psychiatric, psychological or social evaluations of individuals and families.

PROGRAM/PERFORMANCE DATA

	1971 Actual	1972 Est.	1973 Est.
No. of new patients	2,136	2,205	2,000
Referred elsewhere	617	713	700
Retained as patients	1,519	1,492	1,300
No. active patients on 12/31	2,840	2,840	2,700
Total Patient Visits	16,330	16,304	15,500
Median no. visits/retained patients	9.5	8.3	9.0
Individual therapy visits/year	5,319	5,340	4,500
Group therapy visits/year	3,433	4,056	5,000
Family therapy visits/year	541	456	450
Short term Drug Clinic visits/year	110	440	450
Other (MPC/APC) chemotherapy visits/year		2,772	2,800

BUDGET	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
8000 PERSONAL SERVICES	346,199	360,997	333,609	331,342
8100 COMMODITIES	41,111	41,111	300	300
8200 SERVICES	30,406	30,406	61,100	53,181
8400 OTHER CHARGES	36,155	44,080	9,573	1,120
8500 PUBLIC AID ASSISTANCE	-0-	-0-	-0-	-0-
8600 CAPITAL OUTLAY	1,159	1,159	-0-	
TOTAL	455,030	477,753	404,582	385,943

PERSONNEL	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
ADMINISTRATIVE	2.0	2.0	2.6	2.6
PROFESSIONAL	14.0	14.0	8.9	8.9
TECHNICAL PARA-PROFESSIONAL	-	-	-	-
SEMI-SKILLED SKILLED	-	-	-	-
CLERICAL	-	-	6.4	6.4
TOTAL	16.0	16.0	17.9	17.9

PAGE _____
COST CENTER _____
ACTIVITY _____

1973 BUDGET

HENNEPIN COUNTY

DEPARTMENT	MENTAL HEALTH-MENTAL RETARDATION (4900)
FUND	COUNTY REVENUE

MAJOR PROGRAM	HEALTH
PROGRAM	MENTAL HEALTH-MENTAL RETARDATION
SUB-PROGRAM	THERAPY AND REHABILITATION
ACTIVITY	CRISIS INTERVENTION CENTER (1860)

OBJECTIVE

To provide immediate, 24-hour services to persons experiencing an emotional crisis.

DESCRIPTION

The staff will screen, evaluate, treat, refer and follow-up individuals who are in an emotional crisis or are referred by an agency or professional that believe an emergency exists. By treatment we mean short term crisis intervention aimed at crisis resolution. If further treatment is necessary, referral will be made either within the hospital or elsewhere. Program and case related consultation and education will be provided to the community.

PROGRAM/PERFORMANCE DATA

	1971 Actual	1972 Est.	1973 Est.
Total number of contacts (6 months)	9,473	19,136	20,000
a) Walk-in visits	3,437	7,020	7,000
b) Crisis-Suicide calls	6,036	12,116	13,000
Psych. resident consultations	-	2,340	2,400

BUDGET	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
8000 PERSONAL SERVICES	-0-	-0-	-0-	-0-
8100 COMMODITIES	-0-	-0-	-0-	-0-
8200 SERVICES	206,411	341,084	337,408	310,000
8400 OTHER CHARGES	-0-	-0-	-0-	-0-
8500 PUBLIC AID ASSISTANCE	-0-	-0-	-0-	-0-
8600 CAPITAL OUTLAY	-0-	-0-	-0-	-0-
TOTAL	206,411	341,084	337,408	310,000

PERSONNEL	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
ADMINISTRATIVE	0.2	0.2	1.1	1.1
PROFESSIONAL	9.2	9.2	8.9	8.9
TECHNICAL PARA-PROFESSIONAL	-	-	-	-
SEMI-SKILLED SKILLED	4.5	4.5	4.4	4.4
CLERICAL	3.1	3.1	1.8	1.8
TOTAL	17.0	17.0	16.2	16.2

1973 BUDGET

MAJOR PROGRAM	HEALTH
PROGRAM	MENTAL HEALTH/MENTAL RETARDATION
SUB-PROGRAM	THERAPY AND REHABILITATION
ACTIVITY	MEDICATION ISSUANCE (1870)

DEPARTMENT	FUND
GENERAL HOSPITAL (4000)	HOSPITAL

OBJECTIVE

To provide the proper medications and counseling services to health treatment programs and state institutions.

DESCRIPTION

Hennepin County Mental Health Center provides most of the medication services paid for by the County in the mental health field. The pharmacy at General Hospital supplies drugs as requested to the Mental Health Clinics and patients.

PROGRAM/PERFORMANCE DATA

	1971 Actual	1972 Est.	1973 Est.
No. of new patients	258	300	300
No. of active patients, 12/31	1,200	1,200	1,200
Total patient visits/year	5,642	5,640	5,600
Average no. visits/patients/year	4,6	4.6	4.6

BUDGET	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
8000 PERSONAL SERVICES	109,105	115,431	63,368	62,108
8100 COMMODITIES	12,873	12,873	70,375	70,375
8200 SERVICES	9,357	9,357	5,138	6,229
8400 OTHER CHARGES	8,986	8,986	1,776	208
8500 PUBLIC AID ASSISTANCE	-0-	-0-	-0-	-0-
8600 CAPITAL OUTLAY	356	356	-0-	-0-
TOTAL	140,677	147,003	140,657	138,920

PERSONNEL	1971 BUDGET	1972 BUDGET	1973 PROPOSED	1973 APPROVED
ADMINISTRATIVE	1.5	1.5	0.6	0.6
PROFESSIONAL	1.0	1.0	1.6	1.6
TECHNICAL PARA-PROFESSIONAL	-	-	-	-
SEMI-SKILLED SKILLED	-	-	-	-
CLERICAL	-	-	1.1	1.1
TOTAL	2.5	2.5	3.3	3.3

REFERENCES FOR CHAPTER 6

Horngren, op. cit., 1972 (see chapter 2 references).

Nelson, op. cit., 1973 (see chapter 3 refrences).

Smith, Todd. "Budgeting and Responsibility Accounting for Community Mental Health Centers." College of Business Administration, University of Denver, Denver, Colorado, 1973.

Sorensen and Phipps, op. cit., 1972 (see chapter 5 references).

APPENDIX 6-I

Todd Smith

PROJECTION OF INPATIENT DAYS THROUGH A SIMPLIFIED VERSION OF LEAST-SQUARES LINE FITTING

The following illustration demonstrates how least-squares regression analysis can be used to project inpatient days. First a straight line representing trend is calculated for inpatient days by month over a period of time. This example, for simplicity uses only six months. A larger time frame for calculating the trend line is preferable and will in all probability produce more accurate projections. "Canned" time-sharing computer programs are available for this technique.

a. Data for 6 months

Months	Period Number	Inpatient Days
January	1	5100
February	2	4900
March	3	5100
April	4	5000
May	5	5200
June	6	5300
Total	21	30600
Mean	3.5	5100

b. Calculation of slope and y-intercept of a trend line

Period Number	-	Mean	= x	x^2
1	-	3.5	⟨2.5⟩	6.25
2	-	3.5	⟨1.5⟩	2.25
3	-	3.5	⟨ .5⟩	.25
4	-	3.5	.5	.25
5	-	3.5	1.5	2.25
6	-	3.5	2.5	6.25
				17.50

Period	Actual Days	-	Mean	=	y	x	x*y
1	5100	-	5100		-	2.5	-
2	4900	-	5100		(200)	1.5	300
3	5100	-	5100		-	.5	-
4	5000	-	5100		(100)	.5	(50)
5	5200	-	5100		100	1.5	150
6	5300	-	5100		200	2.5	500
					Total		900

Formula for slope (b)

$$b = \frac{\sum x*y}{\sum (x^2)}$$

$$b = \frac{900}{17.5}$$

$$b = 51.43$$

Formula for Y-intercept (a)

$$a = \text{Mean of } Y - [(\text{Mean of } X) * a]$$

$$a = 5100 - (3.5 * 51.43)$$

$$a = 5100 - 180$$

$$a = 4920$$

Formula for a straight line

$$Y_c = bX + a$$

$$Y_c = 51.43X + 4920 \quad \text{Straight line for above data}$$

The next step is to project the line just calculated over the ensuing six month period (or more) by substituting period numbers (7-12) for X to calculate Y or inpatient days. The projected inpatient days (Y) as calculated can be adjusted by percentages of deviations of actual historical Y and calculated historical Y_c.

a. Calculation of historical Y_c and deviation of actual historical Y from calculated historical Y_c.

Formula for Y_c

$Y_c = 51.43X + 4920$

Period Number	Formula		Y_c	-	Y		Diff	C % Diff
1	51.43(1) + 4920	=	4971	-	5100	=	⟨129⟩	⟨2.6⟩
2	51.43(2) + 4920	=	5023	-	4900	=	⟨123⟩	⟨2.4⟩
3	51.43(3) + 4920	=	5074	-	5100	=	26	.5
4	51.43(4) + 4920	=	5125	-	5000	=	⟨125⟩	⟨2.4⟩
5	51.43(5) + 4920	=	5177	-	5200	=	23	.4
6	51.43(6) + 4920	=	5229	-	5300	=	71	1.4

b. Calculation of projected inpatient days (Yp) for periods 7-12 as adjusted.

Formula for Yp

$Yp = Y_c + (C/100) * Y_c$

$Y_c = (51.43x + 4920) + [(C/100) * (51.43x + 4920)]$

Month	Period Number	Formula		Yp
July	7	[51.43(7)+4920] + [(-2.6/100)*(51.43(7)+4920)]	=	5143
August	8	[51.43(8)+4920] + [(-2.4/100)*(5143(8)+4920)]	=	5203
September	9	[51.43(9)+4920] + [(.5/100)*(51.43(9)+4920)]	=	5410
October	10	[51.43(10)+4920] + [(-2.4/100)*(51.43(10)+4920)]	=	5304
November	11	[51.43(11)+4920] + [(.4/100)*(51.43(11)+4920)]	=	5508
December	12	[51.43(12)+4920] + [(1.4/100)*(51.43(12)+4920)]	=	5615

APPENDIX 6-II

James E. Sorensen and David W. Phipps

SEPARATION OF FIXED AND VARIABLE EXPENSES THROUGH A SIMPLIFIED VERSION OF LEAST-SQUARES REGRESSION ANALYSIS

While specific expenses can be classified as fixed or variable in their behavior, many times the separation of these two types is more easily done through regression analysis of a center's levels of activity and corresponding levels of expense extracted from the statistical and accounting systems. A given center may have access to remote computer terminals and "canned" regression analysis programs that will identify the fixed and variable components in the costs of that center; if this capability is not available, there are simplified manual methods which enable this separation; and one such approach is illustrated in this appendix for the outpatient expenses. In any event, the illustration should be helpful to those who are interested in improving their understanding of the application of a statistical technique to improve the cost and budget information of a Community Mental Health Center:

a. data for 4 months to illustrate the technique:

Month	Outpatient visits	Expense
January	5,000	$ 32,500
February	4,800	32,200
March	4,900	32,350
April	5,300	32,950
Totals	20,000	$130,000

mean values 5,000 = 20,000/4 $32,500 = 130,000/4

b. calculation of slope or variable expense per visit:

Month	Actual visits	- mean visits	= difference (x)
January	5,000	- 5,000	= ---
February	4,800	- 5,000	= -200
March	4,900	- 5,000	= -100
April	5,300	- 5,000	= +300

Month	Actual expense	- mean expense	= difference (y)
January	$32,500	- $32,500	= ---
February	32,200	- 32,500	= -300
March	32,350	- 32,500	= -150
April	32,950	- 32,500	= +450

Formula for slope or variable expense per visit:

$$\frac{\sum(x * y)}{\sum(x^2)}$$

computations: for $\sum(x * Y)$

Month	(x)	times (y)	equals product
January	0	0	0
February	-200	-300	+ 60,000
March	-100	-150	+ 15,000
April	+300	+450	+135,000
total			210,000

for $\sum(x^2)$

Month	(x)	(x^2)
January	0	0
February	-200	+ 40,000
March	-100	+ 10,000
April	+300	+ 90,000
		140,000

$$\frac{\sum(x * y)}{\sum(x^2)} = \frac{210,000}{140,000} = \$1.50 \text{ for each visit}$$

Formula for intercept or fixed expense:

average expense - average * variable expense = fixed expense per visit

($32,500) - (5,000 * $1.50) = $25,000

c. Budget function for outpatient expenses:

Budgeted expense = $25,000 + $1.50 * number of visits

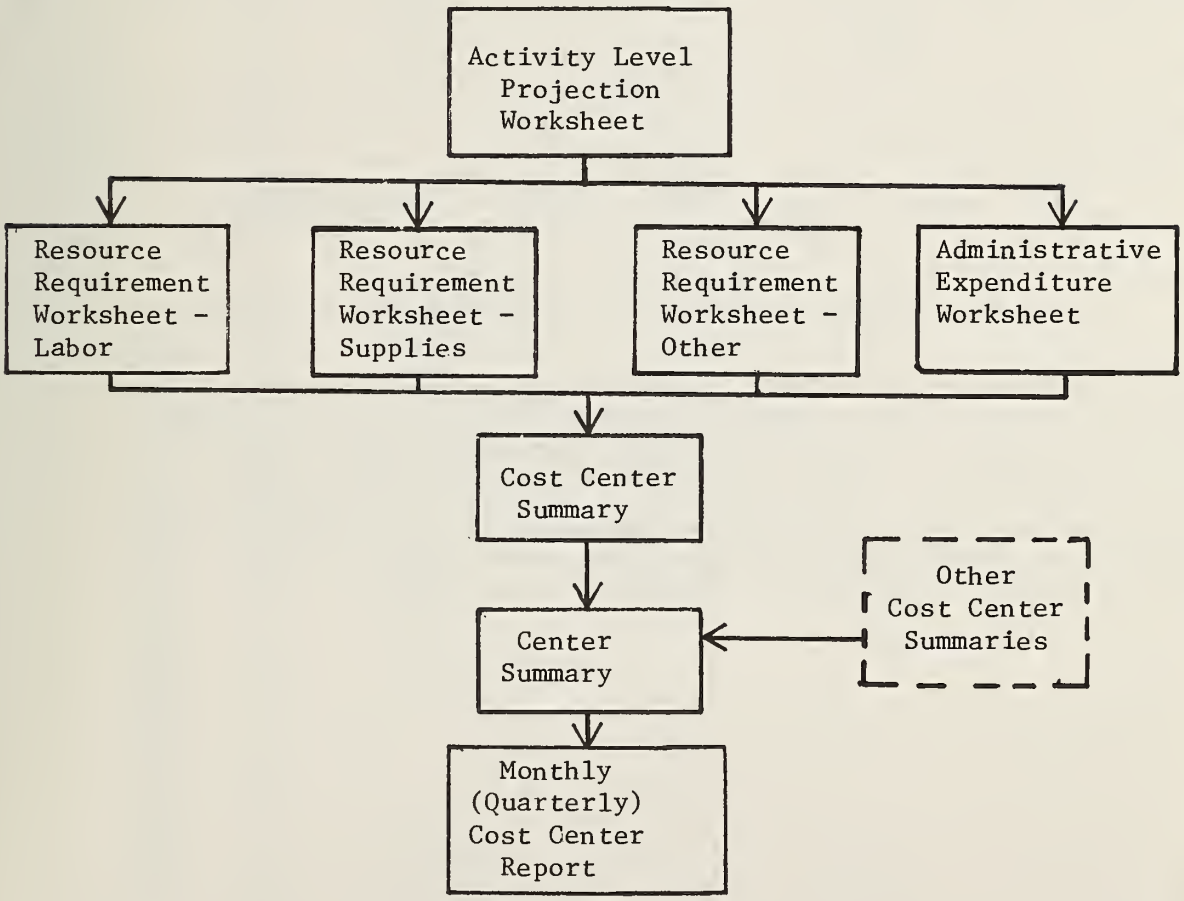
(NOTE: Following the convention used in the language, ADVANCED BASIC, multiplication is indicated by an asterisk (*).)

