Problems of Estimating Changes in Frequency of Mental Disorders

formulated by the committee on preventive psychiatry

Group for the Advancement of Psychiatry

PUBLICATIONS OFFICE:
104 EAST 25TH STREET
NEW YORK 10, NEW YORK

Copyright © 1961 by Group for the Advancement of Psychiatry, Inc.
104 East 25th Street, New York 10, N.Y.

The Group for the Advancement of Psychiatry gratefully acknowledges the support of the following foundations and organizations during the last three years:

AMBROOK FOUNDATION
MARION R. ASCOLI FUND
BING FOUNDATION
BUNKER FOUNDATION
CARRIE CLINIC FOUNDATION
CIBA PHARMACEUTICAL PRODUCTS
THE COMMONWEALTH FOUNDATION
LOUIS & PAULINE COWAN FOUNDATION
CROOKES-BARNES LABORATORIES
DIVISION FUND
THE FIELD FOUNDATION
GENERAL SERVICE FOUNDATION
THE GRANT FOUNDATION
HARRIS FOUNDATION
HOFFMANN-LaROCHE INC.
ITTLESON FAMILY FOUNDATION
J. M. KAPLAN FUND
McGREGOR FUND
MERCK & COMPANY, INC.
PfIZER LABORATORIES
SCHERING CORPORATION
THE MONA BRONFSMAN SRECKMAN FOUNDATION
SMITH KLINE & FRENCH FOUNDATION
WALLACE LABORATORIES
WEYERHAUSER FOUNDATION
WYETH LABORATORIES
Problems of Estimating Changes in Frequency of Mental Disorders

TABLE OF CONTENTS

I. INTRODUCTION .................................................. 469
II. THE RANGE OF PROBLEMS...................................... 470
   The Fact of Change ............................................. 470
   Methodological Problems ...................................... 472
   The Causes of Change ......................................... 473
III. PROCEDURE ..................................................... 475
IV. DISCUSSION OF FINDINGS ...................................... 477
   Summary of Problems ......................................... 477
   Discussion of Findings in Illustrative Disorders ......... 479
      Conversion Hysteria ......................................... 479
      Syphilitic Psychoses ......................................... 484
      Psychoses of the Aged Including
      Arteriosclerotic Psychoses ................................... 488
      Psychoses Associated with Pellagra ......................... 491
      Deliria with Pneumonia ....................................... 494
      Alcoholic Psychoses ......................................... 496
      Cretinism ..................................................... 499
      Post-Encephalitic Encephalopathy ......................... 502
      Bromide Psychosis .......................................... 503
      Neurocirculatory Asthenia ................................... 504
      Psychoneuroses with Diffuse Anxiety ...................... 506
V. GENERAL DISCUSSION AND CONCLUSIONS .................... 509
   REFERENCES .................................................. 514
   BIBLIOGRAPHY .................................................. 515

The Group for the Advancement of Psychiatry has a membership of approximately 185 psychiatrists, organized in the form of a number of working committees which direct their efforts toward the study of various aspects of psychiatry and toward the application of this knowledge to the fields of mental health and human relations. GAP is an independent group and its reports represent the composite findings and opinions of its members only, guided by its many consultants.

Collaboration with specialists in other disciplines has been and is one of GAP's working principles. Since the formation of GAP in 1946 its members have worked closely with such other specialists as anthropologists, biologists, economists, statisticians, educators, lawyers, nurses, psychologists, sociologists, social workers, and experts in mass communication, philosophy, and semantics. GAP envisages a continuing program of work according to the following aims:

(1) To collect and appraise significant data in the field of psychiatry, mental health and human relations;
(2) To re-evaluate old concepts and to develop and test new ones;
(3) To apply the knowledge thus obtained for the promotion of mental health in good human relations.
Problems of Estimating Changes in
Frequency of Mental Disorders*

I. INTRODUCTION

Many psychiatrists feel that changes in the frequency of certain mental disorders have taken place in this country over the past two or three decades. Our committee set out to examine the evidence upon which these notions are based and to analyze some of the theoretical and methodological problems involved in making valid estimates of trends. The study has been carried out with the resources readily available, short of a systematic research project, and it is reported in order to draw attention to an area of great importance which has until now been relatively neglected.

