From 1959 through 1962, San Mateo County, Calif., experienced a drop in admission of patients to the state mental hospital while other Bay Area counties had a rise. Study failed to reveal any factors to account for this shift, except the development of local public psychiatric services. This seems to be the significant element.

AN ANALYSIS OF THE SERVICE RELATIONSHIPS BETWEEN STATE MENTAL HOSPITALS AND ONE LOCAL MENTAL HEALTH PROGRAM

Robert S. McInnes, M.P.H.; Jeanne T. Palmer, B.A.; and Joseph J. Downing, M.D., F.A.P.H.A.

When a local mental health program is developed, it is hoped that one result will be that fewer patients will have to be sent to a state mental hospital. Changes in state hospital admission rates following the establishment of the San Mateo County Mental Health Services are described in this paper.

Today in the United States we are in the process of a transition in mental health services. The large state mental hospital is the only resource for the care of the mentally ill in some states and still retains a major position in most states. However, development of a wide variety of community services, including outpatient psychiatric care and short-term acute psychiatric treatment in general hospitals is well under way in a number of states, including California. Because of the social and therapeutic problems presented by the large state mental hospital, the development of more effective community-based mental illness care seems imperative. During this period of transition it is especially important to document the effects of the development of new services for the care of the mentally ill.

In this paper we are dealing with an uncontrolled situation where the new program is not the only influence affecting the community and its mentally ill population. We will look at changes in hospital admission patterns and attempt to evaluate them, but we must be extremely cautious in deriving cause-and-effect relations.

This paper is prompted by a marked reduction in the rate of admission to state hospitals from San Mateo County over the past three years, from 144 per 100,000 in 1958-1959 to 104 per 100,000 in 1961-1962. In the same period, the rate of admission in other counties of the San Francisco-Oakland Area rose from 212 per 100,000 in 1958-1959 to 262 per 100,000 in 1961-1962.

We shall examine the relative stability of this change and describe the factors which might affect it. We suspect that many patients who would have been admitted to the state hospital are now served in their home county under the San Mateo County Community Mental Health Services. It is often difficult to say that any particular patient is saved from state hospitalization. What may be
said is that a reduction in admissions to the state hospital with a comparable increase in admissions of similar patients to a community facility in the face of otherwise stable state hospital admission rates perhaps indicates that a certain proportion of patients were probably rerouted.

The San Francisco-Oakland Standard Metropolitan Statistical Area Population

Various demographic factors are often related to psychiatric utilization. Because of this we are including demographic data on the six counties comprising the San Francisco-Oakland Standard Metropolitan Statistical Area.

The median education, median age, percentage of the population over 65, percentage of the population who are nonwhite, median income of families and unrelated individuals, and the percent rural farm are given in Table 1.

Of these counties, Marin and San Mateo are most similar in these characteristics, as well as in geography and climate, although San Mateo County is approximately three times as populous as Marin. However, both are growing at approximately the same rate, as will be noted in the change between 1950 and 1960 populations in Table 1. Other changes in this decade seem comparable. Both have sufficient base populations to yield a relatively stable rate of admissions to state hospitals. While we present admission trends from all Bay Area counties, the most relevant comparison might be made between the San Mateo and Marin state hospital admission rates.

Psychiatric Resources

Among other factors which are believed to affect state hospital utilization are changes in the incidence of mental illness. Superior Court policies regarding the commitment of mental patients,
the presence of private psychiatrists in the community, the availability of other psychiatric resources, and the prevailing community attitudes regarding mental illness. We have no direct measures of changes in the incidence of mental illness. We see no reason to believe that there might be a sizable change in incidence which might occur in only one of the six counties. For these reasons we are forced to assume a more or less constant incidence of illness and concentrate on the more measurable elements of facility utilization.

In the counties described in this study, the court serves as the final arbiter in a commitment proceeding. Preliminary screening is in the hands of a variety of individuals and agencies outside the jurisdiction of the court. No radical change in court policies regarding commitments is known to have taken place in the period under study and in any of the counties described here. The number of private psychiatrists per population varies from county to county, and comparison is somewhat unreliable because the amount of time devoted to private practice is not known.