APPENDIX 6-III

SAMPLE FORMS FOR USE IN BUDGET PREPARATION AND REPORTING**

Todd Smith

Budget Preparation and Reporting
Sample Forms Flow



**The following forms are presented only as suggested samples. The formatting should not be held as sacred. Seminar participants suggested obtaining advice from an expert forms designer and the author agreed.

PAGE: _____

COST CENTER: _____

ACTIVITY : _____

ACTIVITY LEVEL PROJECTION WORKSHEET

The manner in which each activity is defined will be of great significance to the work performed in preparing Cost Center budgets. Definition of Activity Levels should be in the smallest workable unit possible, consistent with the Cost Center operation.

DEFINE THE UNIT OF SERVICE: _____

HISTORICAL LEVEL OF ACTIVITY:

1969	1970	1971	1972	1973*	1974 (Estimate)

Direct extension of prior periods' activity may be sufficient to project next year's activity level. However, modifications to this activity level could arise as a result of additional information. Information of this nature would include: expansion plans; change in Center policy; change in medical techniques; industry statistics. If the above estimate of activity does not appear to be correct, indicate below the reason(s) for modifying this activity level, and the effect of each reason. Also indicate the source of additional information.

Revised activity level (if no modification is made, insert 1974 estimate). _____

*January thru June activity X2.

PAGE: _____
COST CENTER: _____
ACTIVITY: _____

RESOURCE REQUIREMENT WORKSHEET - Labor

Effective utilization of manpower requires that reasonable standards be established. These standards should include allowances for personal time, but should reflect satisfactory performance by employees in performance of assigned tasks.

A. TYPE OF EMPLOYEE	B.* UNITS OF DEFINED ACTIVITY PER HOUR	C.* LABOR HOURS: ACTIVITY UNITS ÷ B	D.* MINIMUM PERSONNEL: C ÷ 2,000	E. PROJECTED PERSONNEL	F. CURRENT STAFF

G. PERSONNEL TO BE HIRED	H. ** 7:00 A.M. - 3:00 P.M.	I. ** 3:00 P.M. - 11:00 P.M.	J. ** 11:00 P.M. - 7:00 A.M.	K. HOURLY WAGE RATE	L. TOTAL WAGES: Kx2080x(H&I&J)

* Disregard B, C, and D if personnel costs are fixed.
** The sum of thosecolumns should equal column E.

RESOURCE REQUIREMENT SHEET - Supplies

Effective utilization of supplies requires that reasonable standards of material usage be established. These standards should include allowances for normal waste of materials, but should reflect satisfactory usage by employees

DIRECT SUPPLIES COST

A. TYPES OF SUPPLIES (1)	B. UNITS OF DEFINED ACTIVITY PER QUANT OF SUPPLIES (2)	C. QUANTITY OF SUPPLIES REQUIRED: ACTIVITY UNITS ÷ B	D SUPPLY COST PER QUANTITY	E. TOTAL COST OF SUPPLIES

ADMINISTRATIVE SUPPLY COST (3)

A. TYPES OF SUPPLIES (1)	B. QUANTITY OF SUPPLIES	C. SUPPLY COST PER QUANTITY	D. TOTAL COST OF SUPPLIES

(1) As many distinct types of supplies are capable of estimation should be included in this form. Estimates of "Miscellaneous" should be kept at a minimum.
(2) Quantity of supplies should be defined by purchase unit- that is, quarts, gross, rolls, etc.
(3) This section should include fixed supply costs.

PAGE_____

COST CENTER_____

ACITVITY_____

ADMINISTRATIVE EXPENDITURE WORKSHEET

This free form worksheet is designed to supplement the labor and supplies worksheets. Typical of the items that are appropriate for this form are travel and meeting expenses, educational activities, professional fees. Each item that is included on this worksheet should be accompanied by appropriate detail.

NATURE OF EXPENDITURE	MAJOR COST COMPONTNETS	TOTAL EXPENDITURE

PAGE_____

COST CENTER_____

ACTIVITY_____

COST CENTER SUMMARY

	Labor Cost	Supplies Cost	Administrative Cst	Other cost	Total Cost
Fixed					
Total Fixed					
Variable					
Total Variable					
Total					

For those cost centers from which charges are made to the public and staff, the following should be completed:

Type of Service	Units of Service	Rate per unit	Total Charges
		Total	

PAGE_____

COST CENTER_____

CENTER SUMMARY

This form is intended to summarize various cost center activities. The Business Manager's preparation and signature of this form indicates approval of cost center budgets.

Fixed Costs

Cost Center	Labor Cost	Supplies Cost	Administrative Cost	Other Cost	Total
Total					

Variable Costs

Cost Center	Labor Cost	Supplies Cost	Administrative Cost	Other Cost	Total
Total					

Revenues

Cost Center	Total Charges
Total	

Signed:_____

Date:_____

PAGE _____
COST CENTER _____
ACTIVITY _____

MONTHLY (QUARTERLY) COST CENTER REPORT

	Current Month (Quarter)			Year-to-date		
	Budget	Actual	Difference	Budget	Actual	Difference
Activity						
Revenues						
Costs						
Fixed:						
Labor						
Supplies						
Administrative						
Other						
Variable:						
Labor						
Supplies						
Administrative						
Other						
Allocated:						
Dietary						
General Serv.						
Administrative						
Total Expenses						
Excess of Revenue Over Expenses						

CHAPTER 7

INTEGRATING SUBSYSTEMS

Throughout the conceptual and operational examples of subsystems presented, evidence of subsystem integration has frequently appeared. Integration of subsystems is a mandatory requirement for a smooth running overall management information system. All subsystems use similar information and must work in harmony with each other to provide decision-making information necessary for managing an organization. Reporting systems--computerized or not--represent the fruition of integrated subsystems. Several individual subsystem output examples appeared earlier. Creative examples of useful charting and graphic report presentations using integrated data are presented by Joseph Mooney (1972). These presentations augment a mannually operated system. Similar visual summarizations are possible with data drawn from nearly any kind of system--manual or not--and are highlighted to encourage high impact and understandable presentation of IMIS data.

Several management systems or techniques for the administration and control of Comprehensive Mental Health Centers have been advocated by various governmental agencies over the past few years. Many of these are dependent upon the extensive use of automated equipment, but many CMHCs do not possess the financial resources to procure these types of services. They must depend upon only a few administrative personnel and the inexpensive techniques to be described.

Overall Flowchart. Exhibit 7-1 is a flow chart of the Centers management mechanism entitled "Procedure for Executive Control". The initial step is a program, the final product is a patient who has received adequate and proper treatment.

Financial Worksheet. At the close of each monthly accounting period, the income and disbursements by budget item and funding category are entered onto worksheets (designated as "Program Control Worksheets" on the initial Flow Chart). A sample of this document is attached as exhibit 7-2.

Actual expenditures by program are transferred to other working papers, preparatory to the completion of the monthly financial statements for both the Mental Health and Drug Addiction programs. These latter documents, exhibits 7-3 and 7-4 are reported on and distributed to each member at the monthly Board of Directors meeting. The cumulative expenditures for the program year as well as individual details of the last three months are shown. The final column, "Budget Variance" is actual expenditures versus the expected for that period of the program's year. The variance and the reasons for it are explained, each month, to all Board members. When appropriate a budget change is recommended.

EXHIBIT 7-1

PROCEDURE FOR EXECUTIVE CONTROL

PROGRAMS

MODEL CITIES
STATE OF AZ

NIMH
STAFFING
PROPOSALS
+
GRANTS

FISCAL
YEAR
BUDGET

FINANCIAL
PLAN
PROGRAM
YEAR

EXPENDITURES

PERSONNEL
- SALARIES
- FRINGE
- TRAVEL
- CONTRACT SUBS

OPERATING COSTS
- RENT
- UTILITIES
- SUPPLIES
- DRUGS

CAPITAL
- EQUIPMENT

TUCSON SOUTHERN COUNTIES MENTAL HEALTH CENTER

ACCOUNTING

DISBURSEMENTS
- PAYROLL
- SUPPLIES
- EQUIPMENT

PROGRAM ACCOUNTS
- FEDERAL
- STATE
- MODEL CITIES
- UNRESTRICTED

SERVICE PROGRAMS
- MENTAL HEALTH
- DRUG

PROGRAM
CONTROL
WORKSHEETS

MANAGEMENT CONTROL

BOARD OF
DIRECTORS

EXECUTIVE
DIRECTOR

PROGRAM DEVIATIONS

BUDGET VARIANCE

FINANCIAL
STATEMENTS

EXHIBIT 7-2
Program Control Worksheet
Totals and November 1972

	ACCOUNT	Annual Total	09-H-21-3 Total	09-161-1 Total	366-73 Total	Lea T	ague otal	Nov. 1972 Total	09-H-21-3 Nov.	09-161 Nov.
	INCOME									
482	Contributions	14,138.31						345.00		
495	ASDH 366-73	15,286.88			15,286.88			11,860.83		
496	FGD. 09-H-000021-03	41,000.00	41,000.00					25,000.00	25,000.00	
496A	FGD. 09-H-00161-01	100,000.00		100,000.00				50,000.00		50,000
498	Patient Fees	3,681.85						87.00		
499	Junior League	22,500.00				22,5(	00.00	2,500.00		
	Total	196,606.99	41,000.00	100,000.00	15,286.88	22,5(	00.00	89,792.83	25,000.00	50,00(
	EXPENSES									
500	Salaries	8,037.41	6,207.68		1,829.72			3,496.34	3,103.84	
502	Prof. Pers. Svs.	150.00			150.00					
510	Health Ins. Prof.	117.85	117.85							
520	FICA Prof.	132.54	55.45		77.09			47.86	27.45	
521A	FICA Prof. Adj.	197.04		197.04						
522	Annuities	693.44	693.44					439.21	439.21	
522A	Annuities Adj.	(10.57)	(10.57)					(10.57)	(10.57)	
554	Other Contract Svs.	1,922.28			129.50	1,7	792.78	62.50		
560	Rent-Office	1,575.00			1,125.00	4.	50.00	225.00		
562	Rent-Equip.	70.67			23.63	4	7.04	23.60		
566	Maint-Repair	85.13			50.13	3.	5.00			
568	Telephone	1,134.52			327.97	806	.55	126.98		
580	Postage	172.15			60.00	112	.15	30.00		
582	Office Supplies	956.75			321.75	635	.00	28.16		
584	Stationery	72.71			54.29	1	8.42			
586	Printing	74.69				7	4.69			
588	Subscriptions	105.30				1'	05.30			
589	Org. Dues	650.00			300.00	3	350.00			
604	Local Ed. Conf	176.39			75.00	1	101.39	75.00		
610	Out-Town Trans.	818.90			507.50	1	311.40	478.00		
614	Ed. Conf & Institutes	76.00			25.00		51.00	25.00		
702	Capital-Equip.	541.89			316.89	2.	75.00	316.89		
802	Miscellaneous	473.57			73.71	39	9.86	227.90		
	Total	18,273.66	7,063.85	197.04	5,447.19	5,56	5.58		3,559.93	

EXHIBIT 7-3

TUCSON SOUTHERN COUNTIES MENTAL HEALTH SERVICES, INC..
MENTAL HEALTH SERVICES FINANCIAL STATEMENT

January 1973

BUDGET ITEM	ANNUAL BUDGET	TOTAL EXPENDITURES 1 JULY 72-31 Jan 73	TOTAL EXPENDITURES FOR NOVEMBER	DECEMBER	JANUARY	BUDGET VARIANCE
SALARIES	$ 601,133	$314,468.59	$40,272.71	$ 52,175.80	$ 41,458.33	-23,269
EMPLOYEE RELATED	75,177	40,754.00	4,720.03	5,959.05	7,106.39	- 2,616
AUDIT EXPENSE	1,500	---	---	---	---	---
EQUIP. RENTAL	2,930	786.76	689.33	15.00	---	- 9.20
MAINTENANCE	780	200.99	---	---	13.00	- 2.54
UTILITIES	1,440	818.69	93.81	---	75.84	- 22
CONTRACT SERVICES	10,200	4,219.08	1,879.33	1,220.04	15.50	- 1,665
TRAVEL-MILEAGE	10,230	3,033.10	1,024.71	382.92	874.21	- 2,868
RENT	7,040	4,130.42	585.00	585.00	630.42	+ 27
DRUGS-MEDICINE	500	658.25	---	51.25	---	+ 358
EDUC.SUPPLIES	780	140.23	41.60	---	50.00	- 315
OFFICE SUPPLIES	3,400	2,577.77	245.90	140.19	630.70	+ 597
POSTAGE	540	284.00	46.00	46.00	24.00	- 31
TELEPHONE	4,560	1,988.96	154.43	204.93	315.47	- 671
INSURANCE	2,150	---	---	---	---	
PRINTING	660	112.35	---	---	---	- 273
MISCELLANEOUS	350	221.74	41.75	---	37.85	+ 18
CAPITAL EQUIPMENT	3,036	1,736.95	316.89	---	91.17	- 1,239
TOTAL	$ 726,406	$ 376,124.88	$50,111.49	$60,780.18	$ 51,322.88	
PARTICIPATING:						
ST. MARY'S	$ 375,701	$ 192,488.90	$ 27,354.30	$ 36,751.24	$25,955.22	-24,254
UNIV.OF ARIZONA	7,392	9,966.87	---	---	---	---
ARIZ. CHILDS HOME	77,820	47,238.33	6,002.65	6,350.51	6,350.51	+ 2,344
COCHISE COUNTY	15,966	8,930.83	515.63	2,023.95	1,077.29	- 230
GRAHAM-GREENLEE	4,000	1,810.62	1,200.00	523.91	---	= 523
TOTAL	$ 480,879	$ 260,435.55	$ 35,072.58	$ 45,649.61	$ 33.[illegible].02	

EXHIBIT 7-4

TUCSON SOUTHERN COUNTIES
MENTAL HEALTH SERVICES, INC.
FINANCIAL STATEMENT FOR DRUG PROGRAM

January 1973

BUDGET ITEM	ANNUAL BUDGET	TOTAL EXPENDITURES 1 SEPT.72-31 JAN.73	TOTAL EXPENDITURES FOR			BUDGET VARIANCE
			NOVEMBER	DECEMBER	JANUARY	
SALARIES	$ 419,217.00	$ 92,712.13	$ 16,352.20	$ 17,479.80	$ 21,910.53	-79,166
EMPLOYEE RELATED	53,815.00	8,720.60	737.89	1,648.44	3,424.86	-1[illegible]323
CONSULTANT CONTRACT SERVICES	57,667.00	7,023.67	947.64	859.23	2,292.20	-16,619
EQUIPMENT	16,660.00	4,411.58	39.41	611.87	1,362.18	-[illegible],418
SUPPLIES	20,397.00	4,951.24	730.68	1,145.64	1,817.19	-[illegible],[illegible]11
TRAVEL	15,449.00	3,720.92	771.30	633.40	325.90	-[illegible],614
SPACE	21,773.00	5,633.98	293.03	1,616.71	1,140.04	-3,276
MISCELLANEOUS		162.06	14.71	48.00	34.35	
TOTAL	$ 604,978.00	$ 127,356.18	$ 19,887.26	$ 24,043.14	$ 32,307.25	-180,327

Management Graphs. The Management Control Room (at the Central Office) showing a graphic representation of each financial program as well as significant amounts of patient data is maintained. Currently there are trend charts on twelve major programs. Each is standardized as shown in exhibit 7-5 and 7-6. Exhibit 7-5 is the State Drug Program which authorizes a total expenditure of $30,000 during the period 1 July 1972 and 20 June 1973. The funds are divided between six budget items. The actual expenditures to date (30 November 1972 in this case) versus the program, by months and cumulatively is shown both graphically and numerically. Control action is initiated whenever a program deviates significantly above or below the desired line. Exhibit 7-6 depicts the back of the same chart, and shows by budget item the program versus actual expenditures. The totals here compare with those shown in the front chart. However, even though totals may be within limits, individual budget items may require management attention.

