Progress in Reporting Mental Hospital Statistics

Fourth Annual Conference of Mental Hospital Administrators and Statisticians

THE FOURTH Annual Conference of Mental Hospital Administrators and Statisticians, sponsored by the National Institute of Mental Health, Public Health Service, was held in Bethesda, Md., on April 19–20, 1954, to discuss developments in the field of mental hospital statistics. The conference was attended by delegates from the 15 States which are members of the Model Reporting Area for Mental Hospital Statistics and by a representative from the Veterans Administration. The States composing the model reporting area are: Arkansas, California, Illinois, Indiana, Kansas, Louisiana, Michigan, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Texas, Virginia, and Wisconsin. Also present were observers from the States of Massachusetts and Oklahoma.

In his opening remarks, Dr. R. H. Felix, director of the National Institute of Mental Health, indicated that the idea of States working in concert for better, more meaningful, and more comparable statistics had caught on in States other than those represented as well as in other areas of the world. A number of requests for information as to purpose and membership requirements of the area had come to him. The report, Training and Research in State Mental Health Programs, published in 1953 by the Council of State Governments, had, in its recommendations dealing with the responsibilities of the States in the field of mental health, urged that "all States should cooperate with the Public Health Service in the adoption of uniform terminology and statistical reporting procedures in the field of mental health." At the February 1954 National Governors' Conference on Mental Health a 10-point program was recommended for action by all the States. One of these points stated: "One of the important obstacles to adequate evaluations of procedures and therapies is a lack of uniformity in statistical methods in mental hospitals and clinics throughout the country. All States should cooperate with the United States Public Health Service and the American Psychiatric Association in the adoption of uniform terminology for statistical procedures in the field of mental health." That these needs transcend national boundaries is shown by the fact that the World Health Organization had requested and received permission from Dr. Felix to publish excerpts from the proceedings of the previous conferences for the benefit of experts in mental health and committees on vital and health statistics in some 30 countries.

Prepared by the Current Reports Section, Biometrics Branch, National Institute of Mental Health, National Institutes of Health, Public Health Service.

The Progress Reported

The delegates from each of the 15 States and the Veterans Administration reported on accomplishments, developments, and operating

problems in their statistical departments since the third annual conference held in 1953. That progress had been made during the year was evident. Every State represented was already using the Register of Hospitals Recognized and Authorized for the Treatment of Mental Disorder, established by the model reporting area in 1953 to determine the first admission or readmission status of admitted patients. This meant that the decision of the States to make definitions of first admission and readmission uniform and to make statistics more comparable in the area from State-to-State had been implemented. With one exception, every member State of the area would be using the new, revised psychiatric nomenclature by the end of 1954. The use of a common diagnostic language is essential for comparing the diagnostic distributions of patients admitted to or resident in the mental hospitals of the respective States.

Participants in the Conference

Model Reporting Area

Josephine W. Knowles, registrar, State Hospital, Little Rock, Ark.

R. D. Morgan, statistical research officer, State Department of Mental Hygiene, Sacramento, Calif.

Phillip W. Wenig, supervisor, research and statistics section, Department of Public Welfare, Springfield, Ill.

Irving Miller, statistician, division of mental health, State Department of Health, Indianapolis, Ind.

Jack C. Pulliam, biometrics supervisor, State Department of Social Welfare of Kansas, Topeka, Kans.

Louise Kemp, chief, division of research and statistics, State Hospital Board, Baton Rouge, La.

Robert Glass, procedures analyst, State Department of Mental Health, Lansing, Mich.

John F. Wenstrand, chief, research and statistics, State Department of Assistance and Child Welfare, Lincoln, Nebr.

Emil Frankel, Ph.D., chief, bureau of social research, State Department of Institutions and Agencies, Trenton, N. J.

Benjamin Malzberg, Ph.D., director, bureau of statistics, State Department of Mental Hygiene, Albany, N. Y.

Donald E. Smeltzer, administrative assistant, State Department of Public Welfare, Columbus, Ohio.

Gertrude H. Thompson, statistician, research and statistics, State Department of Welfare, Harrisburg, Pa.

H. H. Ullom, biometrics supervisor, Board for Texas State Hospitals and Special Schools, Austin, Tex.

Edna M. Lantz, statistician, State Department of Mental Hygiene and Hospitals, Richmond, Va.

John W. Mannnering, chief statistician, bureau of research and statistics, State Department of Public Welfare, Madison, Wis.

Other participants

Nelson A. Johnson, director of social service, Warren State Hospital, Warren, Pa.

Morton Robins, chief of the resources and evaluation division, reports and statistics service, Veterans Administration, Washington, D. C.

Unofficial observers

Thomas F. Pugh, Ph.D., director, division of research and statistics, State Department of Mental Health, Boston, Mass.

Donald D. Tolliver, Department of Mental Health, Oklahoma City, Okla.

Dorothy Shelley, administrative assistant, bureau of mental health, State Department of Welfare, Harrisburg, Pa.

National Institute of Mental Health

R. H. Felix, M.D., director.

Morton Kramer, Sc.D., chief, biometrics branch.

