

Reaching for Accountability in Community Practice

IRVING SILVERMAN, Ph.D., M.P.H., RICHARD BROTMAN, Ph.D.,
FRED SUFFET, M.A., and DALE ORDES, A.B.

THE COMMUNITY mental health movement demands evaluation. Programs must employ researchers and submit to being measured. Is there a danger that many programs will die violently of a failure to measure up? We think not. The researcher does not have the wish and does not have the power, technically or politically, to mark a program for destruction.

The researcher can, however, help to build up a program. That is the main point we shall try to make in this paper. The real danger in the demand for evaluation is triviality and missed opportunity: the danger of employing the researcher only to waste his best capabilities.

If the researcher is restricted to a definitive therapeutic trial of a program or some of the elements in it, then he is generally doomed to fail for lack of rigor. The type of well-controlled, double-blind experiment that is needed can rarely, if ever, be arranged in community projects. What can be done is a set of measures before and after intervention takes place. With-

out such a before-after design, the entire job of evaluation rests on impression and assumption; whereas, with such a design, it rests on a combination of evidence and assumption. The before-after design is better than nothing, but it does not go far enough in finding evidence that can support or constrain assumptions.

The before-after design is weaker than necessary because it neglects what happens during the process of intervention. If the process between input and output is impossible either to control or to randomize, it is nevertheless unnecessary to ignore that process. The alternative is to reach in and try to measure what goes on. Thereby, a before-after design becomes a before-during-after design. The purpose of the design is not only to grade the output of a program but also to monitor its processes.

If the demand for evaluation leads to a decision for monitoring, what soon follows is a great change in perspective on the role of research in programing. The potentials of monitoring change the logic of the situation. The original goal of evaluation changes to something broader, of which evaluation is only one aspect. The broader goal may be called "program accountability." This goal calls for a systems approach to programing in a research and development framework and requires collaboration between research and action in program design and in program management. Program

The authors are with the division of community mental health, department of psychiatry, New York Medical College. Dr. Silverman is research director, Dr. Brotman is chief of the division, and Mr. Suffet and Mr. Ordes are research associates. This paper is based on one presented at the 45th annual meeting of the American Orthopsychiatric Association in Chicago, March 22, 1968.

accountability gives the program managers not only final quality testing but also current quality controls.

Our topic of accountability is part of a general problem that has come to the fore in many disciplines with the advent of the cybernetic revolution. Work has been reported in various aspects of mental health. A recent supplement to the *American Journal of Psychiatry* was devoted to "computers in psychiatry," covering such topics as clinical decision process, psychiatric diagnosis, and interpretation of psychological tests (1). Such topics are germane but not essential to the task of accountability, which is greatly aided by computer technology and yet could be done without it.

Closer to our topic is the work done at the Institute of Living in Hartford, Conn., that monitors the day-to-day behavior of hospitalized patients (2, 3). Pollack (4) and Tupin (5) have made research reports with "monitoring" in the title, but each refers only to parts of what we are talking about. Pollack deals mainly with background characteristics of patients. Tupin's study is designed to minimize the researcher's "interference in the natural course of the clinical treatment," while we are talking about research collaboration in that course. Person (6) has reported work on "a statistical information system for community mental health centers" that is directly in line with our topic. He emphasizes the administrative needs of a center, but he does not design for evaluation of outcomes or close monitoring of the intervention process at the level of a program. We do the reverse in this paper. Brotman and Freedman (7) have given an earlier account of the approach in our setting.

This paper describes the approach we have taken, but it does not include findings or technical specifications. It is not intended as a research report or as a systems "package." It is testimony about our experience, on what we have seen as the important issues, and how we have tried to resolve them. We trust that that will be useful to others at this stage in the development of community mental health or of community practice in general.

The approach we describe was developed in the division of community mental health of the department of psychiatry at New York Medical

College. A brief description of our setting may be of interest. The division was founded in 1960 under its present director, Dr. Brotman. The division began with an outpatient program on alcohol problems in 1963 and added a similar drug program in 1965. The division has continued these programs within its Regional Center for Studies in Substance Use under a grant from the National Institute of Mental Health beginning in April 1968. Patients have come from all boroughs in New York City and from outlying areas.