Another example of financial control is exhibit 7-7. This is the type of budget control chart which is maintained on each of the three organizational elements that are the direct responsibility of the Executive Director. The attachment is for the Central Office and shows the authorized budget items as well as the cumulative expenditures, by budget item for the full program year (in the case 1 July 1972 through 30 June 1973). Whenever a budgeted item exceeds the expected as of a particular period, the item cumulative total is posted in RED (circled on exhibit 7-7). If the management action taken does not correct an undesirable trend, a budget revision may be deemed appropriate. In such a case a revised item would have to be approved by the Board of Directors. The budget items shown on exhibit 7-7 are the same as those approved by the Board of Directors prior to the beginning of the program year.

Cost Analysis. The next step in the management procedure is the accumulation, tabulation and analysis of patient data which, when combined with budget/cost/expenditure information, leads to cost-finding and rate-setting. Information required by the NIMH annual inventory of Comprehensive Mental Health Centers is collected monthly as input to the State Mental Health Data Systems. This too is displayed in graphic form in the management control room. Some examples include:

- Exhibit 7-8. "Patient Intakes and Readmissions"
- Exhibit 7-9. "Average Hours of Direct Service, Professional Staff"
- Exhibit 7-10. "Catchment Area Income Versus Patient Income."

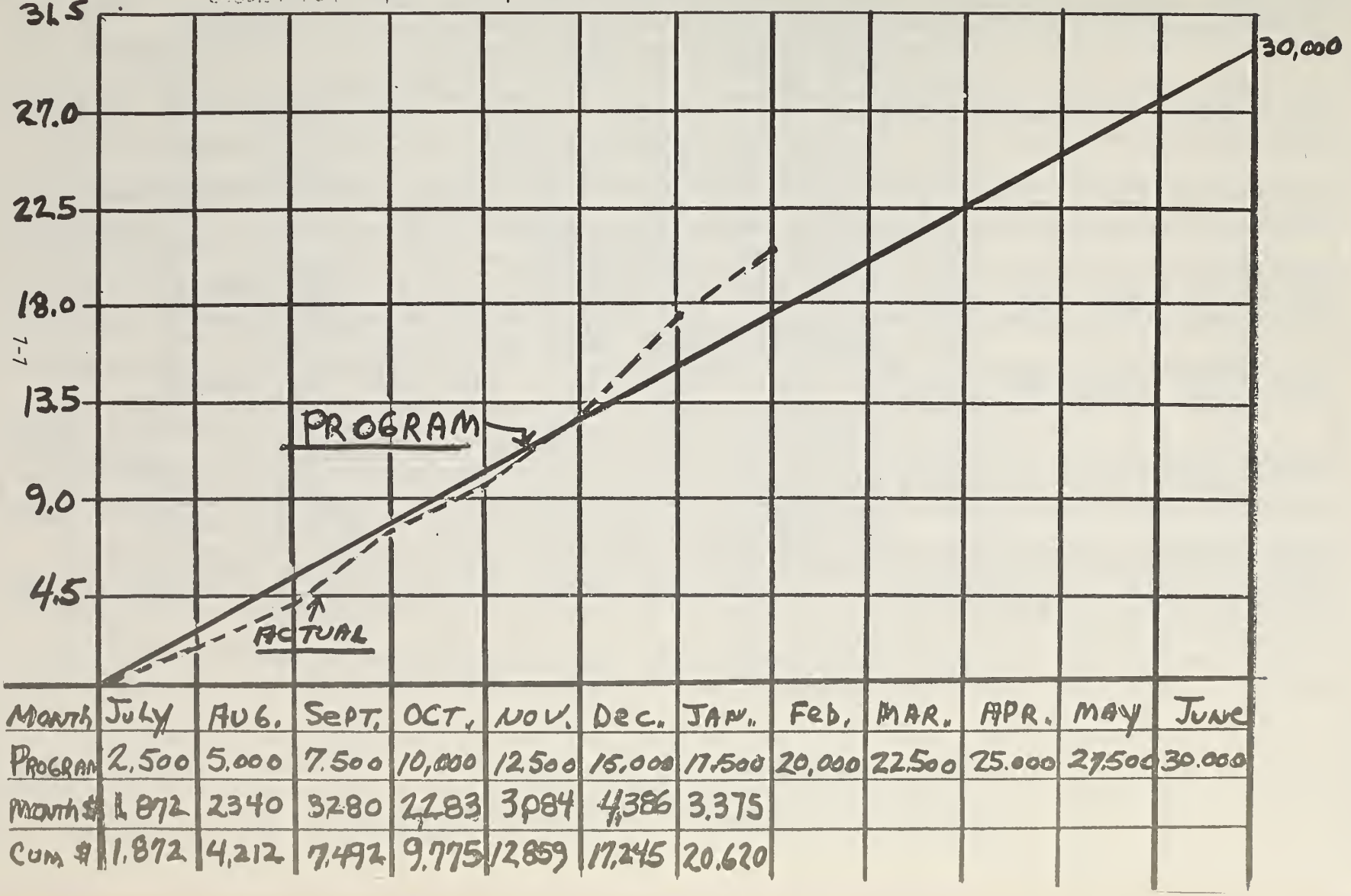
The latter is from a special analysis which was made to determine if the indigent patient in this catchment area was receiving treatment as planned in the staffing grants. Two bars represent the dollar incomes as indicated on the bottom scale. The left bar is catchment area patient income, while the right bar represents the income averages of all catchment area residents as reported in the 1970 census. From this analysis, larger percentages of low income patients are being treated than a comparable percentage of total residents (by income) in the catchment area. From this segment of several evaluations the Center appears to be carrying out its mandate as a Poverty Center.

EXHIBIT 7-5

DRUG PROGRAM EXPENDITURES

STATE 310-73A

1 JULY 72 - 30 JUNE 1973



MONTH	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE
PROGRAM	2,500	5,000	7,500	10,000	12,500	15,000	17,500	20,000	22,500	25,000	27,500	30,000
MONTH $	1,872	2340	3280	2283	3084	4,386	3,375					
CUM $	1,872	4,212	7,492	9,775	12,859	17,245	20,620					

EXHIBIT 7-6
CUMULATIVE DRUG PROGRAM EXPENDITURES
State 310-73A
1 July 72 - 30 June 1973

ITEM		JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE
PERSONNEL	PROGRAM	1.167	2.334	3.501	4.668	5.835	7.002	8.169	9.336	10503	11.670	12.837	13.573
	ACTUAL	1.872	4,212	7,492	7,953	8,496	9,048	9.738					
CONTRACT SVS	PROGRAM	625	1.250	1.875	2500	3,125	3,750	4,375	5,000	5,625	6.250	6,875	7,500
	ACTUAL	—	—	—	880	1,828	2,688	4,821					
TRAVEL	PROGRAM	167	334	501	668	835	1,002	1,169	1,336	1,503	1,670	1,837	2000
	ACTUAL	—	—	—	131	902	1,535	1,535					
COMMUNICATION	PROGRAM	87	175	262	350	437	525	612	700	787	875	962	1,050
	ACTUAL	—	—	—	388	427	940	940					
SUPPLY	PROGRAM	225	450	675	900	1,125	1350	1,575	1,800	2,025	2,250	2,475	3,327
	ACTUAL	—	—	—	396	1,127	1273	2772					
OCCUPANCY	PROGRAM	250	500	750	1.000	1,300	1,550	1,800	2,050	2,300	2,625	2,675	2,750
	ACTUAL	—	—	—	21	79	761	814					
TOTAL	PROGRAM	2500	5.000	7500	10000	12500	15.000	17,600	20.000	22,500	25,000	27.500	30.000
	ACTUAL	1,872	4,212	7.492	9.775	12,859	12,215	20.624					

EXHIBIT 7-7

BUDGET AUTHORIZATION VS EXPENDITURES CENTRAL OFFICE

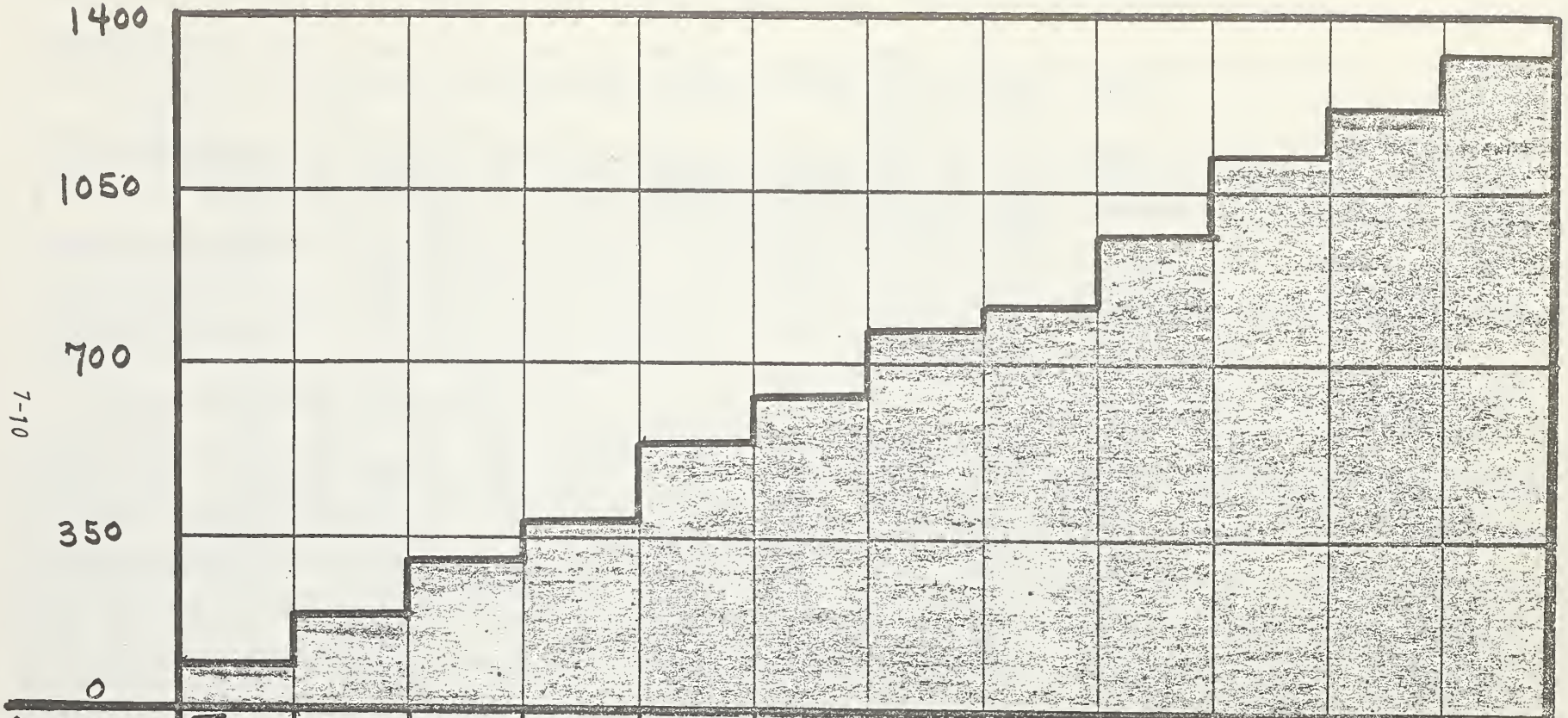
JULY 72 - JUNE 73

ITEM	BUDGET	JULY	AUG.	SEPT.	OCT	NOV.	DEC.	JAN.	FEB	MAR.	APR	MAY	JUNE
PER. SALARIES	50,040	3239	7305	12518	16009	[illegible]	22978	26.508					
EMP. RELATED	9,150	708	1234	2653	3350	3854	4642	5868					
AUDIT	1,500	—	—	—	—	—	—	—					
EQ. RENTAL	150	—	24	24	24	48	48	48					
EQ. MAINT	180	18	18	51	51	51	51	51					
CONTRACT SVS.	1,200	—	—	367	367	489	642	658					
TRAVEL	4,000	84	97	149	179	757	1072	1327					
RENT	2,700	225	450	675	900	1,125	1350	1575					
TELEPHONE	[illegible]	115	201	[illegible]	—	[illegible]	[illegible]	701					
PRINTING	500	19	19	19	19	19	19	19					
INSURANCE	750	—	—	—	—	—	—	—					
MISCELLANEOUS	100	—	13	78	78	99	99	99					
CAPITAL	1191	327	327	327	327	644	644	644					
FOUNDERS DAY	—					207	360	360					
TOTAL	75,151	4,875	10239	17,876	22595	28,186	33421	38,902					

EXHIBIT 7-8

PATIENT INTAKES & READMISSIONS CUM.

