# **Research in Epidemiology of Mental Illness**

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As mental health programs develop throughout the country, we are often confronted by requests from laymen and professional persons alike for a variety of facts and figures. What, for example, is the extent of the problem? How many people in the United States actually are mentally ill? How many mental health clinics do we need? How many psychiatrists? How many psychiatric nurses?

All of these questions are reasonable and important. Yet to none of them can we give a firm answer, based on tried and tested facts.

It may be argued that, since the deficiencies in service, personnel, and facilities in this field are so obvious and so great, why bother collecting data to prove what is already known?

This argument is not valid. In the first place, we have the problem of allocating scarce resources and must find areas of greatest need. The very complexity and vastness of the problem make it imperative that we get the best possible data upon which to base our action programs. Second, as research in this field goes forward on a broad front, epidemiological data are needed, not only to advance fundamental knowledge but also to help us develop more effective treatment and control methods. Our great need is for facts—many facts, accurate facts—that will not only help us learn how mental illness can be brought under control and what staff and facilities are necessary to do this,

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Thus, intelligent planning for an integrated public health attack on mental illness demands adequate epidemiological information. We must have information on the extent of the problem-that is, how many are affected. There are also a great many other things we need to know. What are the characteristics of the mentally ill as a group and as opposed to the rest of the population with respect to such factors as age, sex, race, and occupation? How does mental illness develop in the individual and what factors explain its distribution in the population? What are the constitutional, physiological, psychological, and socioeconomic factors that may be related to cause and course of the illness?

Each of the above questions presents a challenging research problem. Even before we can accurately determine the number of mentally ill in our population, we must first acquire the following kinds of basic knowledge: a clear definition of the entity we are trying to count; diagnostic methods which permit separation of the population into those who have "mental illness" and those who do not, and case-finding techniques that can be used to detect cases of the disease in representative samples of different segments of the population. These are necessary in order to estimate the general prevalence and incidence of the disease with some degree of accuracy and to study its differential distribution by race, sex, age, geographic location, and so forth.

As all of us are well aware, mental illness is not a single entity. Rather we are dealing with a broad variety of disorders, including the functional and organic psychoses, the psychoneuroses, and that group of miscellaneous disorders referred to as disorders of character, behavior, and intelligence. For the most part the etiologies of these disorders, which range in severity from the near normal to the far extremes of psvchotic behavior, are not known and there are no standard methods for their diagnosis.

We have, of necessity, made various estimates of prevalence, but these estimates are based on data of limited applicability, derived from widely divergent sources such as censuses of patients in mental institutions, other studies of the hospitalized mentally ill, selective service and armed forces data, and community surveys. Although the facts from these sources are widely quoted, it might be well to review them at this time so that, with a better appreciation of their limitations, we can go on to consider progress that is being made in the study of the mass aspects of mental illness and to discuss some areas in which additional work is most urgently needed.

#### **Community Surveys**

First we will consider the two most widely quoted community surveys that have been carried out in the United States, one in Baltimore, Md., and the other in Williamson County, Tenn.

The Baltimore survey of 1936, conducted by Lemkau, Tietze, and Cooper (1), was limited to the Eastern Health District, an area about 1 mile square in the eastern part of the city which serves as the field laboratory for the Johns Hopkins University School of Hygiene and Public Health. At the time of the survey, this district had 55,000 inhabitants, one-quarter of whom were Negro. Among the white residents were many families of Hebrew and Czech extraction. The area is principally residential. The income level for both white and Negro families is definitely below the city-wide average.

The case-finding survey was made by searching the written records of some 43 institutions and agencies that deal with mental health problems, including public and private psychiatric hospitals, training schools for mental defectives and delinquents, psychiatric clinics, social agencies, the public school system, the National Health Survey, and the juvenile court. In many

Table 1.	Active	cases	of me	ntal	disorder	in the	Baltimore
Eastern	Health D	)istrict	Survey	, 193	36 (popu	lation:	55,129)