The staff of the outpatient programs has usually numbered about 30 persons. Principally, they are from the disciplines of psychiatry, psychology, sociology, social work (casework and community organization), and public health nursing. We usually employ about six nonprofessional "community mental health workers." Our computer programing needs have been met by one staff member trained in systems analysis and statistics. Virtually all staff members have been employed full time. Most are involved in a wide variety of activities in our outpatient programs and in such other things as teaching or training, preventive work in secondary schools, research projects, and community development projects of the Metropolitan Community Mental Health Center. The center, under the direction of our department, serves the areas of East Harlem and Yorkville in Manhattan.

A variety of programs has posed for us a variety of problems in program accountability and has led us to the task of overall accountability in a health center or a consortium of agencies. To make this discussion manageable, however, we will cover only work in our two outpatient programs. We have had our longest experience in these programs and have used them as a laboratory for a small-scale pilot effort that still continues.

Our approach to program accountability involves a sequence of four broad steps.

- The first step is to organize. That requires a more or less explicit model of organizational objectives and roles and arrangements for communication and control among participants.

- The second step is to instrument. Instrumentation consists of specifying, in a formal way, how the things that are material to the organization are to be done

and also documented for storage and retrieval of systematic information.

- The third step is to analyze. Information is processed and interrelations are described and evaluated.

- The fourth step is to negotiate. The effort to apply what one has learned about a system of operations is viewed as a process of systems negotiation, of dealing with the multiplex systemic supports of what one would like to change.

The first three steps are based on rationalism while the fourth step is based on empiricism. The constant goal is human service. The perennial danger is to start defending rational positions as ends in themselves. The process of accountability is intended to loop back on itself and lead to adaptive change in its own elements of organization, instrumentation, analysis, and negotiation.

An Organizational Model

We perceive a community as a social system operating by a hierarchy of types of component systems: institutional systems govern organizational systems, which govern interaction systems, which govern the behavior of individuals in their various social roles. We define a community health problem as one that implicates more than the level of the individual, requiring further intervention at higher levels of social system operation (8).

Viewing an organization as a means of governing interaction systems, we need to consider what kind of interaction we intend. How would we have the person in the community relate to our facility? We see three main alternatives.

The person may relate to the facility as a customer, or as a constituent, or as a member. If the person is a customer, then the rules of the marketplace govern the whole, and pricing can adjust supply and demand. If the person is a constituent, then the rules of politics apply, and a facility serves as one of the power brokers who adjusts competing demands. If the person is a member, then the rules and other social control mechanisms of membership groups regulate the whole, and participants hold each other accountable to the group norms that govern mutual expectations.

Traditionally, health care has been divided between a private sector that relates to customers and a public sector that relates to constituents. In public health practice, the domi-

nant reality has been a wall between the private sector and the public sector, a wall that guards the private preserve. In community mental health practice, we believe, the interface between private and public sectors should be like a permeable membrane. We reject both the customer relation and the constituent relation in favor of a membership concept.

The persons we interact with have standing as members of our community facility by virtue of their membership in the community. Thus, patients are members; but the case, as we see it, is generally much broader than the patient. The case includes others who are involved in the patient's well-being, including other agencies and their personnel. All of these other elements of a case, public or private, are members too. We speak, therefore, not of our accepting a patient, but of our joining a case.

A membership concept raises questions about the (jealously guarded) privacy rights of all bureaucratic structures, public and private. Can a facility become more effective, without undue danger to its existence, by making some of its inner workings more visible and penetrable to other members of the community?

In line with such thinking, we constructed the model that appears in figure 1. The model, abstract and normative, shows how, in principle, we now think a community practice should be organized. Like any other chart or map, the model has omissions and distortions, but we find it descriptive of many features of our experience.

The set of four internal entries are missions of the facility: care delivery and community development aided by evaluation with monitoring. Each mission is framed by the organizational roles that are most involved in carrying it out. The nine types of roles are connected by main lines of communication and control. Each role is defined by which component system—community, intervention, or information—it belongs to at which level of authority.

