

# Community treatment of the mentally ill: The Mendota experiment

People who have a chronic mental illness are very likely to be poor. It is not yet clear whether illness, or poverty, is at the root, but the consequences for social policy are the same: such people are likely to be government charges for the bulk of their lives (see Table 1), and current efforts to legislate national health policies need to take into account both their needs and the costs and benefits of different modes of treatment. What alternatives exist, and what do we know about them?

Until the early 1950s, patients suffering from chronically disabling psychiatric illnesses, such as schizophrenia or other psychoses and personality disorders, were treated primarily through hospitalization in a mental institution. But all too often, treatment that was intended to be short-lived and therapeutic became instead a lifetime of institutional care.

In recent years there have been continuous efforts to reduce the length of time that patients remain in mental hospitals. In-patient treatment has been shortened; where possible, day-hospital treatment has been substituted. Transitional centers—group-living homes, halfway houses, sheltered workshops— have been established, along the lines of those set up for retarded or disabled people or for juvenile offenders. For many such, we now recognize that long-term institutional care has debilitating effects.

Hand in hand with the changing social attitudes toward “warehousing” the mentally ill has come the development of a sophisticated battery of drugs geared to specific mental disorders. These have opened up possibilities for treatment that are only beginning to be explored.

The most obvious consequence of changing treatment for the mentally ill is the sharp reduction both in the number of persons entering mental hospitals and in the length of their stay. The number of resident patients plummeted from a peak of 558,922 in 1955 to 215,573 in 1974; the decline continues. For newly admitted psychotics, the length of stay in VA hospitals dropped from 473 days to 178 days between 1970 and 1974. But these statistics tell only half the story. Figure 1 shows it all: as the number of patients has dropped, so the number of admissions and readmissions has risen, to create what has been called a “revolving door syndrome” of repeated admissions and discharges. Many experienced mental health professionals have wondered whether current hospitalization therapies might not actually do more patients harm than good.

What alternatives to hospitalization exist?

The most radical form currently being explored is community treatment that attempts to eliminate hospital care altogether—to treat the patient at home. Three experimental studies have been undertaken: in one, patients received weekly visits from public health nurses to provide medication and counseling; the other two used versions of family crisis therapy aimed at teaching the patient and the family ways to handle emergencies without resorting to the hospital. In all three, over 75 percent of the patients were kept continuously out of the hospital as long as home treatment lasted.<sup>1</sup>

But problems with home treatment are immediately apparent. Many mentally disturbed people have no home to go to—the family is either absent, or alienated by the patient’s irrational behavior. If there is a home, family members may feed the patient’s mental disorder by engaging in pathological and often highly conflict-laden interactions. Even if patients are not living with relatives, their presence in the community may disrupt family activities or cause anxiety.

The potential social costs of treating mental patients in the community are largely unknown, but much feared. Their behavior can be aggressive or disruptive—at best it

**Table 1**  
**Number of Subjects on Income Maintenance Programs**

	Baseline*		12 months		28 months	
	E	C	E	C	E	C
	(n=63)	(n=64)	(n=57)	(n=59)	(n=53)	(n=54)
Supplemental Security Income (SSI)	10	9	14	19	19	20
Other welfare programs**	14	17	1	10	3	14
Total	24	26	15	29	22	34
Percentage of total group	38	41	26	49	42	63

\* Four months prior to experiment.

\*\* Veterans' Administration programs accounted for an additional 2-4% of cases.

is often strange, provoking reactions in others that range from embarrassment to real fear. Patients' own fears or symptoms may drive them to frequent use of hospital clinics or emergency rooms. Will the presence of a good number of such people in the community increase the burden on law enforcement or medical services? Will patients themselves be at greater risk of suicide, self-injury, or simple neglect of their own health if they are in the community instead of in a "protected" hospital situation?

Finally, financial costs are an issue of particular significance not only because of the massive inflation of medical costs in general and hospital costs in particular, but because of the burdens on families ill able to sustain them. Is community treatment of the mentally ill cheaper than hospital care? What trade-offs, for society and for the patient, are involved?

A four-year experiment in the treatment of patients suffering from chronic mental illness in Madison, Wisconsin, has given some tentative answers to such questions.