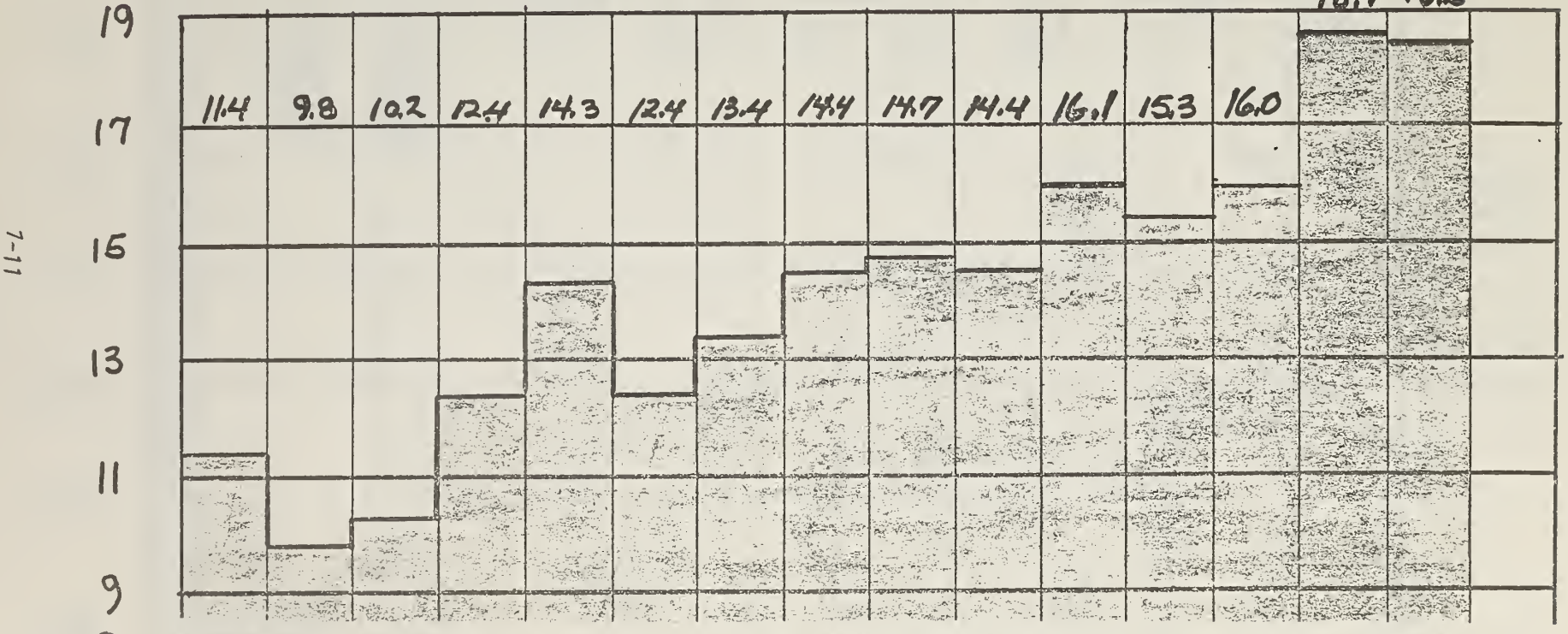
JAN. 1972 - DEC. 1972



MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT	OCT	NOV	DEC.
TOTAL	99	212	300	389	529	662	780	863	982	1.086	1.202	1.315
[illegible]	45	93	140	192	241	301	323	369	421	456	495	[illegible]
Rt. Child's	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cochise	0	1	1	8	9	9	32	32	50	64	65	73
G/G'Lee	0	18	26	33	43	43	54	54	60	64	73	85
VaFAB'Amb	0	0	0	0	15	26	26	26	26	26	26	26

EXHIBIT 7-9

AVERAGE HOURS OF DIRECT SERVICE PER WEEK PER PROFESSIONAL STAFF MEMBER



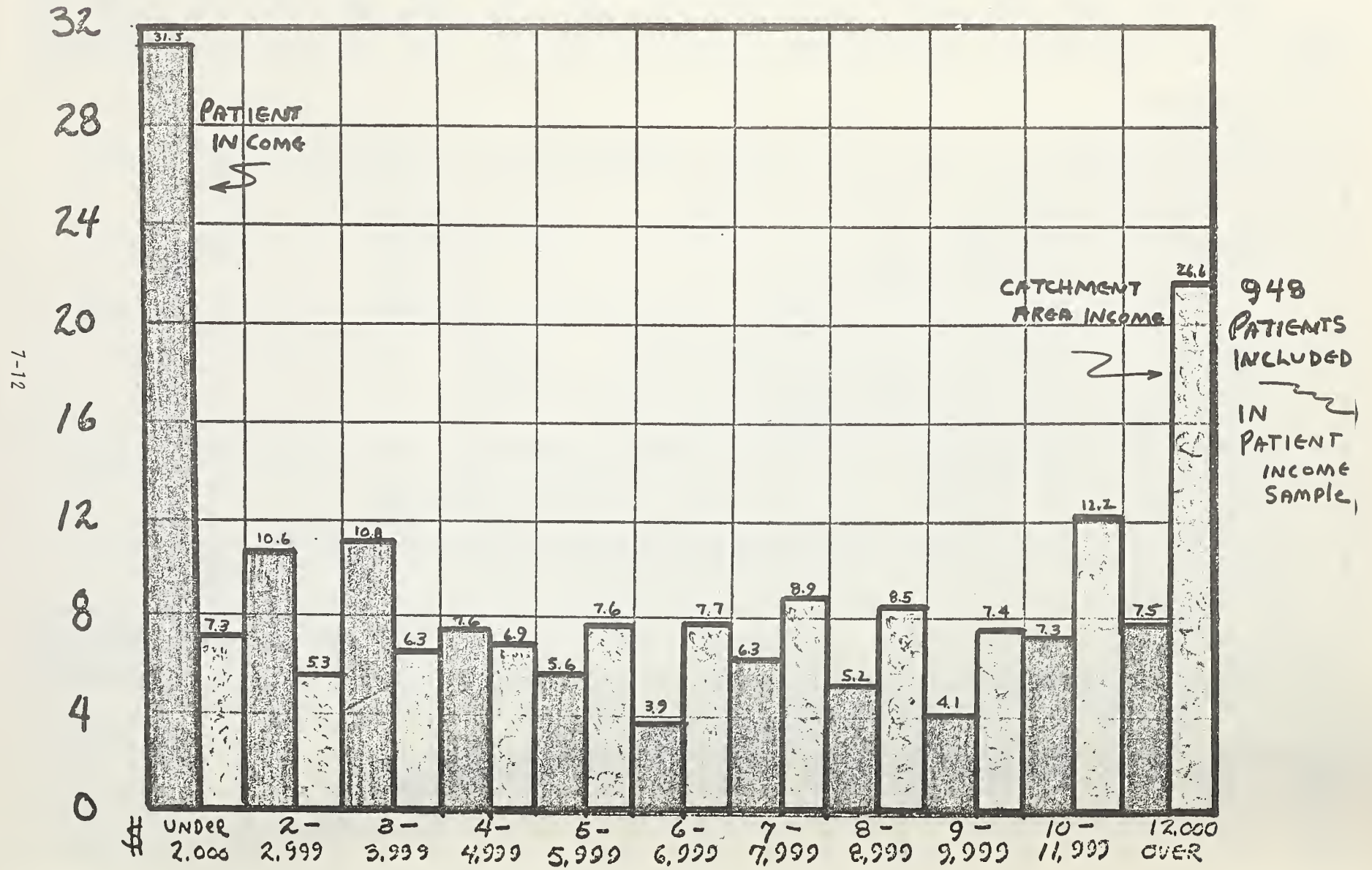
MONTH	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT	NOV	DEC
# OF STAFF	37	49	80	76	91	77	73	108	93	76*	71*	53**	87	72	82	
TOTAL HOURS	422	481	819	949	1.505	985	985	1557	1367	1,095	1,142	813	1.388	1.349	1.491	

* AZ. CHILDS ON SUMMER SESSION.
** 4 UNITS NO REPORT

EXHIBIT 7-10

CATCHMENT AREA INCOME VS PATIENT INCOME

1970 CENSUS VS JAN-SEPT. 72 ADMISSIONS



Cost-finding calculations were made during the past year in several service areas. For the Outpatient Clinic (exhibit 7-11) and the Drug Abuse Rehabilitation Center (exhibit 7-12) the "Cost Per Hour of Professional Service" for the primary professional staff are calculated. As shown in the exhibits, these costs include payroll, fringe, administrative overhead and support overhead--in effect the total cost of providing services at each of these facilities. The administrative overhead is spread to all professional groups in proportion to the number of hours each group worked versus the total hours worked by all groups.

The support overhead costs (rent, lights, heat, supplies, etc.) are spread over all personnel in the same manner. The results provide one method which may be used for rate-setting.

Another approach has been the determination of cost per unit of service delivered. This has been calculated on a continuing basis for the past 12 to 18 months for both the outpatient clinic (exhibit 7-13) and the inpatient unit which is a contracted operation with the hospital, (exhibit 7-14). For the period 1 January 1972 through 30 November 1972, the total cost of operating the outpatient clinic was $122,600. The number of patient visits, averaging 1 hour each has totaled over the same period 6,358, for an average of $19.23 per patient visit. The team concept is in use at the clinic and consists of combinations of professionals (psychiatrists, psychologists, psychiatric social workers) using individual and/or group techniques, as necessary. The conclusioons from the evaluative process will be used to redesign the rate structure and to develop modified billing procedures. In some instances where therapy is provided by a single professional to either an individual or a group, the rates as indicated in exhibit 7-11 might be applied.

The final example in this section of the report deals with the cost per day of treatment, per patient, in the inpatient unit (exhibit 7-14). This is the total cost, not just patient treatment cost. A portion of the nonoperating overhead of the total hospital complex has been prorated to the inpatient unit. During the period 1 January 1972 through 31 October 1972, the unit provided 6,517 days of patient care. The total cost was $526,459 and the average cost per day, over the full 10 month period was $80.87. The monthly average in January was $77.42, the high per month to date was in September $105.94, and the trend, for the period, on a 2-month running average as depicted by the dotted line.

Data evaluated as indicated in this section serves management as a tool in developing rates, and as a basis for other management changes. In the future it will probably also be beneficial in defending programs and in establishing adequate reimbursement schedules so that continued services may be provided to those in need.

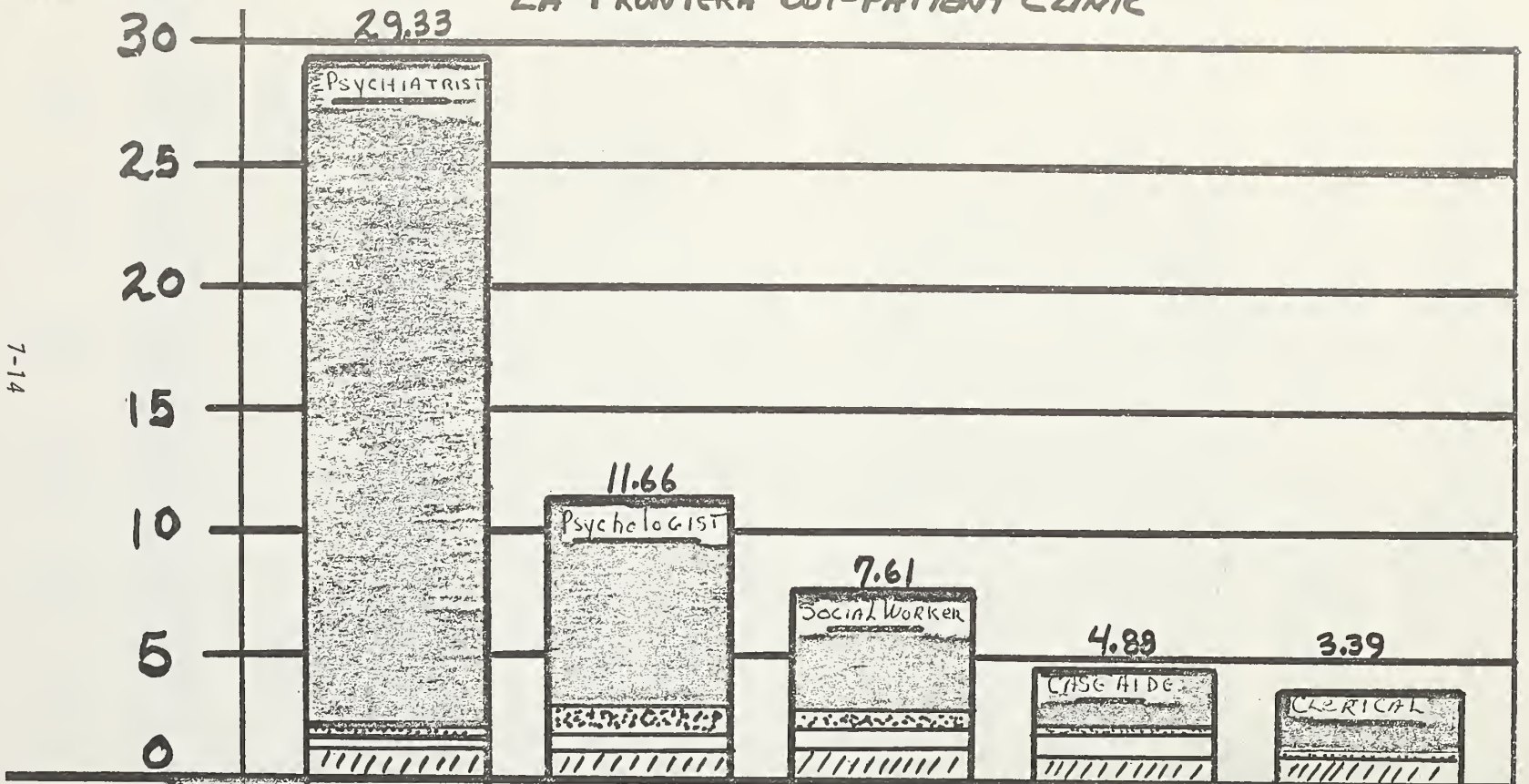
EXHIBIT 7-11

COST PER HOUR OF PROFESSIONAL SERVICE

1 AUG 1971 - 31 JULY 1972

"LA FRONTERA" OUT-PATIENT CLINIC

BASED UPON A MODIFICATION OF APPENDIX III NIMH MANUAL, SERIES C, #6.



	PSYCHIATRIST		PSYCHOLOGIST		SOCIAL WORKER		CASE AIDE		CLERICAL	
PAYROLL	26.66	91%	8.53	73%	5.01	66%	2.65	54%	2.14	63%
FRINGE	.83	2.8%	1.29	11%	.76	10%	.39	8%	.24	7%
ADM O/H	.83	2.8%	.83	7.1%	.83	11%	.83	17%		
SUPPORT O/H	1.01	3.4%	1.01	8.9%	1.01	13%	1.01	21%	1.01	30%

EXHIBIT - 7-12

COST PER HOUR OF PROFESSIONAL SERVICE
1 SEPTEMBER 1971 - 30 AUGUST 1972
"HOPE CENTER" DRUG ABUSE-REHABILITATION

BASED UPON A MODIFICATION OF APPX. IV NIMH MANUAL, SERIES C, #6.