The investigation of patterns of change in the frequency of some mental disorders is a matter of importance to psychiatrists and to all those engaged in preventive planning. Preventive activities must ultimately be evaluated by measuring such changes in the future; and in order to obtain base line data we must be able to estimate current trends. This knowledge is also of value in guiding planning for strategic reallocation of community resources to prevent and control mental disorders.

The determination of patterns of change has further significance in that it may throw light on associated factors which have influenced alterations in the frequency of mental disorders. A study of these sources of change may suggest the development of policies to induce change in the desired direction and to counteract factors which are linked with increases in the frequency of some disorders.

*Thanks are acknowledged to the following for their assistance in preparing this report: Lannie MacDonald, M.D., a GAP Fellow, Herbert C. Birch, Ph.D., M.D., Consultant, and Miss Adele W. Morison, who made significant contributions to the work of the committee. GAP members on the Committee on Preventive Psychiatry responsible for formulating this report are listed on page 517.

II. THE RANGE OF PROBLEMS

Any approach to the estimation of changes in the frequency of mental disorders is beset by many complicated problems. These may be considered at three levels. The first is that of fact, and requires the determination of whether there are indeed mental disorders which have exhibited significant trends of increase or decrease over a defined time span. The second level of problems derives directly from the first, and represents the consideration of the methodologic requirements for the establishment of the facts of change. The third level is that of causality. This requires both induction from the factual data, together with hypothesis formation, in order to identify the agencies or practices which were influential in modifying the social and individual manifestations of the disorder under consideration. Although these are interacting levels, convenience and clarity of exposition are probably best served by treating them separately.

A. The Fact of Change

It is first necessary to define the concept of frequency in such a way that changes in it will have significance. Clearly, a mere statement that a certain number of cases of a disorder has been observed at a particular point in time is not a sufficient index of frequency. It does not specify the size of the population within which this number of cases occurred. If the size of the population at risk of suffering the disorder changes, the number of cases observed is likely to alter even if all the etiological factors remain constant. From this it follows that a meaningful observation or calculation of frequency involves an estimation of a ratio of two quantities—a numerator, comprising the number of cases observed at a particular time, and a denominator, consisting of the number of persons who were potential candidates for the disorder in the population being reviewed.

In arriving at such a frequency ratio it is necessary to specify
certain attributes, both of the sufferers from the disorder and of the population at risk, in order that there will be a matching of the units in the numerator and the denominator. If the mental disorder is specifically related, for example, to age or sex, e.g., senile psychoses or post-partum psychoses, it would clearly not be appropriate in calculating the ratio to use as the denominator the total number of persons in the population but rather the number of old people in the first case and the number of parturient women in the second instance.

When change of frequency over time is considered, it becomes clear that not only changes in the numerator but also changes in the denominator have to be taken into account. Thus, if the population over 65 in a certain geographic area doubles over a twenty-year period, the number of cases of senile psychoses must more than double before an increase in frequency can be said to have occurred. This implies that any statements about changes in frequency of mental disorders must be linked with a specified geographic area and a population of which the changes in composition are noted.

Over a time period a mental disorder may change with respect to its prevalence, incidence, severity, duration, and eventual fate. Although each of these manifestations has different references and foci as indices of a disorder, they affect one another in specifiable ways. Thus prevalence, which represents the relative frequency with which a disorder may be found in a specified population at a given time, will be modified by both incidence, the rate of new cases occurring in a specified time period, and duration of new and old cases which will determine the size of the residual pool. In their turn incidence data will be modified by changes in severity, since an increase in disablement will increase the ease of case identification, whereas a mildly disabling manifestation may well fail to be noted. In still another way the eventual outcome or fate of a disorder may obviously affect duration and prevalence data, since death and chronicity have opposite effects.