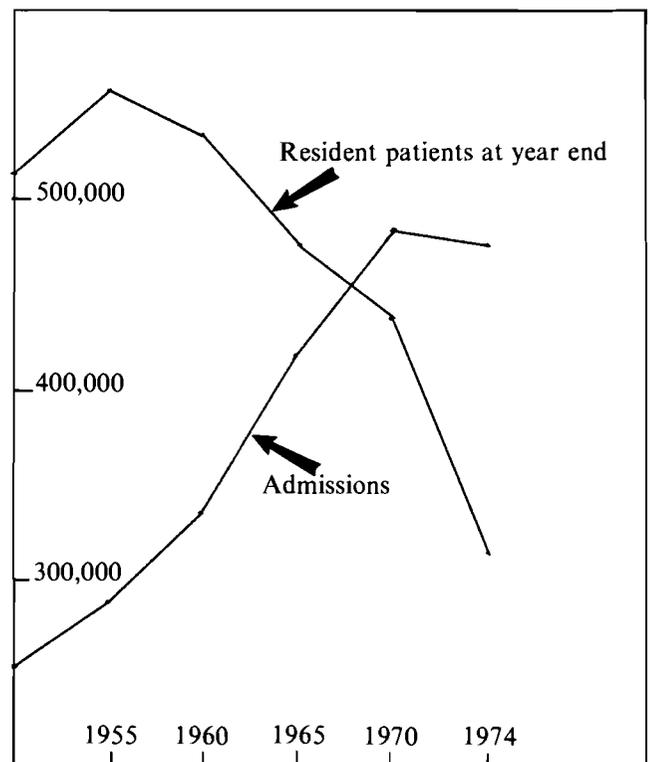
### The Mendota experiment: training in community living

Beginning in October 1972, 130 individuals seeking admission to Mendota Mental Health Institute were randomly assigned, in equal numbers, either to an acute treatment ward at Mendota (the control group) or to an experimental community treatment program. Patients assigned to the control group received in-hospital treatment generally lasting less than one month, plus traditional aftercare. Those in the experimental group did not enter the hospital at all, except in very rare cases when massive drug therapy was needed or the life of the patient or of someone else appeared to be at risk. Instead, over a period of fourteen months, they received intensive treatment in the community along the lines described below. After that time they had no contact with staff members of the experimental group. Patients entered and left each of the groups at the rate of two to three per month.

The Mendota experiment extended in important ways the quest for an effective alternative to hospitalization for those suffering from chronically disabling mental illness. First, it dealt with an unselected sample of 18 to 62 year old patients; previous studies had been selective, for instance rejecting patients judged a priori "too ill" to be treated in a community or day hospital setting. Only those with organic brain syndromes or alcoholism were excluded here.

Second, the Mendota study included the first benefit-cost analysis of a controlled experiment that compared, in terms of an unusually wide variety of tangible and intangible benefits and costs, a traditional, hospital-based treatment and a nontraditional community-based one. And finally, the treatment placed major emphasis on improving psychosocial functioning by assertively working with patients who were living independently rather than with family or in sheltered settings.

The directors of the experiment<sup>2</sup> contended that current models of community treatment did not effectively address certain crucial aspects of an individual's daily life, and that many patients in such programs had only a very tenuous hold on life in the community; they were more or less always on the brink of rehospitalization. Training in Community Living was designed actively to help patients meet their own material requirements for food, shelter, clothing, medical care, and recreation, so that they could do the sorts of things that most of us take for granted—cook proper meals and do the laundry; shop and budget money; take the bus and participate in community activities; be responsible for their own medication. Patients were given sustained help in finding a job or sheltered workshop placement. Staff members were available seven



**Figure 1. The "Revolving Door" Syndrome.**

Source: Morton Kramer, "Psychiatric Services and the Changing Institutional Scene, 1950-1985," National Institutes of Mental Health, Series B, no. 12, *Analytical and Special Study Reports*, 1977, p. 78.

days a week, 24 hours a day, to give support to patients, their families, and others with whom the patients had to deal—supervisors, friends, the police. Most of the “treatment” took place in patients’ homes, neighborhoods, and places of work.

Chronically disabled patients are frequently passive, very anxious in their dealings with others, and prone to develop severe psychiatric symptoms. They often fail to keep appointments, and tend to drop out of treatment when symptoms become acute. Staff in the Mendota program were trained to be very assertive in such circumstances: for instance, if a patient failed to turn up at work, a staff member would immediately go to his or her home to help with any problem that was interfering with daily functioning. Medical needs were very carefully monitored; medication was routinely used for schizophrenic and manic depressive patients. Over the last few months of the experiment systematic efforts were made to wean patients gradually from the experimental program and to integrate them into existing community programs.

Enlisting support of others in the community was considered especially crucial.