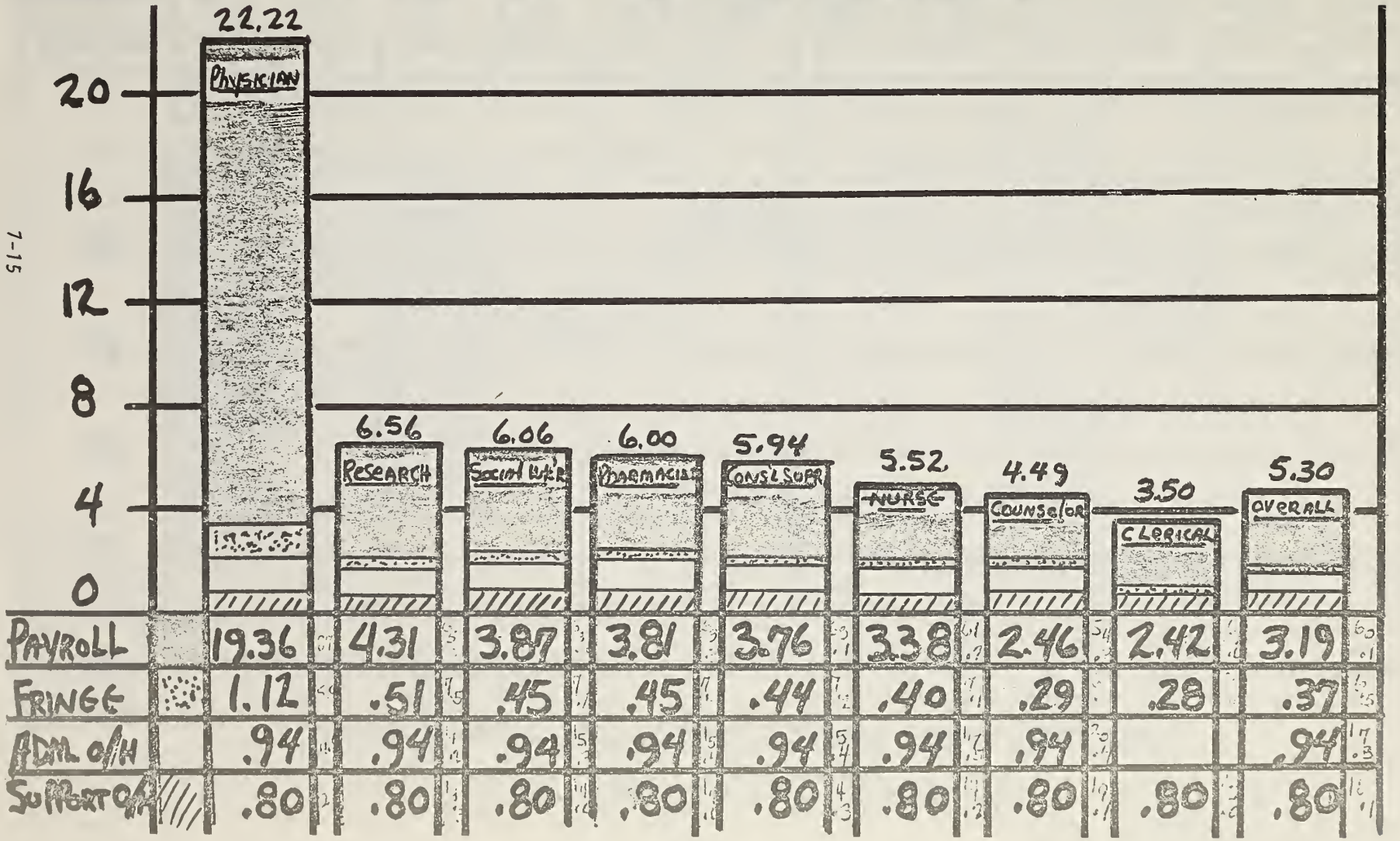
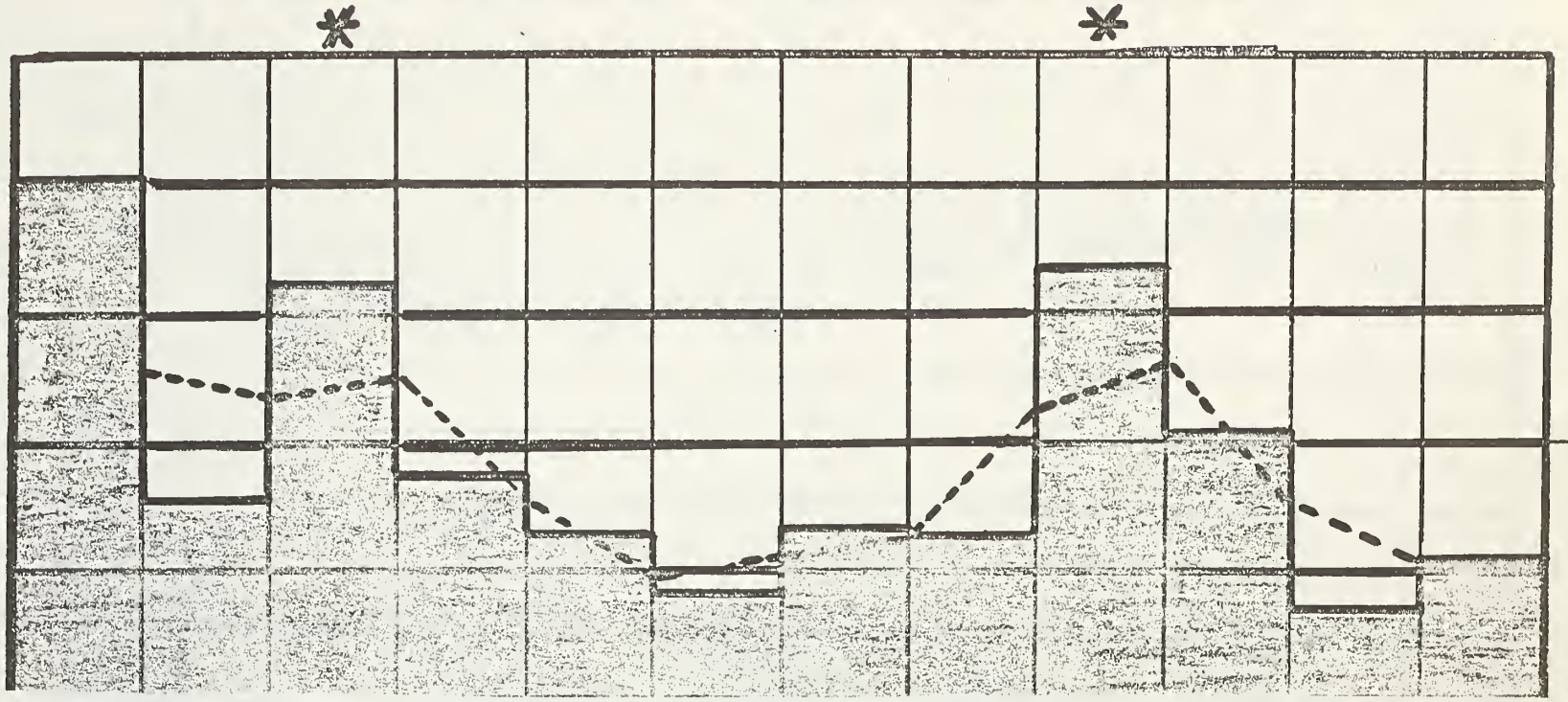


EXHIBIT 7-13

* 3 Pay Period Months

Cost Per Patient Treatment

La Frontera Out-Patient Clinic Jan-Dec. 1972

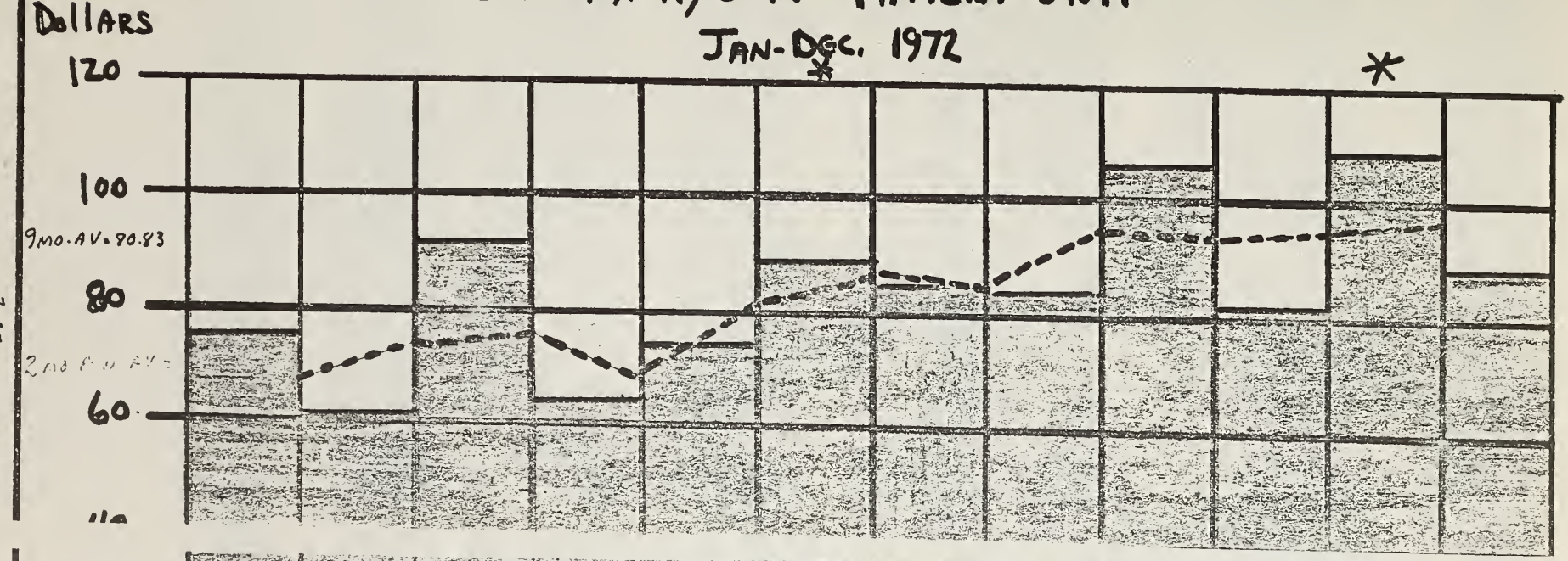


Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
# Interviews	415	567	581	613	574	648	577	585	539	557	702	594
Total Cost	12,468	10,103	15,136	11.446	9,422	9,201	9,559	9,509	14,422	11,500	9,654	9,897
$ Reimbursed	30.04	17.81	26.05	18.67	16.41	14.19	16.56	16.25	26.75	20.64	13.75	16.66

EXHIBIT 7-14

COST PER PATIENT DAY
ST. MARY'S IN-PATIENT UNIT
JAN-DEC. 1972

*3 PAY DAY MONTHS



MONTH	JAN.	FEB.	MAR.	APR.	MAY.	JUNE.	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
PAT. DAYS TOTAL / EATCH	561 / 276	693 / 390	533 / 279	623 / 423	697 / 383	674 / 458	708 / 457	717 / 437	687 / 522	643 / 552	687 / 525	721 / 533
AVG. DAYS/PAT	12.5	12.0	15.9	12.0	13.7	13.8	13.9	13.3	12.5	12.3	17.5	14.1
TOTAL COST	45,449	41,799	48,686	32,799	52,138	59,781	60,122	59,955	67,489	51,541	73,694	63,187
COST/PAT. DAY	77.50	60.00	91.00	63.30	74.80	88.40	84.65	83.40	105.24	80.28	108.05	87.63
% SUBURBAN / EATON	45% / 47%	50% / 56%	45% / 52%	59% / 68%	46% / 58%	56% / 60%	37% / 50%	51% / 61%	37% / 52	51% / 86	52% / 77	58 / 74

In contrast to the worksheet and graphic integration just illustrated, E. Myles Cooper (1973) develops a conceptual scheme to focus on the importance of subsystem integration. Cooper identifies the definition, rationale, and approaches of external and internal perspectives on IMIS integration.

External Integration

Definition. External integration of management information systems may be defined as the coordination of independent or semi-independent information systems of two or more independent administrative organizations. Perhaps the most prevalent type of external coordination in mental health is the integration fostered by a funding agency, such as a state agency coordinating local information systems, or a federal agency coordinating the information systems of programs it funds. (Of course, unfunded agencies may participate in information integration programs.)

Rationale. A major reason for external integration of management information systems is to obtain some comparability of data among systems. But that achievement is of little value without an examination of the reasons comparability is important. At the state and federal levels, the achievement of some order of comparability from reporting agencies is important in order to meaningfully evaluate the effects of legislation and to plan for the future, both through program modification and through funding. At the third party level, the achievement of comparability is important to the development of sufficiently reliable utilization and cost data upon which to base prices for program packages.

At the operational level, inter-program comparability is desirable in order to provide a basis for analysis in addition to the longitudinal basis within a program. However, at this level compromises cannot be made with intrinsic program definitions for the sake of inter-program comparability. To do so may either totally invalidate the information collected or may result in overlapping information gathering activities which are costly not only in terms of resources but also staff morale and cooperation. For example, admission data for the children's agency which may conduct two or more interviews before counting an admission are not directly comparable with admission data for a clinic which counts an admission upon provision of first direct service. Attempts to force comparability between such agencies may be disastrous. The information tail should not wag the program dog.

External integration is also desirable as a training mechanism to encourage efficiency in information gathering and utilization. External integration can also be a component of centralized data collection and feedback and can contribute to the completeness of data collection which in turn fosters utilization.

Approaches. There are many methods extant for achieving external integration of information systems. They include (but are not limited to) the following:

- An information collection and feedback system, including analysis with participation of reporting agencies in the development and operation of the system
- The distribution of publications containing suggested definitions, procedures and methods for analysis
- Technical assistance to cooperating facilities
- Conferences to provide an exchange of ideas on definitions and methodology on information collection, storage, retrieval, feedback and analysis, as well as for training purposes
- Monitoring to verify that operational procedures result in information collection consistent with conceptualizations

Internal Integration

Definition. Internal integration of management information systems may be defined as the coordination of component information systems within an agency. Integration means bringing together subsystems to form a composite larger system.

The components of an agency information system may include accounting, statistics, budgeting, cost-finding/rate-setting and such other written and verbal, formal and informal information components as management sees fit to utilize.

Often overlooked in formal design or evaluation of information systems are the informal, verbal parts. Conferences, staff meetings, and similar activities which generate information useful in decision making are frequently recognized. However, the staff grapevine and similar informal components of the composite information system are more frequently bypassed even though they frequently play a significant role in transmitting information throughout an organization and may have impact in administrative and program decisions.

Rationale. Essential to a logical determination of methods appropriate for integration of information system components is a conscious recognition of the reasons such integration is essential or desirable.

One major reason internal integration is important is the efficient utilization of resources. At first blush, such a generalization may appear to be so obvious a goal that intensive analysis of it may be considered to be inefficient utilization of resources. However, upon reflection, many will be able to identify situations where lack of integration similar to the following examples results in an inefficient use of resources but management has not taken corrective action:

- Independent design of the statistical and accounting subsystems; as a result, income or expense cannot be readily related to information on services provided, thus requiring special studies or redesign to develop essential information.