Leading classification	Num- ber of cases	Rate per 1,000
Psychosis	367	6. 7
Schizophrenia Manic-depressive Senile and arteriosclerotic Alcoholic Syphilitic With mental deficiency Other 1 Undiagnocod	158 41 38 15 29 28 27 21	2.9 .7 .3 .5 .5 .5
Psychoneurosis Psychopathic personality Personality disorder in adults Psychotic traits Neurotic traits	$     \begin{array}{r}       31 \\       171 \\       30 \\       218 \\       26 \\       60     \end{array} $	3.1 .5 4.0 .5
Psychopathic traits Behavior deviation	13 119	. 2 2. 2
Behavior disorder in children	449	8.1
Neurotic traits Conduct problems	162 287	2. 9 5. 2
Minor and possible disorder in adults and children Epilepsy Mental deficiency School progress problems without men- tal deficiency Adult delinquency without other infor-	651 75 375 434	11. 8 1. 4 6. 8 7. 9
mation	567	10. 3
Total active cases <sup>2</sup>	3, 337	60. 5

<sup>1</sup> Involutional, with epilepsy, post-traumatic, and deliria not due to alcohol. <sup>2</sup> Active+inactive cases: 3,416=62.0 per 1,000.

SOURCE: Reference 3, table 3, p. 11.

cases, either a psychiatric diagnosis or a detailed description by a competent social worker was available. Where no diagnosis was given, one was deduced from the written records. No cases were personally examined by the survey staff psychiatrist.

The cases included in the survey were those active on the books of the various institutions and agencies at some time during the survey year. They were classified into 10 major categories: psychosis, psychoneurosis, psychopathic personality, personality disorder in adults, behavior disorder in children, minor or possible disorder in adults and children, epilepsy, mental deficiency, school progress problems without mental deficiency, adult delinquency without other information.

Findings in the Baltimore survey are shown

in table 1. Cases are arranged according to their leading classification. For 1936, the survey year, 3,337 active cases of mental disorder, as defined, were found in a population of 55,129, a 1-year prevalence rate of 60.5 per 1,000. This rate includes epilepsy and mental deficiency as well as psychiatric disorders.

The Tennessee survey was carried out by Roth and Luton (2) in Williamson County, Tenn., a fairly typical agricultural community with an area of 586 square miles and a population of 25,000. One-quarter of the people in this area were Negro, the rest being mostly native white of English or Scotch-Irish extraction.

The project started in September 1935. The staff lived and participated in the normal life of the community so as to become acquainted with all aspects of community life and with various individuals and agencies whose cooperation was essential.

Cases were referred to the survey staff in several ways. Some were reported by physicians, nurses, teachers, clergymen, judges, and others who were in contact with large numbers of residents. Other cases were discovered by staff field workers through their community activities. Still other cases were found by search of institutional records. More than half of the cases were interviewed or examined by members of the staff, which included a psychiatrist, social workers, and nurses. In addition to this general county-wide investigation, an intensive house-to-house survey was conducted in three selected areas.

Approximately 2,000 cases were referred to the survey staff during the 3 years of the study. These cases were followed to determine their status as of September 1, 1938. On that date, 1,721 cases, or 69.4 per 1,000 population, were still residents of the county, as shown in table 2 where they are classified by primary diagnosis.

The range of mental health problems included in this study was about the same as that in Baltimore, although the cases were classified into only seven major groups. Significantly, the case rate for the three districts where an intensive house-to-house survey was made was 123.7 per 1,000 population, twice as high as the rate of 69.4 for the rest of the county. Since the intensive study areas were representative of the entire county, Roth and Luton have con-

Table 2.	Active	and	inactive	cases	of	meni	lal	dis	order	in
the Wil	liamson	Cou	nty, Tenn	essee,	Sur	vey	as	of	Sept.	1,
1938 (p	opulatio	on: 2	4,804)							

	Nu	Rate per		
Primary diagnosis	Active	In- active	Total	(total cases)
Psychosis Schizophrenia Affective Senile With mental defici- ency Other <sup>2</sup> Undiagnosed Psychoneurosis	121 ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) 89	35 ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) ( <sup>1</sup> ) 10	156 43 41 23 15 24 10 99	$ \begin{array}{c} 6.3\\ 1.7\\ 1.7\\ .9\\ .6\\ 1.0\\ .4\\ 4.0\end{array} $
Conduct and behavior disorder	285 152 208 19 40 914	129 34 127 184 288 807	414 186 335 203 328 1, 721	16. 7 7. 5 13. 5 8. 2 13. 2 69. 4

<sup>1</sup> Specific types of psychoses were not broken down by whether the case was active or inactive. <sup>2</sup> General paresis, other organic states, post-traumatic, with alcoholism, and with epilepsy.