In addition to the foregoing, the problem becomes even more complicated because (as elaborated upon later); (1) social attitudes toward illness change and may affect the number of patients who seek help; (2) available psychiatric resources increase or diminish—contributing to an increase or decrease in the number of reported cases; (3) changes in diagnostic skills, fashions and nomenclature also increase or decrease the total number of reported cases in any specific diagnostic category.

It is apparent from these considerations that the task of determining time trends in mental disorder leads to methodological issues.

B. Methodological Problems

The methodological problems involved in ascertaining such changes in the frequency of mental disorders as have in fact occurred are the main focus of this report. A major problem is usually the lack of knowledge of the ecological characteristics of the population at risk which has been served by the agency responsible for detecting the cases of mental disorder. Usually this is an agency whose primary goal is the treatment of mentally disordered patients, and the population which it serves in this way varies from time to time in response to many factors: changes in the administrative policy of the institution which influence intake; changes in the geographic area served; alterations in attitudes of the community towards seeking treatment from that agency for a particular condition; and changes in the availability of resources to handle those who request treatment. These are in turn associated with budgetary and personnel changes. The consequence of all these factors is that the population at risk—from which the cases of mental disorder are being drawn by the institution—is varying in a complicated way with the passage of time, and the detailed composition of this population is usually not known. This is especially likely to have been the case in the past, when the significance of such knowledge may not have been appreciated. As already indicated, unless the population denominator can be adequately defined and counted at two points in time, no comparison of ratios based only on the numerators of observed cases of mental disorder will be meaningful.

A variety of other problems emerges from the fact that we usually have to rely upon treatment agencies for information about the number of cases of mental disorder in a community. Since the workers in these institutions are primarily motivated to satisfy service demands, they usually have neither the time nor the interest nor the training to keep records which will be consistent over time. Changes in staff and in their interests and biases will alter what is recorded and also which patients are attracted to the
treatment service. Moreover, psychiatric diagnosis is notoriously arbitrary and there is only moderate reliability between individual psychiatrists or institutions. This problem is compounded by changes in diagnostic fashions and by alterations in nomenclature, so that different numbers and types of disorders may be included under a certain heading, or the same disorder may be given different names at successive times. Differences over time may be due not only to diagnostic fashions but also to improvements in diagnostic technology and skills. Finally, it must be realized that the definition of a certain form of behavior as a mental disorder requiring psychiatric treatment is related not only to the subjective appraisal of the sufferer which is influenced by the values of his culture, but also to the tolerance and containment procedures of his family and the population in which he lives, all of which are likely to change with the passage of time.

Some of these sources of error are avoided if a special research agency collects data on the frequency of mental disorders. Such an agency, staffed by psychiatrists, epidemiologists, and biostatisticians, will focus on uncovering cases in the general community by means of population surveys, and will thus avoid the pitfalls of dependence on changing patterns of medical care. It will also pay special attention to the detailed composition of the population at risk. Such epidemiological research units in the field of mental disorder are of relatively recent origin. Their findings cannot be used to determine changes which have already taken place, since we have no comparable baseline data with which to compare them. They hold out the main hope for the future, but their work is also beset by complications of a methodological and administrative nature, and some of these will be discussed briefly later in this report.