Our major effort was to influence them to respond to patients in a manner that would promote responsible behavior . . . For example, if a patient’s behavior was disruptive to other tenants in his apartment building, we would encourage the landlord to talk to the patient directly about his behavior and tell him he would be evicted if it continued. This is contrary to the community’s usual response, which is to see to it that the patient’s disruptive behavior leads to rehospitalization.

The experimental program confronted patients with the real consequences of their actions: the landlord’s anger, losing a job, time in jail. By contrast, under traditional treatment mentally ill people who do not behave in a socially acceptable manner on the job, in their rooming houses, in the community, are not punished, but instead are “rewarded” by being placed in a protected and subsidized hospital environment, which they often prefer.

The evaluation of the experiment sought to answer three questions.

1. How does an intensive, fourteen-month community treatment affect the functioning of patients, compared to hospital treatment plus traditional aftercare? (It should be pointed out that Mendota is no “warehousing” facility. It has a high patient-staff ratio, many in-hospital and out-patient services, and access to a wide range of aftercare services for discharged patients. The progressive hospitalization treatment of the control group aimed to prepare

them for return to the community within a relatively short time. This program thus constituted a stringent control on the experiment.)

2. What are the respective benefits and costs of the two programs? The designers of this analysis intended it to be useful, not only for this particular study, but as a model for assessing public policy in areas where benefits and costs cannot and should not be reduced to strictly monetary terms.

3. What happens to patients’ ability to function when, after fourteen months of special treatment, they are transferred to traditional community programs?

## Findings from the Mendota experiment

Who were the patients treated in the context of this experiment?

Almost three-quarters of the patients in both groups were single, separated, or divorced, and 55 percent were male. Their average age was fairly young, about 31 years, but most already had a history of mental illness: the average patient had been hospitalized five times before he came into Mendota on this occasion, and had spent, in all, over a year in mental hospitals. Indeed, 20 percent of the patients came to Mendota directly from another institution, and another 14 percent came from sheltered living situations. Only 17 percent had never previously been in a psychiatric hospital. About 50 percent of the patients were schizophrenic.

Intense efforts were made to exclude bias and to obtain as complete records as possible in collecting data. Researchers who administered questionnaires to patients were not part of the clinical staff, and, if necessary, they traveled out of state to interview patients who had moved. Family members of a subsample of patients were interviewed at the onset of the experiment, and four months later; information that patients gave about their contacts with public and private agencies was verified with the agencies themselves. The economic research team met with staff members at these agencies to ascertain the costs of the services that they had provided to patients.

### The response of the patients

Patients in the experimental group knew they were being treated in an unusual manner, and many were unhappy at being kept out of the hospital. Nonetheless, on many important measures of psychological and social well-being, they scored better than did patients in the control group.

*Hospitalization.* Throughout the first year, experimental patients spent very little time in psychiatric institutions, and significantly more time living independently in the community than did controls. During the year, 34 of the 58 control group patients who had been hospitalized at the outset (not all of them were) had to be readmitted at least once; only 6 percent of the experimental patients had to be admitted.

*Work.* The chronically mentally ill often have difficulty finding and retaining jobs. Thus for people with severe emotional problems, work may have very positive connotations, and leisure negative ones—they are not in the company of other people, not doing work that receives so-

cial approval. Over the year during which they were studied, people in the experimental group worked, on average, for 225 days in competitive or sheltered employment, while those in the control group spent only 89 days at work (bear in mind that most people in this group spent less than three weeks in the hospital at first admission).

*Living and leisure.* Patients in the experimental group had more contact with trusted friends, and attended more social gatherings than did those in the control group. Other measures of their general style of living—meals, living situation, and so forth—showed no significant differences between the two groups. Patients in the experi-

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## Forthcoming Institute Books      Spring 1980

### **Microeconomic Simulation Models for Public Policy Analysis**

Edited by Robert H. Haveman and Kevin Hollenbeck

During the last decade, an increasing number of federal and state agencies have employed policy simulation experiments on microdata files in analyzing current and proposed legislation. To date, there has been no systematic review of these modeling efforts and their actual and potential uses in policy making. To deal with this problem a conference was held in March 1978 jointly sponsored by the Institute for Research on Poverty, Mathematica Policy Research, and the National Science Foundation.

The 13 papers and discussants' comments emanating from that conference were designed to discuss the operation of a particular model and apply it to a particular federal policy or proposed policy. Four general subject areas were covered: microdata models for first-round distributional analysis, models incorporating behavioral responses to policies being simulated, macroeconomic models, models with regional or sectoral impact.