SOURCE: Reference 3, table 4, p. 12,

cluded that case-finding methods used for the rest of the county were only about 50 percent effective.

Because of evident differences, the Baltimore and Tennessee survey results are not very comparable. Nor can these results be compared with findings in European countries, where a few surveys have been made. Lemkau, Tietze, and Cooper (3) point out that all of these studies suffer from poor selection of sample populations and insufficient numbers of cases as well as differences in fundamental concepts and differences in diagnosis and classification.

## Selective Service and Armed Forces Data

The second widely cited source of prevalence data is the World War II experience of the selective service system and the armed forces.

Selective service experience, as is well known, shows more registrants rejected for mental and personality defects than for any other type. Up to August 1, 1945, some 18 percent of all rejections had been due to these disorders (4).

Further evidence comes from studies on prevalence of medical defects made on a carefully selected sample of registrants who were examined during the period 1940–43. These studies showed mental illness as the sixth most common defect among all registrants in the sample, with a prevalence rate of 55.8 per 1,000. Among white registrants, mental disease was the fifth most prevalent defect; among Negroes, it was the eighth. The kinds of mental disorders de-



Figure 1. Resident patients in mental hospitals per 100,000 population, United States, 1903–1948.

tected were classified into five major groups, different from the classifications used in either the Baltimore or Williamson County survey. These selective service figures do not include mental deficiency as did the community surveys.

These data have, of course, a number of limitations. The prevalence rates depend upon such factors as the age group examined and the general medical standards prevailing at the time of examination, as well as variations in efficiency of screening for mental disorders at different induction stations (5). They also depend upon the number of voluntary enlistees. probably the more physically and mentally fit. who did not pass through selective service examinations. Other factors were nonexamination of men who did not meet certain educational standards, who had certain obvious physical defects, or who were deferred automatically because of dependency or occupational status. Thus, these rates cannot be applied with any conviction to the entire male population aged 18 to 44.

Armed forces experience, obviously, is even less applicable as a measure of mental illness prevalence in the general population. It applies to a group that was preselected through selective service examinations as well as through voluntary enlistments. Furthermore, the emotional tensions and the stress situations to which these men were subjected varied greatly in intensity, nature, and duration. An indication of the magnitude of the problem, insofar as the armed forces are concerned, is derived from the number of disability discharges because of neuropsychiatric reasons during World War II. Of 980,000 disability discharges from the Army during the period December 1941 through December 1945, 43 percent were for neuropsychiatric reasons (6).

#### **Patients in Mental Hospitals**

The most detailed data available on the mentally ill are derived from mental hospital records. These relate only to persons who are sufficiently ill to warrant admission into a hospital for long-term care of psychiatric disorders.

At the end of 1948, the most recent year for which data are available (7), more than 554,000 patients were resident in mental hospitals. This is a rate of 382 per 100,000, more than twice the rate of 186.2 found in 1903, the earliest year for which reasonably comparable figures are available (fig. 1). Throughout this period, the great majority of these patients have been cared for in the State hospitals, where 85 percent of long-term mental hospital patients now reside.

First admissions to the long-term mental hospitals have been used as an incidence index for the more serious mental disorders. They also give us information about age differences in first admissions for different types of disorders (fig. 2).

For example, in youth and early maturity, schizophrenia and manic-depressive psychoses are the predominant diagnoses at first admission, these reaching their peak in the late thirties and early forties. They are succeeded in importance during the next decade of life by the involutional psychoses. General paresis and alcoholic psychoses are also important at this period. In the sixties, psychoses with cerebral arteriosclerosis and senile phychoses assume prominence, and these mental diseases of the senium continue to rise in frequency until the end of the life span.

Although admissions of senile cases have increased greatly in the last decade, the resident population of most mental hospitals consists largely of a slowly accumulated residue of schizophrenic patients who are admitted during vouth or early maturity and stay, in many cases, until the end of the life span. The turnover of senile cases is very high, mainly because of their high death rate. These facts are illustrated by data from New York State, which show the percentage distribution by selected diagnosis of first admissions, discharges, deaths, and patients resident at the end of 1947 (fig. 3). These New York State data, together with material specially gathered in other States here and there, add considerably to our knowledge of the hospitalized population.