- Design of staff time records for payroll purposes and staff time records for program analysis or unit cost purposes are not coordinated; as a result, overlapping and inconsistent data are produced and staff morale suffers because of inadequate feedback or pressures to supply similar data inputs to multiple systems.
- Lack of use (or failure to communicate to staff the use) of formal information in decision making, resulting in unnecessary costs of information collection and/or lower staff morale.

Another major importance of internal integration is performance control. If the budget is not compatible with the agency organizational structure, or if the financial reports produced by the accounting system are not compatible with both the budget and the agency organizational structure, control based on performance is impeded.

Among mental health facilities, the development of additional funding sources has been slow because uncoordinated accounting and statistical subsystems have in many instances been unable to produce the experience and unit cost data needed by insurance companies and health plan developers for inclusion of mental health in their coverage.

Internal integration is important to patient management. Without integration of the medical records, statistics, accounting and program evaluation subsystems, sound patient management decisions will occur less frequently.

Sorensen and Phipps (1972, pp. 2-11) graphically portray some of the reasons for internal integration of management information subsystems in exhibit 7-15. Their use of the term "interactive" connotes integration. Effective planning and operational control make information system integration essential.

Approaches. There are many formal and informal methods to achieve internal information system integration. A few of these are discussed:

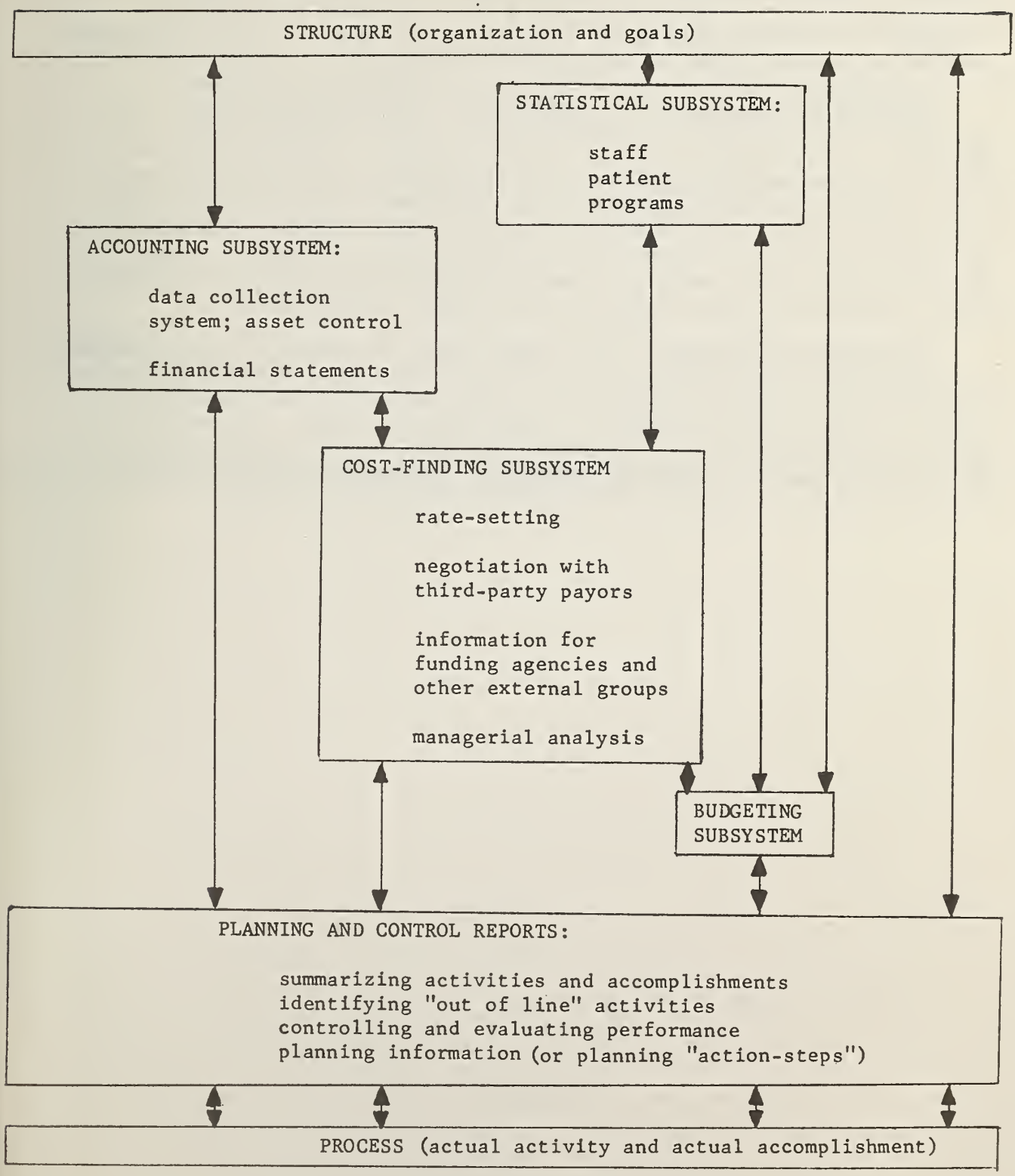
- Top management support
- Continuous responsibility
- Multiple use forms
- Participative management

Top Management Support. Top management must assume responsibility for the integration function. In a mental health agency this should be the responsibility of the agency director or his deputy. The person responsible for information systems coordination must be able to speak with the authority of the director if the compromises necessary to effect integration are to occur. Such authority is necessary to the implementation of integration decisions.

Continuous Responsibility. The integration function must be a continuing responsibility. The person assigned the function must be involved in information

EXHIBIT 7-15

OVERVIEW OF THE COMMUNITY MENTAL HEALTH CENTER MANAGEMENT INFORMATION SYSTEM:



system design and operation on an ongoing basis. The function cannot be performed effectively or economically if it is attempted on an ad hoc basis when issues arise. When attempted on the latter basis, the responsibility frequently shifts and the responsible person is often unfamiliar with the objectives and content of the subsystems and less competent to cope with problems as they arise. In brief the probability of appropriate decision making and economical performance of the integration function is enhanced when carried out as a continuing responsibility.

Multiple use forms. Another method for achieving integration is the utilization of one document for more than one information subsystem. To illustrate, the personnel time sheet can frequently be designed to serve payroll, program statistics, and accounting purposes; it can reduce overhead, minimize reconciliation activities, and enhance staff morale. The service ticket also can be designed to serve medical records, statistics and billing purposes. Multiple use of forms is well developed in large facilities but in many medium size and small facilities without information system specialists, forms design revision might be appropriate.

Participative Management. All staff should not only have the opportunity to participate in the development and operation of the information subsystems but they should be encouraged to do so. The utility of the information system in decision making should be communicated to staff. Information system integration can also be fostered through staff meetings for general and special purposes. It may be appropriate to designate specific staff to meet regularly to improve coordination of information systems.

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CHAPTER 8

ON THE HORIZON: OUTCOME EVALUATION

The overall goal of any human service is to provide an effective, yet efficient service. Data collected and analyzed for the planning, operating, and the management of CMHCs provides the foundation for evaluating the quality and outcomes of programs. While program outcome quality is extremely difficult to measure and is still in the experimental stages, program outcome evaluations would be virtually impossible without successfully integrated management information systems. William A. Hargreaves and C. Clifford Attkisson, (1973) describe the relationship of integrated management information systems to outcome measurements.1/

Evaluators and researchers have measured the effects of mental health programs in a wide variety of ways. In general, the outcomes chosen for evaluation must be clearly related to the specific goals and objectives of the program in question. Specific statements of program objectives allow the selection of relevant measures of intended program effects. In direct service programs these outcomes typically relate to the client's subsequent social functioning and symptom expression, as well as his satisfaction with the service he received.

When Do You Want To Look At Outcomes?

There are, perhaps, three reasons to look at program outcomes which are important in program management. One of the most useful occasions for an outcome study is when it can aid management and clinical staff in making a specific decision about program change. These are generally time-limited special projects which are only indirectly related to an ongoing management information system. A second reason to examine outcomes is to routinely detect relative strengths and weaknesses in a system of delivering services. Finally, program managers often need to demonstrate their program's overall effectiveness to funders and other groups who have a stake in the mental health center. For these latter purposes, routine monitoring and public accountability, some simple outcome assessment can be a useful part of an integrated management information system.

1/ Preparation of this paper was supported by Research Scientist Development Award MH36809 (Dr. Hargreaves) and contract HSM-42-72-105 with the National Institute of Mental Health, Office of Program Planning and Evaluation. Appreciation is expressed for the help and support of Dr. Frank Ochberg, Associate Regional Health Director for Mental Health, NIMH Region IX, San Francisco.

Studies To Aid Specific Management Decisions

These outcome studies are ordinarily simplified versions of the usual experimental clinical trial of alternate treatment methods. This aspect of program evaluation is not usually within the topic of management information systems, it is presented here to help the reader distinguish the various uses of outcome data. Two types of common program decisions can be aided by an outcome study. The first arises when a new service method is to be tried. The second occurs when the decision process which assigns clients to already available services is examined.

When a new service procedure is planned in an attempt to improve results with a particular problem or client group, the average outcome under the old procedure is compared to the results with the new procedure. If personal conviction suggests the new procedure will be better, a sample of outcomes before the change and again after the change will give an informal check on the new procedure and allow an illustration of the program improvement to interested publics. On the other hand, if no conviction about the two procedures exists, final decisions on their relative effectiveness should flow from the evidence. This can be done inexpensively by phasing in the new procedure in a planned way. Run the new procedure while also continuing the old one. Identify the class of clients for which the old and new services are to be compared. Enlist a group of these clients to help evaluate the two services, by allowing random assignment to one of the two service procedures. This helps to ensure a fair comparison by removing biases related to client selection. Compare the average outcome of the clients assigned to each procedure, and decide whether to permanently adopt the new method or retain the old one.

Matching clients to already existing services is a more complex but very common question. This question arises when alternate treatments are available and the choice is currently made without any clear or convincing rationale, at least for some portion of the clients. Here is a simple comparison of the effectiveness of two treatments which will not do, since one treatment may be better for some clients, while the opposite may be true for other clients. To explore this question, a sample of clients is randomly assigned to treatments, but one or more "predictor variables" are examined to see whether they can be used in selecting treatment assignment so that average outcomes are improved. These studies generally require larger sample sizes than a simple comparison of two treatments, and their results are more difficult to analyze and interpret. Their results apply to ongoing decisions, however, and therefore can repay their greater difficulty and expense over a longer time than studies focussed on a single time-limited decision.

When Is A Treatment Comparison Or Treatment Selection Study Helpful?

The program manager's answer must be based on the types of decisions he can foresee. Unforeseen problems requiring decisions within a brief time can generally not be helped by new studies. There is not time for a comparative experiment, although with a capable ongoing statistical data system relevant descriptive information can be extracted to help with some types of "brushfire" problems. The first planning requirement, therefore, is to foresee needed or ongoing decisions in advance. Secondly, some realistic choices of alternate strategies must be identified. Generally time is wasted when consideration is given to alternatives which are beyond realistic financial constraints, or outside the range of practices which staff consider professionally acceptable.

If an outcome study is intended to influence a decision made by someone else, usually this will be wasting time unless that decision-maker participates in the design of the study. The decision-maker may be an ally on the county board of supervisors, the mental health center director, the head of a particular program, or a group of front-line staff workers. The caveat applies regardless of the role or status relationship between the study designer and the effective decision-maker. The relevant question for the decision-maker is: "What are the actual options or alternatives which you feel are possible to consider? What information would convince you to choose this alternative over that one?" This aspect of the planning of evaluation studies has been helpfully discussed by Harper and Babigian (1971) and by Glaser and Taylor (1973).

A useful step in selecting the best areas for outcome studies is to outline the flow of clients through the functional components of the center's service programs. The purpose is to identify the major points at which choices are made about what services to provide. The choice points given high priority for study are those involving treatments of high cost (e.g., hospitalization, chronic aftercare), or outcomes of high cost (e.g., suicide, major family disruption, loss of earning power), but other factors may affect priorities as well (e.g., programs of great public concern, or where funding is in jeopardy). In designing the management information system, keep in mind the need to describe the client flow at the major decision points and to identify some of the client characteristics associated with what happens to them at these choice points.

Selecting several of these choice points, the evaluation planner should discuss the actual decision process with the personnel involved, attempting to understand what questions are currently most important to these decision-makers. For example, when this was done with intake workers in a particular outpatient clinic, the following three questions emerged from the discussions:

- Is "Psychiatric triage" a viable plan, i.e., should the most skilled and experienced staff members have the first contact with applicants?
- Which applicants should be assigned to individual therapy, to ongoing relatively closed groups, and to an open non-appointment contact group?
- Do alcoholics do better with a nurturant, warm "TLC" therapist or a "shape up or ship out" therapist?

Having developed some alternatives, the next step is to decide which one, if any, has a chance to give some useful return for the effort. Since most outcome studies are a gamble at best, look for the simplest, least expensive effort with the clearest relation to action. In the above example, the "triage" alternative was eliminated because intake workers were in fact largely self-selected across a wide range of experience and skill, and change was unlikely. The question about alcoholics was discarded because it required a follow-up period of at least several months, would be vulnerable to severe subject attrition, and present problems in defining and measuring the two treatments. Each of these difficulties might be tackled effectively, but the cost of the study would be well beyond the resources available. The second alternative, a comparison of intake assignment to individual therapy, group therapy, or contact group, was considered promising only because the immediate short-run outcome of the intake assignment would provide useful information, and because the clinic also had a large enough flow of applicants to make the study possible.

The detailed planning of experimental outcome studies is beyond the scope of this paper. This is discussed in a variety of texts (e.g., Campbell and Stanley (1969), Fairweather (1967) and in two other papers by the authors, Hargreaves, McIntyre, Attkisson, and Siegel (1974) and Hargreaves, Attkisson and Ochberg (1974)).

Monitoring Program Outcomes

The purpose of any routine monitoring is to detect problems needing remedy. For this purpose a broad sample of simple indicators must be periodically examined. This contrasts with outcome studies focused on specific treatment decisions, discussed in the previous section, where selected events are measured in greater depth. In monitoring, measures are usually compared with the same measures at previous times in order to make a decision, either no action need be taken, or the situation requires further examination. Therefore, the information monitored need not be a valid indicator of a problem, but only indicate situations in which an above average probability exists of a problem needing remedy. For example, an indicator such as length of treatment may have only slight relation to other measures of outcome, but cases exceeding the 90th percentile of this indicator may be selected for

detailed utilization review and may show an above average incidence of treatment errors. Most monitoring in mental health centers is carried out informally through individual supervision and case conferences, and through utilization review procedures. The concern in this paper is with systematic information gathering to supplement and strengthen these more informal monitoring procedures.