Hyman Goldstein, Ph.D., chief, current reports section, biometrics branch.

Anita K. Bahn, chief, outpatient reports and records unit, biometrics branch.

Bernard H. Kroll, statistician, current reports section, biometrics branch.

Thirteen of the fifteen States either are conducting cohort studies or are planning to conduct them in the near future. These are studies in which groups of patients with common characteristics, such as first admissions of a specified year with given age, sex, diagnosis, and so forth, are followed from the date of admission (starting point) through their hospital experience to determine their disposition by trial visit, discharge, or death (end point) within specified periods of time following admission. There are various types of cohort studies, each one of which is designed to answer specific questions.

In a number of States, the expansion of the functions of the statistical department to include accounting and other business management duties has taken place. In most cases, this would bring about the acquisition of additional tabulating machines and personnel and, in the long run, would make more men and machines available for statistical studies. Cautions were voiced at the conference that such rearrangement of functions should not result in converting a statistical department into an accounting department.

Among the projects currently under way or proposed for the near future in the 15 States are:

Modification of the statistical system to present a more accurate followup of the patients from the time of their first admission to any later admissions or to the time of transfer from one hospital to another.

Survey of inpatient populations in terms of which patients might possibly be cared for outside a mental hospital.

Cohort studies of first admissions by therapy, age, sex, and diagnosis.

Followup studies of patients on extramural care to determine what happens to such patients; that is, how many patients adjust and are retained in the community; how many die; how many relapse and are returned to the hospital.

Study of criminal behavior of mental patients before and after hospitalization.

Study of treatment indicated for patient, treatment given patient, and treatment results.

Study of the disposition of schizophrenic patients receiving somatic treatment compared to the disposition of those not receiving such treatment.

Followup study of lobotomized patients.

Comparison of adjustment in lobotomized experimental groups and in matched nonlobotomized control groups.

Retrospective study of patients discharged from mental hospitals 10 years ago in order to establish their status as of the present.

It was emphasized that the interpretation of some of the studies currently under way in mental hospitals depends on a knowledge of the community distribution of mental disorder, on a greater understanding of the types of patients getting into such hospitals, and on a determination of what happens to patients once they are back into the community. An epidemiological orientation toward mental disease is urgently needed.

Well-controlled, evaluative studies of therapy using patients selected at random and matched for therapy and nontherapy groups are sadly lacking in the field of hospitalized mental illness. Until such studies are conducted, the relative values of specific therapeutic measures will be doubtful.

Need was indicated by the States represented at the conference for certain statistical data on residents of these States who are receiving inpatient care for mental illness under the auspices of the Veterans Administration. Such data are necessary in order to arrive at definitive knowledge with respect to the problem of hospitalized mental illness among such residents. As a result, the conference requested the Veterans Administration to supply statistical data in the form of tables or necessary punchcards. Under this plan, tabular data would be obtained and would be distributed by the National Institute of Mental Health to the States concerned.

Uniform Tabulations

The Biometrics Branch of the institute presented a review dealing with special census tabulations prepared by the area States to date (1952–53). The problems attending such preparation were reviewed. Such problems related

to difficulties encountered in changing from the old to the new psychiatric nomenclature, in getting complete diagnoses from the hospitals on all, or almost all, patients, in changing record forms and information to be reported, in completing schedules on time with personnel shortages, and so forth. Reviewed and reemphasized was the part that completed tabulations of the type and format requested by the National Institute of Mental Health play in permitting the calculation of meaningful resident patient rates, first admission rates, discharge rates, and death rates, by age, sex, length of stay, and diagnosis. Unanimously agreeing that the basic tabulations requested are useful and essential to an understanding of mental hospital operations, the conference group voted that the same tabulations be completed for the year 1953–54.

Furthermore, it was resolved that decisions with respect to statistical reporting, approved by the model reporting area States as represented by their conference delegates, be binding on all such States as a prerequisite to membership in the model area. This would indicate that the urge to secure uniformity for interstate comparison was a dominating influence on the thinking of the conference.

There was general agreement that the reporting picture for the year 1953–54 would show marked improvement in view of the strengthening of the statistical reporting systems that has taken place during fiscal year 1952–53 in the various States and in view of greater understanding and acceptance of the revised psychiatric nomenclature by the medical staffs.

Cohort Studies

The literature dealing with cohort studies of mental patients was generally reviewed. The purpose and methodology of such studies were discussed, covering such topics as definitions of the groups studied and the end points used, the computation of rates and methods of analysis, and the graphic presentation of results. In connection with this discussion, there was presented a series of slides showing results of a cohort study of first admissions to the Warren State Hospital, Warren, Pa., during the period 1916–50. This study is being carried out by the Biometrics Branch of the National Institute of Mental Health in cooperation with the hospital.