Another type of study of the hospitalized population is concerned with the ecology of psychoses. Faris and Dunham (8) have studied hospitalized psychotics in Chicago in relation to various socioeconomic factors, and a few other investigators have made similar studies in other areas (9). These studies have indicated:



Figure 2. Age specific first admission rates, per 100,000 civilian population, for selected diagnoses, to State hospitals for mental disease, United States, 1948.



New York State Department of Mental Hygiene.

Figure 3. Percent distribution of patients by selected diagnoses, New York Civil State hospitals, 1947.

1. All types of mental disorder tend to show a similar pattern of residence concentration in and around the central business district, with rates declining toward the periphery.

2. The schizophrenia rates characteristically show this typical pattern, while manic-depressive rates show much more scatter throughout the city.

3. Persons residing in areas not primarily populated by their own ethnic or racial groups show much higher illness rates than do the numerically dominant group.

All such studies of the hospitalized population suffer from several limitations. Only persons with severe disorders are hospitalized. Also, the adequacy of hospital facilities varies from State to State. Evidence of this is seen in the waiting lists maintained by the already overcrowded State hospital systems. Another indication is the wide State-to-State variation in resident patient rates, ranging in 1948 from 1.7 per 1,000 population in New Mexico to 5.5 in New York State. The third fact is that we do not know the relationship between the number of persons with a specific disorder who are hospitalized and the number of persons with a similar disorder in the population who are not hospitalized.

Before the hospitalization rate can be used to indicate the prevalence of a specific disorder in the general population, this relationship must be determined. In the Baltimore survey, only 75 percent of the psychotic cases were hospitalized at any one time, and the Tennessee survey indicated that in Williamson County only 50 percent were hospitalized. Because of the

different characteristics of the populations in which the surveys were made, including attitudes toward hospitalization and separation of individuals from their families and variations in availability of psychiatric services and hospital beds, it is difficult to determine what these findings mean with respect to unhospitalized psychotic cases in the rest of the United States. Nevertheless, even imperfect data may be helpful, as in the Framingham tuberculosis study of 1917 (10) which revealed nine active cases of tuberculosis in the population for each annual death from that disease. Although improved case-finding techniques have revised this estimate, this type of ratio derived from early studies has proved highly useful in public health work on tuberculosis control.

In short, existing data on the extent of mental illness have distinct limitations. We cannot say with any assurance just what proportion of our population is afflicted or how frequent are the various types of disorder.

To collect better information, some formidable methodological problems must be solved. For example, much work must be done in standardizing diagnostic procedures so as to get clearly definable and truly comparable groups of cases. Practical case-finding techniques must be developed, such as screening methods for finding persons in the general population, even those not under psychiatric care, who actually have detectable mental illness. In the course of seeking answers to these problems, a great many other facts will be found which will have high value in the development of adequate facilities for psychiatric diagnosis and care, and for learning what kind of preventive services are needed and are feasible.

## **Studies in Progress**

Progress is being made. A number of extremely promising projects have been started in recent years. Each represents a team effort in which the psychiatrist, psychologist, social scientist, and other research personnel are combining their skills and knowledge. Among the most interesting are the following studies.

The Stirling County project, under the direction of Dr. Alexander H. Leighton of Cornell University, is an intensive study of a county in Nova Scotia. The research has three major objectives. One is to develop case-finding techniques for all types of mental disorder. Data will be obtained on persons hospitalized for psychosis, severe psychoneurosis, or psychosomatic complaints. A clinic is being set up to do some follow-up of hospitalized patients as well as to examine patients referred by physicians. clergymen, schools, police, unemployment insurance offices, and health, welfare, and other local agencies. A second objective is to evolve screening tests applicable to the general population which will serve as a check on the completeness of other case-finding methods. The third objective is to map various types of social stress in the community and to study the relationships between such stresses and the appearance of mental illness. To eliminate the effect of biases and preconceptions, one team of investigators is doing the case finding and another is mapping the stresses. The two series of data will be merged and correlated to determine existing relationships.

The Yale project is the joint endeavor of a psychiatrist and a sociologist, and is being aided by the National Institute of Mental Health through a research grant. Its directors, the two Yale faculty members, Dr. F. C. Redlich and Dr. A. B. Hollingshead, are investigating interrelations between social structure and mental illness. In connection with this problem, they are taking a census of persons in a metropolitan area receiving psychiatric treatment, that is, persons in mental hospitals, attending mental hygiene clinics, or under private psychiatric care. In addition, the social structure of this metropolitan area is receiving intensive study. Correlations will be sought between these social variables and the frequency and types of mental illness found, as well as the attitudes of various groups toward mental illness and psychiatry, the types of psychiatric treatment they obtain, and their clinical response to various treatment methods.