The number of admissions for each of these counties to private psychiatric inpatient facilities is given in Table 2. These figures are estimates of the distribution of residence based on a one-month report. We have no reason to believe that there have been drastic changes in the rates of admission for any of these counties in the study period. The number of admissions to these facilities in 1961 was almost the same as 1950. Because of our growing population this fact means a declining rate of admissions to these facilities. The San Francisco-Oakland Area for many years has had relatively more psychiatric resources than most other areas in the state and thus probably has had a higher level of public acceptance of psychiatric services.

The San Mateo County Community Mental Health Services

Under the Short-Doyle Act for Community Mental Health Services, state reimbursement is available to counties and cities offering at least two of five types of services: psychiatric outpatient, inpatient or rehabilitation patient care; and mental health consultation and education. Reimbursement for patient care is limited to patients who voluntarily apply for treatment.

At the present time the San Mateo Community Mental Health Services offers all five services and has a total annual budget of just over one million dollars. In 1952 the county opened a psychiatric clinic, which was the first public adult treatment service in the county. At this time the inpatient psychiatric facilities consisted of four cells in the county hospital. In 1956 a 30-bed county hospital psychiatric ward was opened. One full-time psychiatrist staffed this ward. When the Short-Doyle Act for Community Mental Health Services was passed in 1957, the San Mateo County program was one of the original seven programs established.
services since that time which might affect the seriously mentally ill were: the addition of staff psychiatrists to the inpatient unit in July, 1959; the development of a 24-hour psychiatric emergency room screening program in July, 1960; and an intensive aftercare service added in January, 1962. Prepetition home visits by psychiatrists were begun in July, 1961. Nursing-home consultation was begun in December, 1961, and a day hospital in January, 1961. The per capita cost of this program and other Bay Area Short-Doyle programs is given in Table 3.

Hospital Admission Trends

We have little reason to believe that the provision of community outpatient psychiatric clinic services cause an immediate reduction in the number of admissions to state hospitals. However, we feel that local inpatient treatment services may have some noticeable effect. It is this aspect of these Short-Doyle programs which we shall examine.

In the more populous counties of California, patients to be committed to a state hospital are usually admitted first for observation to a county hospital psychiatric unit. During the period when these Bay Area counties were studied, Marin alone lacked such a facility. This means that there might be many admissions to a particular county hospital, but with no psychiatric treat-

tment available these admissions would have little effect upon the county's admission rate to the state hospital. What we are concerned with are the number of treated inpatients discharged from county hospitals in the counties under comparison.

Psychiatric treatment in a county hospital in these counties is largely limited to voluntary patients with reimbursement under the Short-Doyle Program. The number and rate per 100,000 of these treated patients are given in Table 4.

As can be seen, the San Mateo County Short-Doyle program has a rate of treated inpatients which is far higher than either of the other two counties offering such care.

In the San Mateo County Mental Health Services inpatient unit, only 18 per cent of the treated patients are referred to a state hospital at discharge. Because of these treatment services offered to inpatients at the county level, we would expect an eventual decrease in admissions to the state hospital. However, in an area that has had a paucity of psychiatric services, the state hospital admission rates may increase when local mental health services are first developed. This happens because one of the effects of these services is better recognition of mental illness and more case finding. There are long waiting lists in most outpatient clinics, even in San Mateo County, but this county

| Table 3—Cost per Capita, San Francisco Bay Area Short-Doyle Programs, 1961-1962 |
|---------------------------------|----------------|
| San Mateo County                | $2.07          |
| Marin County (no program)       | 0.00           |
| Alameda County (including city of Berkeley) | 0.21 |
| Contra Costa County             | 0.52           |
| San Francisco County            | 1.82           |
| Solano County                   | 0.30           |

<p>| Table 4—Treated Inpatients Discharged from Bay Area Short-Doyle Programs, 1961-1962 |
|---------------------------------|----------------|</p>
<table>
<thead>
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<th>Bay Area Counties</th>
<th>Number of Patients</th>
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<td>San Mateo</td>
<td>1,034</td>
<td>232</td>
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<td>Contra Costa</td>
<td>464</td>
<td>113</td>
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<td>San Francisco</td>
<td>326</td>
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Figure 1—Rates of Admission to California State Mental Hospitals from Six San Francisco Bay Area Counties, 1948-1962
is comparatively well advanced in the development of mental health services. We would expect that the situation in this county was beyond the point of initial stimulation of psychiatric care.