The middle column of figure 1 portrays the intervention system, the action arm of the facility. The main role of the principals is to direct the facility by setting policy, which supervisors administer by creating and enforcing rules and regulations, working in direct contact with the

line workers, who carry out operations by actions which they must document for the record. Each higher level of authority sets limits on the next lower level.

How may an intervention system carry on a community practice? Not by governing the community in its professed sphere nor by professional abdication to community leaders. The figure calls for mutual "lateral penetration" between systems—a variation on the concept of "lateral invasion" of a bureaucracy (9).

Community roles, in figure 1, are represented by highly abstract elements. The groups at the policy level are actual or potential political constituencies. They may be membership groups, such as a labor union or a school. These groups may also be social categories, such as the young or the poor. Together, groups at the policy level form the structure of the community as a social system. Agencies are means of social control which need group support to exist. Cases exist when and as agencies see fit to define them.

Our model calls for "joinings" between elements of an intervention system and elements of the community without violating the organizational integrity of either system. The facility actively invites lateral penetration of its own bureaucracy. A single facility can act in that way on its own initiative, setting up agreements and setting precedents. It faces other facilities at all three levels of the community system; meeting them as groups concerned with public policy, as agencies concerned with administration of services, and as members of particular cases.

The relations between one intervention system and a community system can become very busy indeed. Principals and administrators need to know more about their operations than their eyes and ears can take in directly. They need research-trained people to fill the roles of an information system.

Even though the information system is an in-house system—its members paid by the facility—the system must preserve its integrity. That is done, again, by cooperation and lateral penetration. Research policy is aimed at getting analytic "intelligence" for intervention. The policy is administered by designers who create instruments to formalize operations and then

oversee data collection by means of the instruments.

Designers and supervisors must work in close collaboration. The designers' part is to enable a supervisor and his workers to do as they see fit, but in a manner that will yield systematic information on what they do. The designer may talk to anyone, of course, but he has no direct authority over intervention workers.

The analysts (who may be designers wearing another hat) do not feed their findings into the intervention system at their discretion. When and how that is done is a matter for negotiation with the intervention principals, because what the intervention system is told about itself may be sensitive or sensitizing for future operations.

Systematic information about a facility's operations is not the only kind of information that a facility can use, nor need it be the only contribution that a research arm may try to make. Action workers and research workers may pursue diverse practical and academic interests apart from their collaboration on an accountability system.

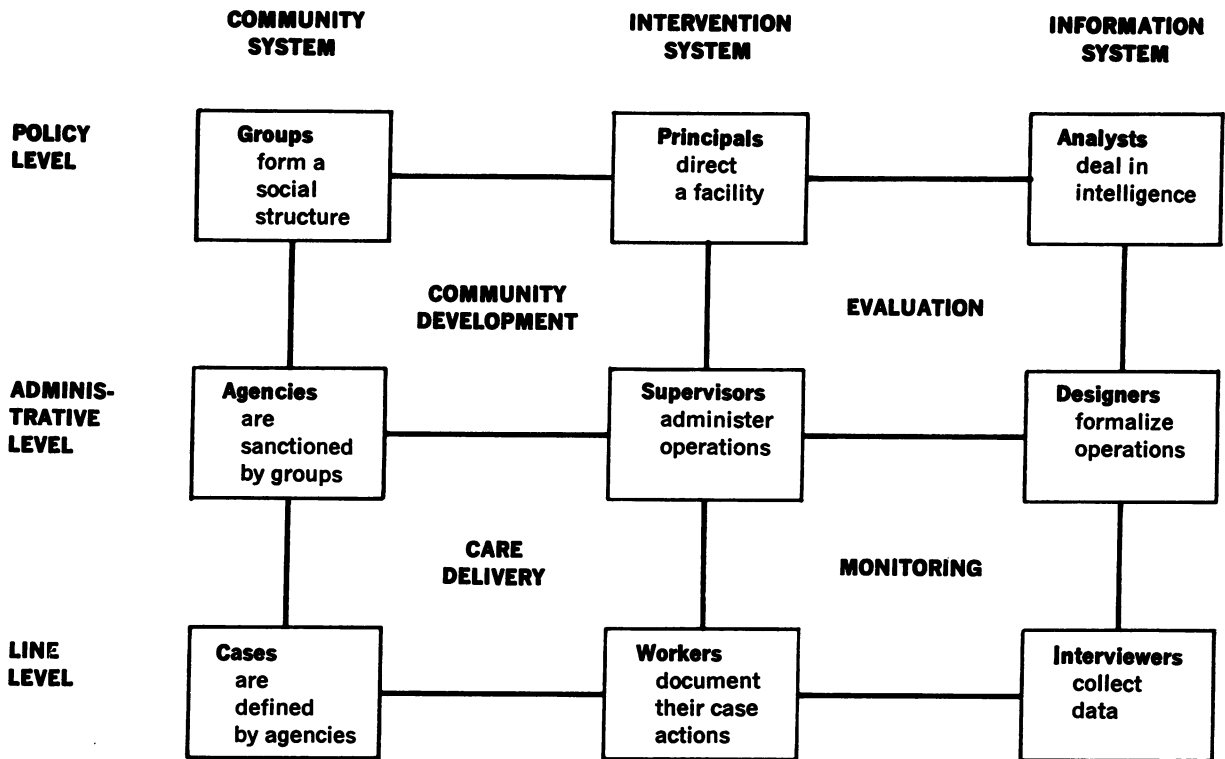
Ultimately, what does the researcher hope to accomplish in and for an action program? The ultimate goal, in our view, is the definition of problems for solution in action. We stress finding problems rather than finding answers. Answers may depend on many nonobjective factors such as taste, values, and political judgment. Problem definition is a task of scientific construction, of building a framework for discovery that can contain our concerns and relate them to each other.