C. The Causes of Change

One main benefit to be derived from these studies is the light which may be shed upon the etiology of mental disorder. This implies a careful examination of the circumstances associated with those changes which can be shown to occur. This too is not a simple matter. It involves an analysis of the natural history of the disorder, which may alter in virulence over time without reference to external factors. Changes in the course of social history, such as alterations in living conditions or containment patterns, may be of importance. Alterations in frequency may be produced directly by focused attempts at prevention of a particular mental disorder. More often the changes can be understood to be the indirect and inadvertent consequences of general medical or other procedures which were focused upon some other condition. The psychiatric treatment of individuals suffering from a mental disorder may shorten duration and thus reduce prevalence. In any particular instance of change in frequency, a combination of these factors may be involved.
III. PROCEDEUE

The Committee decided to choose a number of mental disorders in which it is reasonable to believe that a change of frequency has occurred during the past two or three decades, and by studying these to arrive at some clarification of the methodological issues involved.

In order to find a group of mental disorders suitable for this purpose, the Committee members, on the basis of their own clinical experience, made judgments as to which disorders had appeared to them to have shown changes in frequency. There resulted a list of conditions about which there was consensus in the Committee.

In order to refine this list of disorders, a questionnaire was sent to a small number of carefully selected senior psychiatrists* who had been in practice in the same locale for the past two or three decades. The questionnaire requested the judges to indicate the degree of change, if any, in each of the disorders, and to add any other disorders to the list which, in their opinions, have shown change in frequency.

Having thus narrowed the list of disorders, a search of the U.S.A. psychiatric journals of the past fifty years was carried out in order to seek confirmatory evidence of change in the selected list as reflected in the writings of psychiatrists. Textbooks published at different times during this period were also scanned in order to determine if changes in the frequency of disorders were reflected in the amount of attention and space devoted to them.

Finally, those disorders were selected for final consideration which appeared to have the highest probability of having changed, and which thus provided the best illustrations of the problems of estimating change.

The examples chosen include a range of disorders exemplified by pellagra and endemic cretinism in which change in frequency could clearly have been expected to occur because of the identification of causative agents and the institution of remedial practices stemming from their identification. At the other end of the spectrum are such disorders as conversion hysteria and neurocirculatory asthenia. These represent disorders in which the problem of estimating change in frequency is complicated by cultural factors, as well as by fashions in diagnosis and change in nomenclature. Representative of a middle range of problems are syphilitic psychoses and postencephalitic disorders in which changes in frequency may reflect changes in the natural history of the disease itself.

The list of disorders selected for consideration is therefore not all-inclusive but is rather illustrative of the complex system of relations between disorder, patient, society, and physician which interact to produce an altered frequency of manifestations. Certain manifestations of disordered function such as the psychosomatic group, juvenile delinquency, and divorce were excluded for various reasons. Some, such as divorce, while offering substantial statistical evidence for study, offer problems at other levels of complexity. The psychosomatic group presents problems due to lack of reliable base line studies and because there is considerable contemporary controversy over the nature of the disorders themselves which would tend to interfere with the teasing out of specific problems in pure culture.

After making the final selection of illustrative disorders, the available evidence in each instance was assembled and examined in order to investigate the degree of certitude with which a judgment about change in frequency of different mental disorders can be made, and in order to analyze possible causes of such change. As had been hoped, this examination led to the emergence into clear focus of many examples of the theoretical and methodological problems which are the central interest of this report.

---

* The Committee gratefully acknowledges the help of the fifteen colleagues who responded to the questionnaire.
IV. DISCUSSION OF FINDINGS

Eleven illustrative disorders* were chosen for examination. Each of these offers an opportunity to explore particular problems of varied complexity. The disorders will be discussed here in an order which is intended to lead to a progressive analysis of the major issues involved. The following is a list of the disorders and of the major methodological problems illustrated by each.

A. Summary of Problems

1. Conversion Hysteria. Discussion of our study of this condition illustrates the difficulties arising from problems of diagnosis and disagreement regarding nomenclature. It also illustrates the problems of estimating changes in frequency of a condition about which there are no statistical data.