The collected papers lay the groundwork for analyzing the not inconsequential problems involved with this form of analysis. By intensive consideration of these difficulties the volume offers the starting point for an objective appraisal of the usefulness of these kinds of simulations.

Peter K. Eisinger

### **The Politics of Displacement: Racial and Ethnic Transition in Three American Cities**

Since 1967 more than 170 towns and cities in the United States have elected black men and women as mayors. Every initial black victory in a major city (with the exception of Washington, D.C.) has been over a white opponent. How whites have dealt with this transformation of their political world is the principal concern of Eisinger's study. In particular, the book is an investigation of the adjustments of whites to black rule in Detroit and Atlanta. The author puts these events in historical perspective by including a case study of Yankee adjustment to Irish rule in turn-of-the-century Boston.

In a narrow sense this is a study that focuses on losers—members of groups displaced from political power by other groups they once traditionally dominated—and on their psychological and strategic adaptations. At a more general level the inquiry offers a perspective on the role of race and ethnicity in American cities. Eisinger's conclusions are surprisingly optimistic as he depicts the adaptive qualities of American politics.

These books will be available from the publisher, Academic Press, 111 Fifth Avenue, New York, New York 10003.

mental group, however, reported themselves as markedly more satisfied with their lives, and showed a greater level of self-esteem, than did the control group. They also showed enhanced ability to plan their lives and to make decisions about the future—two areas where mentally ill people are often deficient.

*Dealing with symptoms.* An equal number of patients in both groups were prescribed medication; those in the experimental group seem to have been somewhat more compliant in taking it. Perhaps as a consequence, perhaps also because of the support and intensive attention they received from staff of the experimental program, their behavior was markedly less symptomatic.

#### Social and family costs of the program

All too often, benefit-cost analyses of public programs seem to consider only those aspects that can be reduced to dollars spent, omitting effects that cannot easily be quantified or that involve strong value judgments. Or they have so restricted a perspective that they mistake a shift in the form of a particular cost for a change in its level. It is clearly cheaper, for instance, not to put someone in a hospital than to put him there, if one considers only hospital costs, but what if leaving him in the community means continuous confrontations with the police? Then increased law enforcement costs may well offset the savings on medical expenses.

The economic researchers involved in the Mendota experiment made very careful estimates of costs and benefits, measuring social and family costs, reporting upon quantifiable and nonquantifiable elements. In money terms, they estimated, the experimental program cost an additional \$800 per patient for the year over which it was measured; in return, however, patients in the program earned some \$1200 more than patients in the control group—this in addition to the greater happiness and improved functioning that have already been described.

What about costs to the families of patients, and to the community at large? Many of these are inherently difficult to measure, and conclusions must be guarded, given the small size of the sample of families involved. But it seems that the burden placed on the families of the mentally ill was certainly no greater—if perhaps no less—when the patient was in the experimental program. Families of patients in the experimental group indeed reported fewer days of work lost because of crises involving patients than did families of those in the control group.

The picture for law enforcement costs undercuts many expressed apprehensions about community treatment. Whether the measure is number of arrests for misde-

meanors or serious crimes, or merely contacts with courts or probation officers, experimental patients did no worse than did patients in the control group.

#### Economic costs: different treatment for different disorders

When researchers considered separately different subgroups of the mentally ill—schizophrenics, other psychotics, and people with personality disorders—they found striking contrasts in both the costs and the benefits within and across programs. For instance, direct treatment costs for control patients with personality disorders averaged \$2000; they were more than twice as large for schizophrenics. Law enforcement costs for other (non-schizophrenic) psychotics in the experimental program were around \$75; for those in the control program they were over \$300. In contrast, these costs were much greater for experimental patients with personality disorders than they were for controls. Such findings offer a useful guide to the appropriate treatment for different kinds of mental disorders. Community-type programs seem to be quite cost-effective in treating schizophrenics and other psychotics.

Are the patients happier? Do they function better? Although evidence from the Mendota experiment is not definitive, it suggests that the answer to both questions is yes. Since the nature of mental illness can normally be diagnosed when the patient first comes for treatment, it would clearly be possible to select the most effective meth-

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### Selected papers

Stanley Masters, Irwin Garfinkel, and John Bishop, "Benefit-Cost Analysis in Program Evaluation." Institute for Research on Poverty Reprint (forthcoming).