How do we approach this ultimate goal of problem definition? We weave back and forth between speculations and empirical data. We take positions based upon theory, philosophy, and political outlook. These positions lead to a set of questions which must be operationalized to yield empirical data. The data reflect back on our operations, on our questions, and on our positions, suggesting changes. It is a method of successive approximations, each one blueprinted by instrumentation.

Instrumentation

Instrumentation is the means of translating a design for both action and research into operations that are systematic and replicable. In-

Figure 1. An organizational model for a community practice



strumentation is embodied in a set of forms for recording information and in written specifications on how the forms are to be used. Like an instrument in any other craft, a form may be more or less elegant in design, more or less powerful in its uses.

In designing and redesigning our forms, we have tried to extract some general principles of instrumentation for accountability. We distinguish four types of instruments by their primary purpose.

Data forms are used to gain and to record information. Five main data forms, the heart of our instrumentation, are described later.

Communication forms are vehicles for conveying information. Our screening interviewers' summary form is an example. Eight other forms of this type now in use are either code sheets or computer-generated lists covering staff, patients, and agencies.

Administrative forms are used to aid and control operations. Chief among these is the administrator's log, in which information is posted from data forms in order to prevent omissions or undue lags in routine processing

of cases. Other examples are the schedule of interview assignments, the case card for latest information to locate patients, and the staff card for day-to-day information to locate staff members.

Analysis forms are for the display of findings. Usually these forms are designed to be generated by the computer with the findings.

The data forms also serve purposes of communication and control. Research and administration components learn what is happening because each gets copies of data forms. That is done conveniently by the use of coated papers that require no carbons. For interview forms, only the face sheet is in multiple copies.

Forms are generalized as much as possible to foster a comparative approach across problem areas and across settings. We formerly designed a new interview schedule for each program but now have a unified schedule that covers two existing programs and a third program prospectively.

Forms are independent of administrative policy as far as possible, which allows for flexibility of operations. Policy statements govern-

ing the use of the forms belong in the written specifications, which can be revised much more easily than data forms. The situation to be covered by a form is approached analytically as a set of relevant components that may vary independently.

The forms emphasize precoded parameters for quick recording, processing, and retrieval of data. Forms also include open-ended questions to gather particulars. An area of information often is opened by a series of parameter questions. Then the particulars are covered, with the parameters serving as a basis for probing.