2. Syphilitic Psychoses. Our study of this condition illustrates the use of mental hospital first admission rate statistics and also mortality statistics. These appear fairly adequate in showing changes in the frequency of syphilitic psychoses, but they are not adequate as a means of uncovering the reasons for this change. Despite accurate diagnosis and unchanging nomenclature the mental hospital figures do not completely or necessarily reflect the extent of syphilitic psychoses in the population. This section indicates the need for studies of controlled populations of treated and untreated syphilis in order to give definite answers to the basic question of the reason for a change in frequency.

3. Psychoses of the Aged including Arteriosclerotic Psychoses. The study of these conditions illustrates the use of age specific first admission rate mental hospital statistics. The use of the concepts of incidence and prevalence in their relationship to problems of changes in frequency is illustrated. The section also affords an opportunity of discussing the effect on mental hospital statistics produced by changes in administrative policies and by changes in community attitudes and social policies.

4. Psychoses associated with Pellagra. The study of this condition shows that where diagnosis and nomenclature present no great problem, mental hospital first admission rate statistics and mortality statistics afford satisfactory evidence regarding changes in frequency. This section also illustrates how a major change in the frequency of a psychiatric condition has been brought about by nonspecific public health intervention which has led to an improvement in the eating habits of large populations.

5. Deliria with Pneumonia. The study of this condition reveals some of the problems of computing illness rates in total populations when such rates cannot be derived from mortality statistics. Despite the existence of countable data in general hospital records, little reliable information can be obtained about changes in the frequency of this condition. This section points to the advantages of intermittent surveys rather than a continuous reporting system.

6. Alcoholic Psychoses. The study of this condition shows that alcoholics may be found in many different settings. The discussion points to the need for a comprehensive recording and reporting system. Problems of definition and diagnosis are highlighted, as well as problems of nomenclature. In this condition the social definition of a "case" may be different from the medical definition. A difficult judgment is involved in order to decide when the normal and socially successful use of alcohol becomes pathological. It appears that the consumption of a potential pathogen is not the basic problem but that the crucial factor in determining changes in frequency of alcoholic psychoses relates to changes in patterns of consumption and in attitudes towards alcohol. The discussion of this condition also illustrates how alterations of public attitudes affect data collection and knowledge of the frequency of the condition.

7. Cretinism. The cause of endemic cretinism is known and adequate tests for definitive diagnosis exist. Yet we have no reliable statistical figures upon which to base a judgment regarding changes in its frequency, mainly because we still have no adequate methods for reporting and recording morbidity rates in a population. Our confident judgment that this condition has decreased in
frequency is based mainly upon the opinion of clinical judges and
upon the inference that we have successfully prevented the condi-
tion because we have adequately counteracted a known etiological
factor of this type of cretinism. This section illustrates the special
problems of preventive activities and population appraisals in re-
gard to a condition in which only small numbers of cases are
involved; and also the importance of sub-classification of a disorder
into specific categories.

8. Post-encephalitic Encephalopathy. The study of this con-
dition illustrates the value of mortality statistics and also the need
for collaboration among virologists, epidemiologists and psychi-
atrists.

9. Bromide Psychosis. This is a condition in which there are
objective methods of diagnosis and in which more effective treat-
ment and even complete prevention would be possible if current
knowledge were fully exploited. Our knowledge of the frequency
of this condition is inadequate but could be improved if we set up
better reporting systems in general hospitals and better control
and coordination of hospital records. The discussion of Bromide
Psychosis illustrates how studies of the frequency of a mental dis-
order and also possibilities of more effective preventive programs
could be improved by altering regulations on the control of drugs.

10. Neurocirculatory Asthenia. This section illustrates how
difficult it may be to determine whether apparent changes in the
frequency of a disorder may be due to alterations in the occurrence
of the condition or to changes in the conceptual definition of the
disorder by psychiatrists. The discussion also focuses on the influ-
ence of medical culture on the presenting picture of a disease.