Leonard Stein and Mary Ann Test, "An Alternative to Mental Hospital Treatment: I. Conceptual Model, Treatment Program, and Clinical Evaluation, III. Social Costs." *Archives of General Psychiatry* (in press). Forthcoming Institute for Research on Poverty Reprint.

Burton Weisbrod, "A Guide to Benefit-Cost Analysis as Seen Through a Controlled Experiment in Treating the Mentally Ill." Institute for Research on Poverty Discussion Paper no. 555-79.

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ods of therapy very early in treatment. The prospects are intriguing. All patients in this experiment had histories of previous hospitalization. Research currently underway with young mentally ill adults who are experiencing a first major psychotic episode is exploring the benefits of massive early intervention.

### What did the experiment demonstrate?

Virtually without use of the hospital, it proved possible to treat successfully a random sample of chronically mentally ill people seeking admission to an institution. Patients in this experimental program lived in the community for a sustained period without suffering the disruption in their lives and the reinforcement of symptomatic behavior that frequently accompanies hospitalization. At the same time, a similar group of patients who underwent the more traditional hospitalization were often readmitted in the course of the succeeding year, and by several objective measures functioned worse than did people in the experimental group.

When community treatment ceased, however, most of the differences between the two groups began to disappear. Experimental patients' symptoms very rapidly returned; more slowly, the incidence of hospitalization began to rise. Job performance began to slip, and the greater satisfaction with life that these patients had expressed while they were in the program disappeared after they left it. Other studies have similarly found that when intensive treatment ceases, patients regress.

### Policies for the mentally ill

Some general conclusions about the treatment of the mentally ill are suggested by the findings of the Mendota experiment.

In the first place, it suggests that traditional community services for these patients are insufficient and inappropriate. The hospital is forced to become the primary locus of treatment for patients instead of being reserved for the more specialized role it can best perform. Perhaps hospitals for the mentally ill should be considered no differently than are hospitals for the population at large—a place to go in emergencies, or when the status quo is in some serious way disrupted.

Second, the long-term results suggest that for a large number of chronically disabled psychiatric patients, treatment must be continuous, rather than limited in time. Such treatment should be organized so as to provide

a flexible delivery of care that gives the patient only what he needs, when and where he needs it. Common sense would seem to indicate, moreover, that over the longer term, costs of a community program might well diminish as patients became more selective in their use of services, and the program became well established. Heavy start-up costs are almost invariably a feature of such programs.

Such a model of treatment faces formidable barriers to widespread adoption—not least, financing. Although it is economically beneficial, in terms of total costs and benefits, the kinds of services it provides are largely not reimbursable by insurance. It is relatively easy to determine what one must pay for a day in the hospital, not so easy to determine the bill for a varied pattern of services that includes medical care, social support, recreational and activity programs. Since the availability of financing has a profound influence on the nature of services offered, community treatment programs will continue to take second place to hospitalization unless current patterns of medical insurance change.

Implementing such a program on any large scale would require a pool of highly trained personnel and a strong, coordinated, administrative structure of a kind that does not currently exist within the traditional organizational patterns of the medical sector. Patients' needs would have to be carefully and continually monitored; staff would have to be available to intervene assertively when needed, and to work closely with community and family as well as with the patient.

Such financing and organizational difficulties would seem to be largely technical ones. They are thus inherently subject to resolution, given the will to do so. The Mendota experiment makes it clear that society, and the mentally ill, have much to gain from making the effort. Until we are able to prevent or cure chronic psychiatric disorders, treatment strategies should focus upon maintaining patients in the community from the very beginning, rather than on hospitalizing them to “prepare” them for a return to active community living that all too often never takes place. ■

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<sup>1</sup>D.G. Langley and D.M. Kaplan, *The Treatment of Families in Crisis* (New York: Grune and Stratton, 1968); B. Passamanick and others, *Schizophrenics in the Community* (New York: Appleton-Century-Crofts, 1967); J.D. Rittenhouse, “Endurance of Effect: Family Unit Treatment Compared to Identified Patient Treatment,” *Proc. Am. Psychol. Assoc.* 1970, 2, 535-536.

<sup>2</sup>Leonard Stein, M.D., at that time Director of Research at MMHI and now Professor of Psychiatry, University of Wisconsin-Madison, and Mary Ann Test, Ph.D., then Associate Director of Research at MMHI and now Associate Professor of Social Work and member of the Institute for Research on Poverty, University of Wisconsin-Madison. The benefit-cost analysis was conducted under the direction of Burton Weisbrod, Professor of Economics and member of the Institute for Research on Poverty, University of Wisconsin-Madison.