One of the important purposes of monitoring is to maximize outcome quality as a ratio to program cost. In practice this issue is usually simplified to improving outcome quality at a given level of cost, or reducing costs at a given level of quality. The clinician tends to focus on the former, the cost accountant on the latter, each running the risk of losing sight of the common goal. In selecting indicators for monitoring, one should therefore seek a balance between "process" indicators of efficiency and outcome indicators of effectiveness. Process indicators are generally produced in the ordinary course of program operation, and can be monitored at relatively little cost. This is true for some outcome measures as well, but considerable expense is required to directly assess other important outcomes, such as the client's social functioning and symptom expression some time after the end of treatment. A certain minimal level of outcome assessment is useful to include in the monitoring information of any management information system.

Three Minimal Routine Outcome Monitoring Procedures

The first is a standardized procedure for a global judgment of functioning. This would supplement or replace the traditional rating of global improvement made at the termination of treatment. It would be recorded routinely by the clinician at intake and at the termination of treatment. This could be supplemented by a follow-up global rating at one or more fixed times following intake, either by the clinician or someone specifically responsible for followup contacts. The cost of such contacts can be controlled by sampling only certain clients for followup rather than contacting everyone. Selection of clients for followup contact should follow a modified random procedure so that each treatment program or type of service is adequately sampled within, say, each year, allowing time trends in outcomes to be noted from year to year.

A generally recommended global assessment procedure widely used in studies of psychotherapy is the Menninger Health-Sickness Rating Scale (Luborsky 1962). It covers a very wide range of functioning, and provides detailed rating anchors to enhance the reliability of the rating without extensive rater training. Unfortunately, it is a bit too cumbersome for routine use. Spitzer, et al., (1973) have constructed a similar but simpler instrument which may function as well as the Health-Sickness Rating Scale, called the Global Assessment Scale. It shows excellent potential as an economical global scale for adult clients of direct treatment services. A recent version of the scale plus instructions for its use are shown in exhibit 8-1. An

adequate global scale for rating children is not available but probably could be developed. The outcomes of indirect services such as consultations and education do not lend themselves to a simple global rating approach. However, the client satisfaction and goal attainment approaches described below can be adopted for children and for indirect services.

Client satisfaction is the second outcome approach. Such a measure can be obtained at the termination of treatment or as part of the sampled follow-up strategy described above. Usually a set of several rating items covering various aspects of satisfaction will give a more reliable measure than a single global scale. A number of scales have been used in treatment research and in program evaluation, and no single scale has yet emerged as preferable. Ratings of client satisfaction have recently been reviewed by McPhee, et al. (1973).

The third approach to outcome monitoring involves the formulation of individual service outcome goals for each client, constructing rating scales for each of these goals in terms of observable indicators of their attainment, and subsequently judging the actual attainment of the goals which were set. The method has been developed and popularized by Kiresuk and Sherman (1968), and is now being extended by a number of others. Kiresuk and his group have explored several potential problems with this method, such as variation in aspiration level of the goal-setter, reliability in goal setting, goal scaling, and goal attainment judgments, and the method seems to be workable in these respects. Its conceptual advantage is the adaption to changes in client groups, or in individual clients over time, attempting always to identify the most relevant goals, and hence the most relevant and sensitive outcome measures. This is also a conceptual weakness, since no common or consistent outcome goals are routinely measured. As a monitoring technique, however, it aids organizing and recording treatment planning and review in clinical case conferences and individual supervision and training. In at least one known instance, the initiation of the goal-setting procedure resulted in a considerable reduction in case conference time (Shaw, personal communication). Goal attainment scaling manuals are now beginning to appear for use in specific treatment programs such as methadone maintenance (Putnam et al. 1973) and mental health services for children (Shaw and Ricks 1973).

Goal attainment scaling is much too time-consuming to use if the only purpose is to obtain a monitoring of outcome measures. The advantage, however, is in many settings; goal attainment scaling is a very useful part of routine treatment planning and supervision. The formulation of treatment goals and construction of the outcome scales can be done without performing a formal follow-up evaluation, and in that form bears some resemblance to the "problem-oriented record" (Hurst and Walker 1972). The outcome assessment can then be done by the clinician at treatment termination and/or as a followup at a fixed

EXHIBIT 8-1

Global Assessment Scale (GAS)

Robert L. Spitzer, M.D., Miriam Gibbon, M.S.W., Jean Endicott, Ph.D.

Rate the subject's lowest level of functioning in the last week by selecting the lowest range which describes his functioning on a hypothetical continuum of mental health-illness. For example, a subject whose "behavior is considerably influenced by delusions" (range 21-30) should be given a rating in that range even though he has "major impairment in several areas" (range 31-40). Use intermediary levels when appropriate (e.g., 35, 58, 62). Rate actual functioning independent of whether or not subject is receiving and may be helped by medication or some other form of treatment.

Name of Patient_____ID No._____ Consec. No._____Code No._____

Admission Date_____Date of Rating_____ Rater_____

Rating_____

100 | 91 No symptoms, superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his warmth and integrity.

90 | 81 Transient symptoms may occur, but good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, "everyday" worries that only occasionally get out of hand.

80 | 71 Minimal symptoms may be present but no more than slight impairment in functioning, varying degrees of "everyday" worries and problems that sometimes get out of hand.

70 | 61 Some mild symptoms (e.g., depressive mood and mild insomnia) OR some difficulty in several areas of functioning, but generally functioning pretty well, has some meaningful interpersonal relationships and most untrained people would not consider him "sick."

60 | 51 Moderate symptoms or generally functioning with some difficulty (e.g., few friends and flat affect, depressed mood and pathological self-doubt, euphoric mood and pressure of speech, moderately severe antisocial behavior.)

50 | 41 Any serious symptomatology or impairment in functioning that most clinicians would think obviously requires treatment or attention (e.g., suicidal preoccupation or gesture, severe obsessional rituals, frequent anxiety attacks, serious antisocial behavior, compulsive drinking).

40 | 31 Major impairment in several areas, such as work, family relations, judgment, thinking, or mood (e.g., depressed woman avoids friends, neglects family, unable to do housework), OR some impairment in reality testing or communication (e.g., speech is at times obscure, illogical or irrelevant), OR single serious suicide attempt.

30 | 21 Unable to function in almost all areas(e.g., stays in bed all day) OR behavior is considerably influenced by either delusions or hallucinations OR serious impairment in communication (e.g., sometimes incoherent or unresponsive) or judgment (e.g., acts grossly inappropriately).

20 | 11 Needs some supervision to prevent hurting self or others or to maintain minimal personal hygiene (e.g., repeated suicide attempts, frequently violent, manic excitement, smears feces), OR gross impairment in communication (e.g., largely incoherent or mute).

10 | 1 Needs constant supervision for several days to prevent hurting self or others or makes no attempt to maintain minimal personal hygiene.

Global Assessment Scale (GAS)

The Global Assessment Scale is a single rating scale for evaluating the overall functioning of a patient or subject at a specified time period on a continuum of psychological or psychiatric health-sickness*. The time period that is assessed is generally the last week prior to an evaluation, although for special studies a longer time period, such as one month, may be more appropriate.

The range of scale values is from 1, which represents the hypothetically sickest possible individual, to 100, the hypothetically healthiest. The scale is divided into ten equal interval ranges beginning with 1-10, 11-20 and ending with 81-90 and 91-100. The defining characteristics of each 10 point range comprise the scale. The two highest ranges, 81-90 and 91-100, are for those fortunate individuals who not only are without significant symptomatology, but exhibit many traits often referred to as "positive mental health," such as, superior functioning, wide range of interests, social effectiveness, warmth and integrity. The next range, 81-80, is for individuals with no or only minimal symptomatology but who do not possess the positive mental health features noted above. Although some individuals rated in the three highest ranges may seek some form of assistance for psychological problems, the vast majority of individuals in psychological or psychiatric treatment will be given ratings in the ranges from 1 to 70. Most outpatients will be in the four ranges from 31 to 70, and most inpatients on admission will be in the four ranges from 1 to 40.

*The original idea for a single rating scale of 1 to 100 for the health-sickness continuum with defined anchor points is embodied in Luborsky's Health Sickness Rating Scale. The Global Assessment Scale differs from it in the larger number of defined ranges, the avoidance of diagnostic considerations in defining anchoring points, and the use of brief clinical descriptions in the anchoring definitions.

Because the scale covers the entire range of severity it can be used in any situation or study where an overall assessment of severity of illness or degree of health is needed. In most studies only a portion of the scale will be actually used. For example, community studies will rarely have individuals in the lowest ranges, whereas studies involving newly admitted psychiatric patients will rarely have individuals in the highest levels. However, following a course of treatment, many individuals who may have been rated in a very low range on admission may be sufficiently recovered at follow-up to warrant a rating in one of the highest ranges. This is particularly true of patients with affective disorders whose functioning between episodes may be normal or even superior. It is also true that many patients given a diagnosis of schizophrenia during a period of personality disorganization, eventually recover and may later function at a relatively high level.

Since the ratings are for overall functioning during a specific time period, it is important that the rating be based on functioning and symptomatology during that time period and not be influenced by considerations of prognosis, previous diagnosis, or of the presumed nature of the underlying disorder. In a similar fashion, the rating should not be influenced by whether or not the patient is receiving medication or some other form of help.

The information needed to make the rating can come from any source: direct interview of the patient, a reliable informant, or a case record. Little information may be needed to make a rating at the low end of the scale. For example, knowledge that the individual made a serious suicidal attempt which almost resulted in his death is sufficient by itself to warrant rating a patient in the 1-10 range. On the other hand, before an individual can be given a very high rating it is necessary to not only determine the absence of symptomatology and any serious impairment in functioning, but also to ascertain the presence of signs of "positive mental health."

In making a rating one first selects the lowest range which describes the functioning during the one week time period. For example, a subject whose "behavior is considerably influenced by delusions" (range 21-30) should be given a rating in that range even though he has "marked impairment in several areas" (range 31-40). Then the defining characteristics of the two adjacent ranges are examined to determine whether the subject is closer to one or the other. For example, a subject in the range 31-40 who is much closer to the 21-30 range than the 41-50 range would be given a specific rating of 31, 32 or 33. A subject who seemed to be equally distant from the two adjoining ranges would be given a rating of 34, 35, 36, or 37.

time following intake. Followup can, of course, be done on a sampling basis, just as with the global functioning and client satisfaction measures.

Why Three Different Approaches

In the first place, the correlation between different outcome measures is quite variable. In some settings, with some client groups, the three recommended measures will yield similar results, while on other occasions they will not. The measures also differ in their meaningfulness to various audiences. Client satisfaction is a generally face-valid measure which all agree is a desirable outcome, other things being equal. The Global Assessment Scale at intake allows a comparison of programs in terms of the severity of impairment of their applicants, on a simple scale which can easily be described to any outside group. Average Global Assessment Scale Scores at intake and termination can provide a vivid "snapshot" of typical change during treatment in various programs, and along with client satisfaction can be useful in discussing the program with funders and community groups. The Global Assessment Scale will be relatively insensitive to the subtle changes sought by mildly impaired clients, however. It is here that individual goal attainment scaling should be more sensitive, and more relevant to the concerns of clinicians about program outcomes. Goal attainment and client satisfaction will also be important in assessing indirect services. In these and other ways the three approaches complement and strengthen each other. Many programs are trying even more ambitious approaches to monitoring program effectiveness, but something like this minimal approach must be considered by every mental health program which aims to examine its own effectiveness and to be accountable to its various stake-holder groups.

Demonstrating Overall Program Effectiveness

In the previous section some simple approaches to monitoring program effectiveness were discussed. Along with the appropriate cost-finding procedures, these approaches will also allow the monitoring of the quality as well as the quantity of output per unit cost. This is the current, very rudimentary state-of-the-art in the area and is a level which is not even reached by most centers. Therefore these monitoring procedures also provide ample material for the program manager in dealing with various stakeholder groups. No one else has anything better. No one else has any direct evidence with which to answer the question, "Is your program as effective as it should be?"

If program effectiveness is to be measured, the comparison of competing programs is an unavoidable part of this process. The comparisons may be direct, or be made indirectly against "norms" or averages, but the effect is the same. In the world of the huckster, where we are all taught "how to lie with statistics". this presents some formidable problems. The funder cannot get comparative effectiveness data which he can believe without very expensive auditing

procedures. The local facility manager, on the other hand, cannot generate outcome information which is interpretable or believable at any price, because he lacks a generally acceptable "independent audit" procedure comparable to the one he uses to certify his financial records. Some semblance of an independent audit is attempted by hiring an outside evaluator to "evaluate" a program. Without any systematic outcome monitoring in the ongoing operation of the program the outside evaluator is approximately in the position of someone trying to audit the financial affairs of an organization which keeps no financial records.

Normative studies of program effectiveness should be undertaken, to make comparative program effectiveness assessment possible. This is no small undertaking. This will first require a series of exploratory studies to develop adequate methods, including simple audit procedures. Next needed are studies examining extra program circumstances which affect outcome, such as characteristics of the catchment community and of the clients served. These studies will need to be carried out for many different aspects of program effectiveness. As the measurement and auditing procedures are worked out and extra-program parameters sorted out, a few rudimentary norms will become available for a few selected aspects of program effectiveness. As programs begin to use these norms to assess and to demonstrate their effectiveness, adequately audited program data will accumulate to strengthen the developing norms.

For the immediate future, however, no such norms in any usable form are likely to appear, and certainly none are available now. To "demonstrate" program quality, the evaluator can compare a few "process" features of the program to what little normative data is available. For example, the National Institute of Mental Health can provide the distribution of data collected from community mental health centers via the annual Biometry Inventory (Taube, 1971). To give a specific example, data related to accessibility of facilities was summarized by Bass (1972). Comparison can be made of the hours of the week the center has a facility open to provide emergency services, and note where the center falls on the distribution of this characteristic among other mental health centers. Since accessibility of care is a public goal for mental health centers, and hours of service are one aspect of this, a manager could say that the center is "reasonably adequate" in this specific feature if the center is relatively high on this distribution. More such "process" norms will become available as systematic review procedures are applied, such as California's Management Review Protocol (Maguire et al. 1973), and the overall distribution of results are published. In only a few years comparison of one's program to a wide variety of normative data should be possible. This will have limited value, however, until program effectiveness can begin to be studied directly.

Summary

This paper has reviewed the ways in which outcome measurement can relate to integrated management information systems in mental health programs. Three circumstances which motivate outcome assessment were discussed. Comparative clinical trials can be focused on specific management decisions. Routine monitoring of simple outcome indicators can help detect program strengths, weaknesses and trouble spots. Finally, outcome assessment is a necessary step in demonstrating general program effectiveness.

Two types of outcome studies are applicable to common management decisions. Simple comparisons of service strategies are useful when exploring new service delivery methods. Treatment selection studies are more complex, but focus on the important goal of selecting the best service for each client, and optimally allocating the center's treatment resources. A number of suggestions were made about how to select situations for study in order to maximize the practical return from studies of this type.