11. Psychoneuroses with Diffuse Anxiety as the Primary Mani-
ifestation. The study of this condition illustrates the problems of
residual categories in diagnosis and the artifact of judgments about
a diagnostic "entity" on which consensus can be obtained as long
as it is not defined.

B. Discussion of Findings in Illustrative Disorders

(1) Conversion Hysteria

Conversion hysteria ranked high on the list of conditions about
which our colleagues were most certain in estimating a change in
frequency. Of the fifteen judges, fourteen estimated that this condi-
tion had decreased in frequency over the past two to three decades.

Our review of the literature showed a marked decrease in pa-
pers on the topic of conversion hysteria between 1910 and 1926.
There has been no significant change since 1926. This implies a
lessening in the concern of the psychiatric profession with the
subject of conversion hysteria, which parallels the fall in frequency
reported by our judges; although it may also be due to changes
in fashion within the profession. No clear statements have been
found in the textbooks pointing to changes in frequency of conver-
sion hysteria during this period.

No statistical evidence has been uncovered upon which a deci-
sion regarding the frequency of this condition can be based. Mor-
tality rates are of no help, since conversion hysteria is not a
recognized cause of death. However, some hysterics do commit
suicide when a suicidal gesture accidentally succeeds, and some
conversion paralyses lead to immobilization in bed and pressure
sores or hypostatic pneumonia. These sometimes lead to a fatal
outcome. Conversion hysteria is not listed in mental hospital statist-
ics. No general hospital was found which has maintained reliable
figures in all its departments on this condition over the past two to
two decades. Some believe that cases of conversion hysteria
are frequently present nowadays in general hospitals without com-
ing to the attention of the psychiatric staff. There is an impres-
sion that these cases, which 20 years ago were treated by the psychi-
atrists, now go to other services in the hospital, perhaps with other
diagnoses.

From our own experience and from discussions with other
specialists, it seems reasonably certain that there has been a smaller
decrease in the frequency of conversion hysteria among people of
certain subcultures and socio-economic classes than others. It is
felt that the consensus among the judges in favor of a decrease in
frequency probably relates to a decrease among the educated peo-
ple who make up a significant proportion of the regular clientele
of psychiatrists in private practice.

We conclude, therefore, that over the past few decades psychi-
atrists are seeing fewer such cases with this diagnosis. This may
well be due to a decrease in the frequency of this condition among
the middle and upper socio-economic classes in the "culturally
sophisticated" parts of the country where most of our colleagues
practice. It seems impossible on the basis of current evidence to arrive at a judgment about changes in the population as a whole. As has been suggested, there is a diagnostic problem. Cases which some of the older diagnosticians would have called conversion hysteria might today be classified as schizophrenia with conversion symptoms. We do not know whether the clinicians who answered the questionnaire were referring to all cases in which they made a diagnosis of conversion mechanism or were giving us a judgment regarding only those cases in which no other diagnosis was made.

Some doubt remains as to whether the decreases in the educated classes relate to the syndrome of conversion hysteria as a whole or to certain of its manifestations—particularly hysterical paralyses. The questionnaire asked our judges about “Conversion Hysteria” and did not specify “Conversion Symptoms.” It must be pointed out that whereas the dramatic publicly visible symptoms such as paralyses, disorders of movement, and losses of sensory function appear to have lessened, it is doubtful whether the more private hysterical conversion symptoms such as frigidity or vaginismus have lessened to the same extent, if they have lessened at all.