We favor a few versatile forms rather than many specialized forms. When we have found various situations that could be regarded as subtypes of one general class, we have designed one instrument to cover the entire class. Our status form, for example, covers all of the situations in which we may alter our definition of the relation of our agency to a case. The forms are versatile also in that they cover three different units of observation, each with an assigned identification number for retrieval. The units are patients, community agencies, and staff members.

We resist the allure of efficiency or speed that comes at the expense of other values. Posting in the administrator's log could be done by computer rather than by hand, but that would make it harder to revise the log and the forms that feed into it. Redundancy is deliberately used in various ways, so that, for example, the administrator's files partially duplicate the con-

tents of the central case files for his convenience.

The information system is intended to be an adjustable servomechanism that helps the facility to be a system with feedback in real time. Real-time information on what is happening must come soon enough to be evaluated and applied to influence what happens next. The appropriate tempo may be measurable in months rather than milliseconds. Our servomechanism is weighted by the need for human judgment to prevent overreactions in a jumpy or nervous way. The computer is used as a workhorse rather than for automatic or instantaneous response.

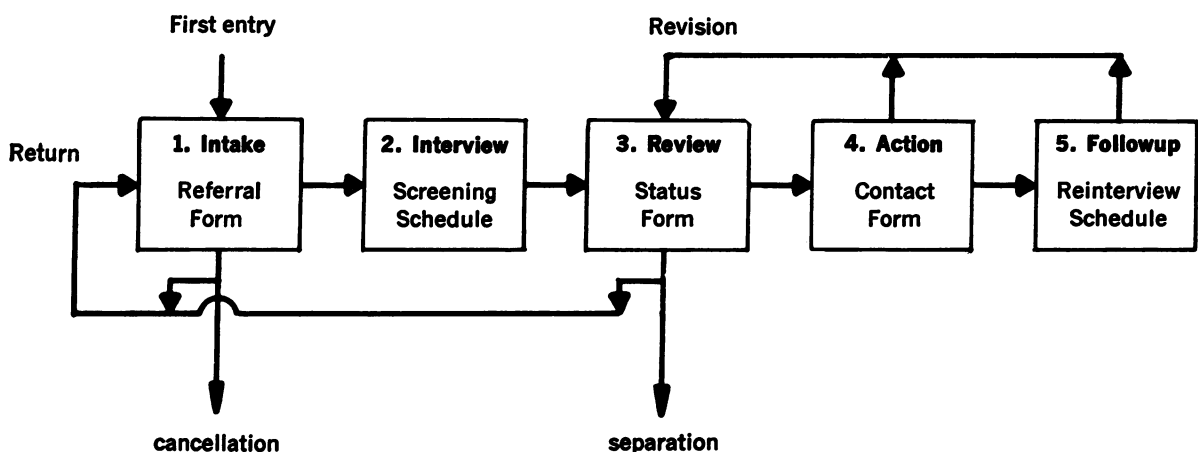
Figure 2 is a flow diagram of the intervention process showing the five junctures (boxes) at which data is collected. The basic sequence of events moves from left to right.

1. An intake negotiation with a referral source, usually an agency representative, sometimes the prospective patient or a "collateral" acting for him.
2. A face-to-face interview with the patient in our offices or elsewhere.
3. A meeting of a case-review team that hears the interviewer's formal summary of what we then know about the case and decides the status of the case, which normally includes formal plans that declare our intentions and assign responsibilities.
4. A period of managing the case in the light of the formal plan by a primary case manager and others.
5. A reinterview with the patient that parallels the content of the initial interview to cover intervening events and assess current levels of functioning.

Intervals between events in processing a case are carefully monitored to prevent undue lag.

The main contingencies in a patient's relation

Figure 2. Five data collection points in the flow of the intervention process



to us also appear in figure 2. The intake negotiation may end in cancellation, rather than an interview, for a variety of reasons. Many cancelled cases later return for another referral round. A review of the case is always done after a followup interview. Revision of the formal plan also is done irregularly, as needed, by a supervisor in consultation with the primary manager. A review may be followed by our further work in a case or by our separation from the case, if we have no further goals in the case.