The purpose of the study is to determine the proportions of first-admission patients with specified characteristics (age, sex, and diagnosis) admitted in certain years, who were continuously resident in the hospital, released alive, or dead within specified periods of time following admission to the Warren hospital and to ascertain the probabilities of remaining continuously in hospital, of release, or of death during a specified interval of time after admission. First admissions to the Warren State Hospital were followed from the date of admission until the date at which the patient was first released alive to the community (either on a trial visit or direct discharge basis) or died in the hospital. Patients who returned to the hospital after a trial visit or discharge were not reentered into the experience. This rule was adopted because the study was designed to answer this question:

Given a group of first admissions with specific characteristics, what are their chances of being returned to the community for the first time within specified periods after admission? Some studies have taken the date of discharge from the books as the end point. This approach not only increases the interval between admission and end point but also masks what happens to patients in the period of convalescent care. The number of returns from convalescent care through failure in the community are not available in this type of study. It was deemed more reasonable to set up additional studies to answer such questions as:

At what rate are released patients with specified characteristics readmitted to the hospital?

Of those released patients who stay in the community, what proportion successfully adjust?

What environmental and social factors encountered by discharged patients are related to relapse or successful readjustment in the community?

How are relapse rates among released patients related to diagnosis, sex, age on admission, length of hospitalization, and therapy?

Discussion following the showing of the slides

emphasized that although the Warren State Hospital study provides more precise data about length of stay and probabilities of release alive or of death in relation to age at time of admission, sex, and diagnosis, and changes in these probabilities over a period of time, extreme caution should be exercised in attempting to explain what has produced these changes. For example, there has been a considerable improvement in the rate of release of functional psychotics during the first year of hospitalization. In the period 1916–25, 42 percent of such first admissions were released within 1 year following date of admission as compared with 62 percent in the period 1946–50. One may ask: Is the improvement in the release rates due only to the use of new therapy, which is for the most part unevaluated to date? Is it due to some other fact or factors, or a combination of therapy and other factors? The evaluation of therapy from mass hospital data is difficult because control groups are rarely incorporated into the study design and because patients are never randomly placed into various treatment groups and kept on well-controlled predetermined therapeutic plans. Other factors that influence the release rate are:

Type of patient admitted. Is the patient being admitted today a better risk than the one admitted 30 years ago?

Administrative factors. Are the administrative factors that enter into decisions affecting release of patients the same now as those which were in operation 30 years ago?

Condition of patient at time of release. Are patients as comparably well now at time of release as in earlier periods, or are patients released sooner as a result of a different attitude on the part of the hospital staff toward the expected condition of a patient at time of release?

Community factors. What factors in the community's attitude toward the mentally ill have brought about greater chances of release?

Much more research is needed to provide answers to the foregoing questions. Despite the limited answers that cohort studies yield, such studies do provide mental hospital administrators with a method for describing accurately the flow of patients through the hospitals, pointing up significant trends in the rates at which patients are released from or die in the hospital and pinpointing significant areas for research.

Discharge and Death Rates

Discussion of discharge and death rates indicated there is great variation in the types of rates used in the various States. For instance, discharge rates might pertain to discharges per 100 admissions, per 100 first admissions, per 100 patients on the books, per 100 average daily resident population, and so forth. Similar variations are found in death rates. Although computed in different ways and with different bases, the discharge and death rates used by the States are primarily intended to furnish some indication of hospital turnover. The lack of uniformity both in the definition of "discharge" as well as in the base used in the denominator of the rate makes for incomparabilities in published rates. There was general agreement that the rates left much to be desired since they are subject to considerable misinterpretation.

A committee was appointed to provide the States with guidance for developing and using cohort methodology and to look into the possibility of standardizing various movement rates. The committee is to consider the possibility of preparing a manual which describes the purposes of cohort studies and sets up procedures and methods for conducting such studies. The committee will also evaluate hospital discharge and death rates in use and make recommendations for possible revisions of current practices.

The conference touched upon the subject of followup studies of patients released or discharged from mental hospitals. Such studies, involving field followup of patients in the community, are designed to determine what happens to patients following discharge from the hospital. What has mental hospitalization done for them? Even though it may be demonstrated that patients are being released more rapidly than ever before, are the patients really better off? Do they relapse at a faster rate as compared with former years? At the present time, only one State—California—is planning to institute a study in this area. In another State, Pennsylvania, a State hospital is planning to conduct a similar study.

Statistics for Consumers

The frequency of requests from administrators, legislative bodies, and lay groups for statistical material and the uses to which such material has been put were discussed. The type of statistics prepared and the manner of presentation were deemed important in stimulating interest in research and in care and treatment programs in this field, and also in avoiding the misinterpretation and misuse of data in view of the varying levels of sophistication among the consumers of such data. In a number of States, the hospital administrators have been interested in having cohort studies conducted in their hospitals so that they would see for the first time just what is happening in the movement of patients in and out of their institutions. Results of such studies would stimulate medical staffs to make additional inquiries and examine their treatment programs more objectively. The value that rates derived from cohort studies may have in conversations with patients and their relatives was stressed, particularly in indicating the probability of release.

A committee was set up to determine ways and means of presenting statistical mental hospital data to the public in an easily understood manner. This committee is also to make recommendations as to the kinds of data that would be useful for presentation. A number of delegates felt that this project is of great importance if the accomplishments of mental hygiene departments over the years are to receive the careful attention of legislative bodies and the public.