How might it be possible in the future to obtain more reliable data upon which to base a judgment regarding changes in the frequency of this condition? It is clear that in order to obtain a meaningful answer, the question must be more narrowly defined. Thus, it seems that judges should be asked whether the following have altered in frequency and the extent of the change in each category: (a) publicly revealed hysterical conversion signs and symptoms such as paralyses of limbs, or loss of special senses, or disorders of movement or posture, or large areas of anesthesia on trunk or limbs; (b) hysterical conversion symptoms of a subjective nature such as pains or strange sensations; (c) hysterical conversion symptoms characterized by alterations of consciousness such as amnesia and fugue states; and (d) hysterical conversion symptoms of a private nature such as impotence, frigidity, and vaginismus. Furthermore, the judges might be asked to say, if they can, whether they believe the changes in frequency have affected all their patients equally, or whether the changes are more marked in relation to the degree of cultural sophistication of patients. If, in addition to judges from advanced urban areas, it were also possible to include on the list some judges from rural and less sophisticated parts of the country, it might also be possible to get clearer information about differential changes in relation to the culture of the population. Comparative studies in other countries would be helpful.

Consensus of clinical judges is not an altogether dependable method for obtaining data on changes in frequency of a condition like conversion hysteria. Statistics of departments of psychiatry in general hospitals, or of mental hospitals, would also not be suitable since many patients with this illness do not go for treatment, and the proportion who do will undoubtedly vary from time to time. If the statistics were extended to include all other departments, and if the diagnosis of conversion hysteria in its various forms were clearly defined and communicated to the non-psychiatric physicians, there would be greater coverage. But again the proportion of patients in a community who suffer from hysterical conversion symptoms and go for treatment to these agencies is likely to vary in in calculable ways from time to time in response to a multitude of factors of custom and agency policies. Moreover, the population from which each hospital department draws its patients will vary in size and will alter with the passage of time; therefore, increases or decreases in the number of patients attending may reflect changes in the size of the surrounding population who patronize the hospital and not changes in the proportion of the population suffering from conversion hysteria. It is presumably this proportion that we are interested in when we talk about alterations in the frequency of an illness with the passage of time.

A better way to obtain more reliable data is to utilize the experience of epidemiologists in surveying total populations or known samples of population at specified intervals. Such surveys would identify the presence and number of cases of conversion hysteria of different types and the basic ecology of the population, i.e., the numbers of people of different age, sex, and socio-economic status, etc., or would be carried out in populations in which these data had already been established. This is a formidable undertaking from the point of view both of expense and of the organizational and technical problems involved, but little short of this will produce information much more dependable than the Committee has already assembled.
If we now turn to the possible causes for the decrease in frequency of florid conversion hysteria in certain segments of the population which seems probable on the basis of present evidence, the following considerations emerge:

Among educated people, there is nowadays greater sophistication in regard to the psychological basis of conversion hysteria. In the past it was possible for a patient to hide from himself and from others a symptom which was an irrational solution of an emotional conflict. This is no longer easy or perhaps even possible. This insight is incompatible with the lack of self-awareness which is necessary for the operation of defenses of repression and conversion. In the past a conversion symptom was treated with indulgence by others and was a source of secondary gain to the sufferer. Today it draws negative sanctions from most educated people; and the unsympathetic environment inhibits its formation or cuts short its course. These attitudes toward conversion symptoms, which are viewed as manifestations of psychological weakness, contrast with current attitudes toward psychosomatic symptoms, which are viewed more indulgently. There is quite a different attitude toward a person suffering from a gastric ulcer and a person who develops an hysterical paralysis. One is usually seen as an unfortunate medical condition, and the other as a sign of escape from reality.

Another factor which may have influenced the probable decline in frequency among persons of different subcultures is that educated persons and their children know more today about sexual matters and discuss these topics more freely than twenty or thirty years ago. This means that the sexual conflicts which predispose to conversion symptoms are not kept out of consciousness as much as previously. It appears that these changes in attitudes about sexual matters have occurred mainly in the more sophisticated sections of the community.