Finally, figure 2 gives the name of the data form that generally is used at each juncture, although that particular form may not be used there invariably or exclusively. For example, the interview may be omitted for a returning patient if the administrator considers it unnecessary, and the referral process may require reporting on the contact form as well as on the referral form. Flexibility in using forms is needed to capture information in spite of the vagaries of events and to permit workers to do what seems sensible to them.

Our manual of technical specifications on these forms, which makes dense reading, is used mainly for reference to settle questions that may arise. Training to use the two interview schedules can be done in one 3-hour session, and each of the other forms can be explained in an hour or so.

Characteristics of Data Forms

The referral form is a single-page questionnaire administered by our intake worker to a referral source to document the intake negotiation on each case. If the source is an agency representative, we try to use the occasion to exchange current program information.

We ask for 10 items of background information about the prospective patient—such as sex, age, and education—in order to be able to describe the patients involved in cancellations. We ask a series of questions about who and what is involved in the source's concept of the problem and what might be done about it by whom.

Whenever possible, a referral is completed by making arrangements for us to interview the patient. If the problem is entirely outside the scope of our two outpatient programs, we may try to assist by further referral or with information on other resources.

The screening interview schedule is 28 pages long. The schedule usually takes an hour and a half to administer, but may take much longer. Its purpose is to describe the patient and to assess his level of functioning globally and in each of nine areas of adaptation to his environment: health, agency use, offenses, substance use, skills and employment, residence, family, associates, and leisure.

One unified schedule is used for both alcoholic and drug-addicted patients, with some branching of questions by program in the substance use area. The questions emphasize what is happening now in each area against the background of the patient's entire career in that area. A key feature of the interview is the patient's self-rating in each area as excellent, good, fair, poor, or very poor.

The intention is comprehensive coverage of an individual's life situation and life style. There is no presumption that the substance use area is the one that holds the key to what is wrong or to what may be done to set things right.

The status of the case is reported on a one-page form. This form is a checklist of items that defines our agency's current relation to every case in our files. If we currently have no goals in a case, the status bookkeeping is simple. We note that as of a certain date a referral was initiated but not yet completed, or a referral was cancelled for a specified reason, or we stopped maintaining any goals in (separated from) a case for a specified reason. If we currently have goals in a case, then the status form covers various aspects of a current case plan. The form covers investigative steps to be taken, goals to be pursued, and means to be employed. These intentions are marked by sign codes that tell when they are declared and then, in later reports, when they are judged to be either attained or continued or bypassed. Unplanned attainments are marked as extemporized. The form also specifies roles and responsibilities in the case among our staff members and other agencies. Half of the form is a blank space for writing in particulars to supplement the coded entries.

The first case plan following a referral is made by a case-review team on the basis of a formal summary presented by the screening interviewer. The team leader is a psychiatrist or

other senior professional member of the staff. Normally at least two other disciplines are represented at the review; and, at times, for training purposes, a very large group participates. Responsibility for the report rests with the team leader.

In addition to a plan, the team makes a set of ratings parallel to the patient's area self-ratings in the interview schedule. Bearing in mind the items that were read to the patient but ignorant of his responses and using the same five answer categories from excellent to very poor, the team makes a global rating and nine area ratings. Later, an editor reviews the record and makes an independent set of ratings for comparison.

The nine areas that are rated are used also in one aspect of goal setting, as target areas. We note the main areas in which we plan to intervene for the patient by working with him or his environment or both. Another aspect of goal setting for the patient is called the "goal apogee." The apogee variable covers a rank ordering of possible outcomes of intervention. The categories are communication, palliation, disability limitation, rehabilitation (restoring lost capacity to function), protection (of present capacity), and promotion (to a higher capacity than ever before). One entry is made for the intended apogee and another for what has been achieved at the time. The third aspect of goal setting, concurrent goals, refers to objectives that are independent of the well-being of the patient. One type is a collateral goal, in which we are concerned with the well-being of children or other persons associated with our patient who may be suffering because of his disabilities.

Our bookkeeping may show us joined to a case even after the patient has died, if we have a concurrent goal. It also may show activity on cases that we carry as separated, because we respond to the wishes of other parties to a case and their inclusion of us in their goals.