What has happened to the San Francisco Bay Area rate of admission to state hospitals since 1948 is shown in Figure 1. As will be noted, the general tendency for all the counties under study has been an increased rate of admission. San Francisco County has consistently had the highest rate of admission. The other counties are much closer together in their pattern of admission rates. Part of the higher San Francisco admission rate is due to the large number of alcoholic commitments from San Francisco County (Table 5). The higher rate for other psychiatric categories may be explained in part by San Francisco’s older population. In Table 1 we see that the median age of the population of San Francisco County is considerably higher, and specifically there is a higher percentage of the population over 65 than in any of the other counties. Since the age-specific admission rates tend to be higher in the older age groups, this differential in age distribution should help to account for a higher San Francisco admission rate.

The San Mateo County admission rate went up from 1948 and then experienced a slight decline beginning 1953 through 1956. As was mentioned earlier, in 1952 the public adult outpatient psychiatric unit was begun. It is quite likely that this program treated a small number of patients who might have been admitted to a state hospital. In 1956 the inpatient unit was opened, and as can be seen from Figure 2, it had a great flood of patients. It was not until 1959 with the addition of other psychiatrists that adequate screening and treatment services really began. Subsequent to the advent of these services there was a decrease in state hospital
Figure 2—Rates of Admission to San Mateo County Hospital Psychiatric Unit and Rates of Commitment from San Mateo County to California State Mental Hospitals, 1949-1962

Figure 3—Rates of Admission to California State Mental Hospitals for Six San Francisco Bay Area Counties and San Mateo County, 1948-1962
admissions during 1960, 1961, and 1962, as shown in Figure 1. The comparison of San Mateo County and the rest of the Bay Area is seen in Figure 3. As can be noted in Figure 3 and Figure 1, we see a substantial drop in admission rates below the trend for the Bay Area and below the trend for San Mateo County projected from previous years’ rates. If the recent San Mateo experience had been comparable to the rest of the Bay Area or to its own experience during earlier years, almost twice as many patients would have been admitted to state hospitals from this county. The changes in admission rates for the San Francisco-Oakland Area during the period 1958-1961 are shown by type of admission in Table 6. It should be noted that the San Mateo rate for each type of admission declined, whereas most of the other counties experienced rising admission rates to state hospitals.

Even though the numbers have gone down for state hospital admissions, what assurance do we have that the individuals treated in the San Mateo County Mental Health Services inpatient program are at all similar to state hospital patients? The diagnostic distribution of state hospital admissions from the Bay Area counties and the diagnostic distribution of treated inpatients from the San Mateo Short-Doyle program is given in Table 5. The distribution is not the same; however, the number of schizophrenic and other psychotic patients treated is equal to the number admitted to the state hospital.

Let us consider what happens to the schizophrenic patient in the San Mateo County program inpatient unit. Among inpatients discharged during 1960-1961 from the San Mateo Mental Health Services, almost 50 per cent of the schizophrenic patients were referred at discharge to some form of outpatient care rather than for further inpatient care, either in a state hospital or private fa-
cility. Since the development of the San Mateo County Short-Doyle inpatient unit, the greatest decrease in admission rates has been noted for schizophrenic, other psychotic, and alcoholic patients and the least for senile patients.

The duration of stay in the San Mateo Short-Doyle inpatient unit is short, with the median being approximately seven days for treated inpatients. Care in this facility is limited to 90 days. While many state hospital patients stay for a number of years, the median stay of discharged patients is 2.4 months. In the San Mateo County unit most of the treated patients received individual interview therapy, group therapy, and drug therapy. The ward is run as a therapeutic community.

Discussion and Summary

In our introduction to this paper, we cautioned against any assumption of cause and effect because of the uncontrolled nature of our "experiment." However, it is clear that for the period 1959 through 1962, San Mateo County experienced a reversal of the generally rising state hospital admission curve, with a net drop of 31 per cent, whereas other Bay Area counties rose 24 per cent. A study of the San Francisco-Oakland Area for this period failed to reveal any demographic, social, economic, or judicial factors which might account for this change. We are encouraged to believe that the development of local public psychiatric services, especially inpatient treatment services, can reduce state hospitalization by a worthwhile degree. This belief will be strengthened if the present trend continues and if other counties now developing local inpatient treatment programs experience a similar decline.

We hope that this analysis of the patient care relationships of one mental health program to the state hospital system will stimulate documentation of other such relationships so that if there is a consistent pattern it will prove useful to all those concerned with planning mental health services.

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