For monitoring purposes, a minimal level of outcome measurement was recommended as a standard component of an integrated management information system. This consisted of a simple global assessment of functioning, assessment of client satisfaction, and the scaling of individual goal attainment. The Global Assessment Scale can be used routinely at intake and termination of service, and systematic client goal setting can be installed as a clinical management procedure wherever applicable. The followup of selected samples of clients at a fixed time after intake was suggested, using all three outcome measures.

The question of demonstrating general program effectiveness was discussed. This requires either direct interprogram comparison, or the development of normative data for various aspects of program effectiveness. The difficulties in doing this were mentioned, but developmental research was recommended to be undertaken in this area. In the meantime, only informal noncomparative methods are available to indirectly suggest the level of a program's overall effectiveness.

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CHAPTER 9

CONSULTANTS--HOW TO WORK WITH THEM FOR FUN AND NOT-FOR-PROFIT

Consultants! You know--the guys who wear dark tweed vested suits, cordovan wingtips and hats. They fly in on DC-10's, carry attache cases, and are the mysterious men who lurk in the corridors and ask probing questions of the employees. In Up the Organization, Robert Townsend (1970) shares his view of management consultants:

The effective ones are the one-man shows. The institutional ones are disastrous. They waste time, cost money, demoralize and distract your best people, and don't solve problems. They are people who borrow your watch to tell you what time it is and then walk off with it.

Don't use them under any circumstances. Not even to keep your stockholders and directors quiet. It isn't worth it.

Many organizations who've been through it will react promptly, thoroughly, and effectively to the threat: 'If you fellows don't get shaped up in thirty days so you're a credit to the rest of the company, I'm going to call in Booz, Allen.'

The foregoing descriptions and others of a similar vein have developed over a period of years by those who may or may not have had experience with consultants. This chapter attempts to lift the mystique shrouding consultants by addressing the following questions:

- What is consulting?
- When can a consultant be useful to a CMHC?
- How should a consultant be selected for a CMHC?
- What interaction should take place between a CMHC and a consultant to maximize benefits?

What is consulting?

A general definition of consulting is difficult. Consultants come in all shapes and sizes when it comes to experience, reputation and technical ability. The American Institute of Certified Public Accountants (AICPA) (1969) defines the nature of consulting as follows:

Management Advisory Services by independent accounting firms can be described as the function of providing professional advisory (consulting) services, the primary purpose of which is to improve the client's use of its capabilities and resources to achieve the objectives of an organization.

Allison L. Augur, Jr. (1971) offers a further breakdown of consultants.

There are also some general classifications that may help you to understand the consulting profession. To begin with, there are two basic types of consulting organizations viewed from the range or scope of the services they provide:

- Specialists
- Generalists

The specialists vary in size from individual, independent consultants to large consulting organizations. The specialization can be by technical area, such as production control, plant location, executive search, computerized systems; or by industry, such as hospitals, restaurants and retail establishments. At times, this type of consulting firm even specializes in a particular technical area in a particular industry. An example of this would be computerized systems for hospitals.

The generalist type of consulting firm, as the name suggests, provides a broader range of technical services to more types of organizations. This is made possible by maintaining a consulting staff of individual specialists drawn from a wide range of specialty areas.

There is one further classification that you may encounter. The generalists can be further subdivided into CPA and non-CPA or into ACME or non-ACME. The particular terminology used generally depends on whether you are listening to someone from an organization that is a member of the Association of Consulting Management Engineers (ACME) or to a member of the Management Advisory Services staff of a firm of Certified Public Accountants.

Hal Higdon in The Business Healers (1969) (required reading for anyone in consulting or using consultants) describes management consulting as follows:

The management consultant counsels the chief executive and other members of management on managerial and operating problems of the enterprise. His activity is not confined to solving these problems in a purely theoretical, abstract, or technical sense. He does these things, it is true; but the problems with which the consultant deals are action-oriented, and his thinking must be directed toward improved managerial and economic performance and results for the client. This must include the creation of understanding and commitment toward a particular change and methods whereby it can become integral to the client's organization. The consultant must urge and persuade the client and, when necessary, help him toward a sound course of action. The change program must include emotional and value as well as informational elements for successful implementation. Relying on rational persuasion is not sufficient. Most organizations possess the knowledge to cure many of their problems; the rub is utilization.

This is the art of management counsel, and it transcends the body of knowledge and skills the consultant possesses. This art includes at least

four distinct aspects: fidelity and its concomitant responsibilities. understanding, persuasion, and education. The consultant is a fiduciary; that is, he stands at one end of a particular type of confidential relationship. He must think through what he owes his client in terms of responsibility, of candor, of ability and willingness to turn down an assignment which either exceeds his competence or, even more important, does not appear to him to be what the client really needs or should do. Fidelity to his client is his duty, including vigorous persuasion toward a sound course of action. In exercising this responsibility, the consultant must create a mutual understanding of the problem and persuade client executives to put his recommendations into effect so they will get lasting results. Finally, he has responsibility for the improvement and education of the client's employees.

These four aspects constitute the essence of the client-consultant relationship. In addition to these factors, three other ingredients play important parts in this relationship. They are proper communication, mutual cooperation, and confidence in each other. The professional practices employed by the consultant in the conduct of client engagements represent the technical part of this relationship.

When Can a Consultant be Useful to a CMHC?

A consultant as an organizational therapist can assist in solving almost any business problem. The business problems of a CMHC have been complicated with the current demand for financial and statistical information. Even though training tools are becoming more available (such as this monograph), CMHCs typically do not have the inhouse technical expertise to identify and attach these problems. A consultant can be of significant assistance both in general problem identification and providing specific recommendations of alternative solutions.

A CMHC, looking to a consultant for help, should expect assistance in the following aspects:

- Defining real organizational problems as opposed to symptoms of problems
- Determining if the consultant can be of help on solving the problem defined
- Analyzing alternative solutions to the problem
- Recommending the optimum solution
- Assisting in implementation of corrective action

Defining Problems. Managers in organizations often believe they identified an organizational problem and proceed to solve it. All too often they have simply identified the symptom of a problem rather than the problem itself. The procedure generally followed is to treat the symptoms which is a short-range approach. In the long-range the major problem persists. Taking aspirin for a cold does not cure the cold but rather minimizes an uncomfortable feeling for a short time. To feel better the next day, more aspirin is required. As with the cold, organizational problems cannot be solved by treating symptoms. A budget variance problem thought to be caused by improper cost allocations cannot be solved by using a different allocation method, if the real problem is the initial identification of service units and the prediction method used for forecasting. A consultant offering indepth diagnostic analysis to aid problem definition can be beneficial from a long-range perspective.

Can the Consultant Help Solve the Problem? Once the real problem has been defined, the CMHC management and the consultant must determine in tandem if the consultant is qualified to attack the problem. The consultant's past experience and expertise should be critically examined. If both management and the consultant believe the consultant can be of assistance in solving the problem, they should proceed. If not, the consultant should step away from the engagement and perhaps suggest other consultants who could be of help.

Alternative Solutions. A consultant proceeding to solve a defined problem will normally find a number of suitable solutions. The solutions will come as a result of extensive fact gathering and analysis. Each alternative must be analyzed in light of soundness in relation to organizational objectives, long-range benefits and practicality of implementation.

Recommendations. Analysis of alternatives and the resulting recommendations are often difficult to distinguish. Alternatives that best meet organizational objectives should be formalized into recommendations and communicated to the CMHC management in a lucid manner. The CMHC management and the consultant are then in a position to evaluate the most applicable recommendation and begin an implementation stage.

Implementation. A recommendation to the CMHC management should contain an implementation schedule. The consultant's role in the implementation phase should be supervisory and advisory. Long-range benefits of the recommendations can be lost without full CMHC management participation. The CMHC management must be an integral part of the implementation phase if management expects to understand fully the inner workings and synchronizations of the corrective action and expects to properly maintain benefits from the implementation over the long run.

How Should a Consultant be Selected for a CMHC?

While expertise in terms of technical experience is generally desirable, expertise in CMHCs is not a necessity for a good consultant. "Experts"

may not be able to offer fresh ideas. A consultant should above all be an "expert" in defining existing problems, problem-solving techniques and the technicalities of the given problem. Beware of consultants who have immediate "packaged" solutions! Solutions to management problems ordinarily do not come in cookbook form and a consultant who quickly suggests such a solution without deeper study is probably not doing his job properly. Augur (1971, pp. 409-412) expands these issues by describing in general how a consultant should be selected.

We have found that the best way to select a consultant is to follow a series of specific steps that will not only aid in this decision, but also will help answer the question of the advisability of using an outsider and at the same time provide a firm foundation for any improvement projects.

Determine what is to be done
Evaluate your resources
Call in consultants
Select a consultant

Determine What Is To Be Done. The first step should be to define your problem as you see it--or at least identify the symptoms of the problem with which you are dealing. If it is an improvement that is desired, establish your objectives. This definition should be done formally and committed to writing. Realistically, it should be recognized at this point that this is the initial problem definition. If consultants are subsequently involved, you should seek their analysis of the situation before completing the problem definition upon which their work will be based.

Evaluate Your Resources. The next step is to evaluate what manpower and experience is available, within the company, to deal with the problem or to effect the improvement. This evaluation should be realistic! If your company is like most, you have files full of projects that are only 80 percent done because something more important came along. Determine what needs to be done, who is going to do it, how long it will take, and establish a detailed, time-based plan for the accomplishment. If you can do it yourself, do it. If you lack the resources or question your analysis, move to the next step. One further suggestion: a good way to determine the chances for success for your company in an improvement project is to check your track record of successes on earlier projects of a similar nature.

Call in the Consultants. Now you do have a problem; whom do you call? As we discussed earlier, you are in the land of CPA/non-CPA; ACME/non-ACME; specialist/generalist; big firm/small firm. Your task is to obtain the name or names of reputable consulting firms providing the type of service you require. Sources for these names are your firm of certified public accountants, industry associations, other companies in your community, and other companies in your industry. Get in touch with these sources, and then on the basis of the information gathered, contact one or more consulting firms.

Select a Consultant. Earlier we discussed this process from the consultant's viewpoint. Now let us look at it from yours. As we saw, you are going to be visited by one or more members of the consulting firm. In a brief period of time they will be gathering the information necessary to determine--

- if and how they can be of assistance to the company,
- how long it will take,
- how much it will cost,
- what type of consultant experience should be used on the project.

You should make yourself, your people, and your records available to them so that they can do the best job possible in the shortest period of time.

At the conclusion of their visit, or shortly thereafter, they will present their proposal to the company. At this time appropriate members of company management should make a point to discuss this proposal with the consultants. You should not rely on the written proposal alone. You should make sure that you have a complete understanding of the scope, approach, time framework, and cost of the proposed services. In addition you should satisfy yourself of the qualifications of both the consulting firm and the individuals who will participate in the engagement.

Several words of caution, though.

- Much has been written about selecting a consulting firm on the basis of qualifications of the individual assigned to the project. While this advice has some merit, do not neglect to evaluate the consulting firm itself. This is the organization that will provide the resources and guidance to the individual consultant as well as the consultants with other technical skills if required later in the engagement.

- Do not insist on having a consultant with experience precisely in your industry. He should have the experience necessary to understand your organization and appreciate your problems, but this does not necessarily require experience specifically in your industry. One of the advantages of using consultants is that they can bring fresh ideas from other industries. You know your industry and your company; so why pay to have this experience duplicated? Obviously, this does not hold true for technical experience. If you are having production-control problems you want someone with a proven record in production control, and this holds true for other technical areas, such as cost accounting, computer feasibility, salary administration.

- Evaluate carefully any differences in scope between your analysis of the problem and that of the consultants. Very often we find

that a prospective client is aware of the symptoms of a problem, but has missed the basic cause. In some cases he will even attempt to limit our participation to just the symptoms. If we cannot change his mind, we will not accept the engagement. In other cases, we have even been asked to do the wrong job. Again, it is our job to define an engagement that will be of benefit to the client or decline to propose.

- *If you still have questions regarding the necessary scope of the project, do not hesitate to ask the consultant to undertake a brief, preliminary study to define the problem. You will probably have to pay for this, but the cost will be small compared with what would be spent on a full-scale engagement on the wrong problem. Another advantage of this approach is that you will have a chance to see the consultants in action before you commit yourself to the main project.*

At this point in time, your should have all the information necessary to make your decision as to 'go/no go' on the project, consultant or no consultant, and which consultant, if you called in more than one.

What Interaction Should Take Place Between a CMHC and a Consultant to Maximize Benefits?

A successful consultant uses client skills to the fullest extent possible. Full CMHC management participation in any consulting engagement is key to understanding the CMHC organizational problems and solutions. Consultants and CMHC managers should work together with free exchange of ideas. Augur (1971, pp. 413-414) again expands these issues in describing how to maximize the benefits of consulting.

On occasions, consultants have had to deal with clients who either treated the consultant's work on one hand as having been created in heaven and passed on to the client engraved on stone tablets to be neither comprehended nor questioned or on the other hand as having been dreamed up by confidence men who were attempting to take advantage of the company. Needless to say in either of these situations, a consultant must spend considerable time before he can establish the proper company climate for the accomplishment of change, and this is time that would be much better spent on the project itself.

It is possible to summarize in three words the secret for getting your money's worth from consultants:

- *Understand.*
- *Support.*
- *Communicate.*

Understand

- Understand the consultant's preliminary analysis of your problem or project as presented in his proposal letter.
- Understand the nature, scope, approach, time, and fees of his proposed services.
- Understand his recommendations not only as to what to do, but how you organize for and carry out these recommendations.

Support

- Provide adequate physical facilities.
- Cooperate and ensure that your subordinates cooperate.
- Provide proper manpower support in both number and quality.

Communicate

- Provide required data to consultants
- Ensure a free flow of information, in both directions, between company and consultants as to--
  - plans for project,
  - status of project,
  - problems incurred,
  - findings.

These three words can even be summarized into one--Participate.

It is your company, or department, or problem. The consultant has been retained to help you. He cannot do the job himself. You must participate--

- intellectually--by understanding what he is going to do, what he is doing, and what he has recommended;
- physically--by giving of your time and that of your subordinates.

Participation is of prime importance during the implementation of the recommendations. This participation should be as widespread as practical and involve as many different people as possible. We very often recommend implementation of recommendations utilizing a task force/steering committee approach. In this approach, the task force is made up of middle-management personnel drawn from the various areas engaged in the project. In a production-inventory control engagement, for example, this might include personnel from production control, production, product engineering, and data processing. It might also include personnel from industrial engineering and cost accounting committed on either a full-time or, at least, part-time basis.

This task force would report to a steering committee made up of senior management personnel who would serve to guide and evaluate the performance of the task force. We would also desire and expect understanding and support from top management. Beyond this, we would encourage the task force to involve as many other people as possible because, for the reasons previously outlined, this involvement maximizes the chance for project success.

Parting Shots

A number of unsavory attitudes have developed toward consultants over the years. Despite these condemnations, consultants can be useful to CMHCs for problem identification and successful implementation of solutions. Maximum benefit from a consulting engagement comes when a CMHC carefully selects consulting help, understands consultant-client relationships, and participates fully in the consultant-client interaction.

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