Staff members who are assigned responsibility for managing a case receive a copy of the status form. They are not confined by the case plan. A new status report revising the plan may be made at any time in consultation with a supervisor. However, each new report must show continuity with the earlier one in that referral round by

accounting for the disposition of previous intentions.

The emphasis on planning is, of course, a strategy for learning. It enables us eventually to study what kinds of dispositions of what kinds of intentions are associated with good or bad outcome. It also encourages a worker as he goes along to weigh the meaning of what he is doing, and it allows him to claim recognition of achievements.

The contact form is a one-page report on information learned and actions taken in case management or in any other matter that is material to the agency. At the top of the form are precoded items telling who contacted whom by what medium and categorizing the contents of the report. Most of the page is blank space for reporting the particulars of what happened. At the bottom is an address feature that can be used to route the report to someone's attention on its way to the case and agency files.

There is a variant of the contact form that allows easier recording when multiple cases or agencies or both are involved in a contact. Both forms report the duration of a contact, the number of staff members involved, and the number of outside representatives with an index of their positions in their respective agencies.

The reinterview schedule is a 14-page form that usually takes 45 minutes to administer. It is incorporated in the screening interviewer's summary form in such a way that, section by section, the new interviewer can use his predecessor's summary as a basis for probing. The reinterview includes a repetition of the patient's area self-ratings, and then the same items are put to assess whether the patient rates himself as better, same, or worse on each item since the preceding interview. The reinterview is formally summarized and presented to a case-review team for a status report. At present, we seek a reinterview after 3 months of care.

Analyses and Applications

At the start of 1967 we began our use of what was, in our judgment, a mature first-generation system for program accountability, and we judge that we have had a second-generation system since the start of 1969. We consider a first-generation system to be mature when its users stop finding glaring insufficiencies and start

finding apparent opportunities as reasons for design changes. We consider a second-generation system to have emerged when design changes bring new features that can no longer be charted by the coordinates of the original system. We judge that the use of our system has greatly helped us toward all three of our major types of goals—in action, in research, and in training.

Toward our action goals in outpatient care and in community development, the system provides many useful administrative tools. A set of standard printouts has been designed consisting of several censuses, lists, and performance tallies. From these printouts we can look up latest status information on any case by patient's name or by case number. We can examine distributions of any variable on any data form in any or all of our programs for a variety of reporting periods. We produce, for each case manager, a compact tally of the nature and extent of his case actions for each of his cases for the past month and a similar tally organized by the agencies he has dealt with. In short, we have many kinds of current and past information that is processed in many different ways and is continually available.

Our routine printouts are an analyst's choice from a set of virtually limitless possibilities. The printouts are meant to answer most of the questions that may come up from day to day. Many other questions can be answered by special computer runs. As examples, we can locate and describe special subpopulations of patients or describe all our contacts with any agency over any time period.

The research uses of the system, broadly stated, are to study systems of adaptation, systems of intervention, and the relations between the two. Data on adaptation come from the two interview schedules. Data on intervention come from the remaining three forms—the referral, status, and contact forms. Comparing status form and interview variables, we explore the effects of adaptation information on our plans for intervention. Adding successive status forms and contact forms, we explore relations between what we plan and what we carry out, and we relate these variables to outcome measures.

A major goal of our analyses, which so far

has been very general, is to satisfy ourselves on whether the categories by which we express our approach to action are a source of meaningful findings or just so much mumbo jumbo superimposed on what is really happening. One analysis that has reassured us, the only one thus far submitted for publication, compares migrants to nonmigrants among our alcoholic patients (10). Whether that analysis, or others we have been working on, will reassure others remains to be seen.

For training purposes, perhaps the chief value of our system of instrumentation is that it codifies our approach to action. Training of new staff members, of old staff members, of students in field placement or formal courses, and even of those who visit for a few hours can be done around the instruments and their specifications.

Another advantage of this system, for training as well as action, is that it produces good case records. The price that we pay for our research data is for the most part simply the price of having usable case records. The need to edit forms for data processing before they go to the case records imposes quality controls.