The Syracuse project, initiated by the New York State Mental Hygiene Commission under the direction of Dr. Ernest M. Gruenberg, deals specifically with mental illness in the older age groups. Here, too, a major objective is case finding through the development of methods for detecting unhospitalized persons with senile psychoses and psychoses with cerebral arteriosclerosis. The project also includes a study of the relationships between the hospitalized and nonhospitalized senile population, according to various social and economic factors. A further step will be the development of clinical and preventive services in the community to learn what effect adequate services can have on reducing the incidence of mental illness among the older residents.

The Phoenix Mental Health Center is conducting a fourth research program of interest. This center is a field research station of the National Institute of Mental Health, established to study the mental health needs of a community and the feasibility and effectiveness of various ways of meeting those needs. To date the project has not involved systematic case finding, but one of the studies conducted at Phoenix has important implications for the development of more adequate case-finding techniques. This was a survey, conducted by the Survey Research Center of the University of Michigan, of public awareness of the mental health aspect of such problems as anxiety about a nervous breakdown, extreme conflict in marriage, and habitual stealing in a child. The survey tried to ascertain what people thought they would do about using the available resources for aid in dealing with such problems.

Interviews with 500 adults, 100 each in five widely varying areas of the city, revealed that many people seemed wholly unaware of the importance of personality development relative to the problems discussed. A great many saw simple circumstances—such things as worry about financial insecurity, the fast pace of life. or family crises—as a sufficient cause for anxiety about a nervous breakdown. Others saw the problem as a lack of will power in the individual. Individuals with such conceptions of causation were likely to see self-help as the only way to handle the problem. Those who mentioned attributes of personality as the primary cause or an aspect of the cause of anxiety about a nervous breakdown were much more likely to report that they would seek professional aid if faced with such a problem.

It was also found, as in several other studies of public opinion on mental health problems, that more people would seek aid from members of the clergy than from any other group. This study, then, emphasizes some of the reasons why, unless all community resources are mobilized, it is so difficult to detect all cases of mental disorder in a community. Misconceptions about the cause of adjustment problems which apparently prevent many people from seeking available help, coupled with reluctance to admit the existence of problems to which blame attaches, make detection of minor or even relatively severe mental disorders difficult unless there is direct access to the individuals in question.

These and other current research activities, such as that being carried out by Dr. Erich Lindemann and his associates at the Wellesley Human Relations Service, will undoubtedly give us a great deal of valuable information related to the epidemiology of mental disorders in the population. Meanwhile, suggestions for further research are in order. These are of two types, additional community surveys and more intensive follow-up studies of mental hospital patients during and after hospitalization.

Additional community surveys are needed. and needed urgently. Even though we still do not have practical techniques for determining the number of mentally ill, treated and untreated, we need and can obtain some very important data. One type of information concerns the people in the community who are now obtaining various kinds of psychiatric aid. In communities with better-developed services, we can assume that a large proportion of the more seriously ill will be under psychiatric care and. therefore, more accessible to epidemiological study. From this group we can learn a great deal, in spite of the fact that it will not include all of the mentally ill. It is, at least, a starting point.

A community could establish a central clearinghouse of patients, including all residents of public and private mental hospitals, psychiatric wards of general hospitals, and outpatient mental health clinics. This could cover such factors as residence, age, sex, color, marital status, nationality, source of referral, diagnosis, appropriate socioeconomic data, a family roster, and pertinent familial data.

Such a file could be a mine of information. serving not only in basic epidemiological research but also in the planning and development of community mental health projects. For example, the community might be subdivided according to relative rates of usage for various psychiatric services and types of disorders treated. It would be possible to map out the differential distribution of hospitalized disorders, as opposed to those seen in clinics and by private psychiatrists, according to age, race. sex. and residence. It might be possible to detect sociological factors that, within a given area, may differentiate the hospitalized mentally ill from the patients who require only out-patient clinic or office care.