Our accountability system has helped our intervention system do systems negotiation at every organizational level: in case management, in case conferences with other agencies, in testifying before legislative committees, and in mass media exposure. However, systems negotiation begins at home—in the problem of installing and maintaining a system for accountability in a particular setting.

Much more is needed to solve that problem than merely finding and following a recipe. To operate such a system requires people who not only can employ instruments but also can revise and invent them. Of course they can save a lot of development time by studying existing models. When possible, that is best done by practical participation, by placements of personnel in a setting that operates an accountability system, and also placements from such a setting.

Our experiences with people in field placement with us—psychiatrists, psychologists, nurses, and social workers—seem to have been mutually beneficial. Placements of our staff

members in other organizations in our community are also in progress. This manner of lateral penetration between organizations seems an effective way to disseminate skills in accountability.

Accountability requires, beyond technical skills, a quality of human relations on the job. Accountability systems bring what most workers naturally dislike—much paperwork, probable criticism, and administrative controls. It must be established that accountability is a need of the organization and not a hobby of its researchers or a penchant of its administrators. In our setting, the need is so well accepted that new instrumentation has often come at the insistence of action staff in spite of reluctance of the researchers.

Morale on a job requires that co-workers share an understanding of mission and method and are able to communicate well. Accountability requires the same conditions, and it can be used to enhance them.

Summary

We have been developing an approach to program accountability in community mental health practice in the course of operating two outpatient programs in drug and alcohol problems. Our concept of accountability involves four broad steps: organization, instrumentation, analyses, and systems negotiation.

Our organizational model specifies four main missions in a community practice: care delivery, community organization, monitoring of intervention processes, and evaluations of outcome. To achieve these missions, an intervention system works in parallel with a community system on the one hand and an information system on the other.

The heart of our instrumentation is a set of five data forms that are employed at the points of intake, interview, review, action, and followup. Analyses involve a variety of routine printouts and special studies. Application of findings is viewed as a process of systems nego-

tiation, of dealing with multiplex systemic supports of the status quo.

The use of our system has helped us to administer and develop our programs, contributing toward our goals in action, research, and training. To install such a system in a facility requires people with technical skills and the same qualities in human relations on the job that make for high morale.

REFERENCES

- (1) Computers in psychiatry. *Amer J Psychiat* 125: 7, January 1969 Supp.
- (2) Rosenberg, M., Glueck, B. C., and Bennett, W. L.: Automation of behavioral observations on hospitalized psychiatric patients. *Amer J Psychiat* 123: 926-929, February 1967.
- (3) Rosenberg, M., and Glueck, B. C.: Further developments in automation of behavioral observations on hospitalized psychiatric patients. *Compr Psychiat* 8: 468-475, December 1967.
- (4) Pollack, E. S.: Monitoring a comprehensive mental health program: Methodology and data requirements. Paper presented at the University of Wisconsin postgraduate program in medical education, Madison, June 2, 1966.
- (5) Tupin, J. P., et al.: Computer monitoring and analysis of a psychiatric treatment program. *Ment Hyg* 51: 414-418, July 1957.
- (6) Person, P. H.: A statistical information system for community mental health centers. National Institute of Mental Health Statistics Series C, No. 1. PHS Publication No. 1863. U.S. Government Printing Office, Washington, D.C., 1969.
- (7) Brotman, R., and Freedman, A.: A community mental health approach to drug addiction. JD Publication No. 9005. U.S. Government Printing Office, Washington, D.C., 1968.
- (8) Silverman, I.: Sociology and psychiatry. In *Comprehensive textbook of psychiatry*, edited by A. M. Freedman and H. I. Kaplan. Williams and Wilkins Co., Baltimore, Md., 1967, pp. 201-212.
- (9) Costikyan, E.: Cutting city government down to size. *New York Magazine* 2: 31-35, Oct. 20, 1969.
- (10) Silverman, I., Lief, V. F., and Shah, R. K.: Migration and alcohol use: A careers analysis. *Int J Addictions*, September 1970. In press.

Tearsheet Requests

Dr. Irving Silverman, New York Medical College, 5 East 102d St., New York, N.Y. 10029