If adequate personnel could be obtained to implement them, special studies could be made to investigate differences in income, occupation, education levels, and attitudes toward mental illness. What are the differences in pattern of family organization and the kinds of emotional problems that these families encounter? What differentiates the families of individuals who use psychiatric facilities from other families in similar areas who do not use them? Are the members of these other families free of serious mental and emotional difficulties or do they have these disorders but handle them in a different manner? What factors influence early submission to treatment, and how is early treatment related to the course of disease and results of treatment? It would also be useful to know something about mortality and morbidity rates from acute and chronic illnesses other than mental illness in families with mentally ill members. From this we might learn whether families of the mentally ill may be a group more vulnerable to health hazards than a control group of families.

Such intensive community studies could have special value because, even if they do not cover all mentally ill persons, they can bring together for a specific population group data on many aspects of mental disorders and related factors which now must be derived from scattered studies on diverse population groups.

More data on mental hospital patients are also urgently needed, especially follow-up information. A major need is in connection with the evaluation of therapy. The concept of the men-

Vol. 67, No. 2, February 1952 981806-52-4 tal hospital merely as a place of custody is no longer acceptable. To make these hospitals effective in their modern role, we must learn more about the patient, what happens to him in the hospital, and what happens upon his return to the community.

We should obtain facts that will enable us to follow groups of patients through their hospitalization and after. For example, of patients admitted in a given year, what proportion remain in the hospital, are on trial visit, discharged, or dead after 1, 2, or 3 years following admission? How are these discharge and death rates related to diagnosis, age on admission, therapy, and other relevant factors?

On a nation-wide basis, we have only the crudest data about discharged patients. We need information on diagnosis, sex, duration of illness, age on admission, types and duration of therapy, duration of stay in the hospital, and condition on discharge. These facts should be analyzed on a life-table basis and by other appropriate statistical methods.

As to patients who have been discharged, how many relapse and how soon? How are relapse rates related to diagnosis, age on admission, length of hospitalization, therapy? Furthermore, we should like to know what social and environmental factors encountered by discharged patients are related to relapse or successful readjustment. Follow-up studies of patients discharged from tuberculosis sanatoria have proved very profitable in our understanding of that disease (11, 12). There is no reason to suppose that such studies would be less valuable in the study of mental illness. If really accurate data are obtained on discharged mental patients, it may be possible to work out "discharge prediction" techniques, weighting significant factors in the patient's life history, diagnosis, clinical course in hospital, degree of improvement, and expected family and community environment. Furthermore, better understanding of relapse factors would greatly aid the development of rehabilitation programs for patients, while they are still in the hospital and later when they have returned to the community.

Some highly encouraging steps taken recently should give us much better hospital data. The National Institute of Mental Health now takes an annual census of patients in mental hospitals. This work was formerly done by the Bureau of the Census. It has long been recognized that the facts obtained through this census should be expanded to include additional important data. In February 1951, representatives of 11 State hospital systems met in Washington to discuss how better and more useful material could be obtained. These State systems, caring for 55 percent of hospitalized mental patients in the United States, decided to establish a model reporting area which would furnish comparable data on patients under their care. It is anticipated that, as the usefulness of improved reporting becomes apparent, other States will want to improve their reporting and methods of analyzing data to the point where they, too, will be able to enter the model area. It will be several years before the results of this effort will bear fruit but, eventually, it should give us a useful body of raw material for profitable research. In addition. these facts should prove highly useful to hospital administrators in developing and evaluating their programs.

## Summary

Our basic knowledge of the distribution of mental illness in the population has distinct limitations. But this is understandable. It is only recently that there has been widespread acceptance of mental health as a sphere of public health and of the fact that an attack on mental illness must reach beyond more serious hospitalized cases to those persons in the community with psychoneuroses and behavior disorders that cause untold suffering and economic loss. Because of the complexity of the problem, effective research on the community aspects of mental illness must be interdisciplinary, combining the skills and knowledge of the psychiatrist, psychologist, social scientist, public health physician and nurse, psychiatric social worker, epidemiologist, and statistician. The fact that at least five projects are currently going on in which a team approach is being used is more than encouraging. We can be sure that progress is being made. Not only should the

projects give us better methods for counting cases; they should also, through their findings, show the way to better service and education programs. Thus can the emphasis in psychiatry's function be changed from treatment to prevention—the emphasis in its location, from the mental hospital to the community.

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