So far the factors which have been touched upon appear to have reduced the frequency of conversion hysteria by lowering its incidence; that is to say, the proportion of a population which develops this illness for the first time during a specified period. The frequency with which cases of conversion hysteria are encountered in clinical practice is also based upon the prevalence of the condition, the proportion of the people in a community who are suffering from the condition at any one time. In addition to factors which may have lowered the incidence of conversion hysteria among educated people, it would appear likely that more rapid and more accurate diagnosis as well as quicker and more effective treatment techniques may be reducing the duration of these cases. Greater psychiatric sophistication among general physicians means that many are probably treating such cases effectively without referral to psychiatrists. However, there is no definite evidence that their treatment is proving effective in shortening duration and therefore lowering prevalence. But if general practitioners are handling these cases, psychiatrists may be seeing fewer of these patients and therefore get the impression that they may be occurring less frequently.

(2) Syphilitic Psychoses

In responding to the questionnaire there was a more definite consensus regarding syphilitic psychoses than any other diagnostic group. Twelve out of fifteen expressed an opinion, and all agreed that there had been much decrease.

The review of journal literature topics revealed a dramatic decline in relative attention to syphilitic mental disorders. The textbooks agree.

Statistical data bearing on the time trends in the occurrence of syphilitic psychoses are available. Admissions to mental hospitals have shown a decreasing first admission rate for syphilis during the past decades despite the fact that over-all first admission rates have been rising during the same period. Reported first admission rates from a particular disorder could decline because of declining use of mental hospitals for this condition, or because of changing diagnostic standards or alertness. It is judged, however, that the decline in syphilitic first admissions to mental hospitals in recent decades is a reflection of a decreasing incidence of central nervous system syphilis with psychoses.

Death rates from central nervous system syphilis have also shown a decline during this period.

It is therefore concluded that there has been a several-fold decline in the incidence of psychoses with central nervous system syphilis in the United States during the last several decades.

This decline is due mainly to the discovery of effective methods of treating syphilitic infection at any time between the date of
infection and the onset of the tertiary stages of syphilis. Another contributing factor is the development of efficient social machinery to insure that a very large proportion of those who have contracted this infection have received sufficient treatment in time to prevent the development of the tertiary stages. It cannot be attributed to a reduction in the incidence of primary syphilitic infection, since the evidence for such a reduction is at best uncertain, and at worst indicates an actual increase in the rate of infection. The widespread application of early diagnostic and effective treatment techniques required radical shifts in public attitudes toward education and propaganda materials regarding the nature of syphilis, its mode of spread, and the necessary conditions for treatment. It was not until the early 1930's that "venereal disease" could be mentioned in radio broadcasts, after U.S. Surgeon-General Thomas A. Parran set a courageous precedent; and there was, initially, considerable resistance to the spread of information through the school systems. Many public and voluntary health agencies expended large sums of money initiating and executing this preventive program.

These programs have not yet been effective in exterminating all cases of tertiary syphilis, although it is a much smaller health problem than it was a few decades ago.

The decline in this disorder's occurrence illustrates the value of clinical, laboratory, and epidemiological research, when their results are seized quickly and efficiently by modern public health organizations. Despite the delicacy of the subject and widespread taboos on discussions involving the mode of spread; despite patients' unwillingness to have the nature of their illness disclosed; despite the resistance manifested by attending physicians to report the infection in their patients; despite the fact that for decades the only effective treatment was expensive, painful and long drawn out with results uncertain and problematic; despite all these obstacles, ways were found for effectively organizing measures which led to sufficiently early case finding, sufficiently accurate diagnosis, and sufficiently effective treatment to lead us to our present happier state.

It is perhaps instructive to step back for a moment and ask ourselves about the nature of the information which we would ideally like to have regarding the frequency of syphilitic psychoses—about which we have expressed such certainty. We would like to know, presumably, (1) how frequently such illnesses occurred in previous decades in a large population, (2) how frequently they are occurring today in a comparable population, and (3) that those who were treated in the early phases of illness had developed psychoses less commonly than those with untreated syphilis. We have but fragmentary information on the first point and no really comparable information on the second. A great deal of our assurance is based on the fact that particular physicians know from personal experience that there has been a large change. If the time involved had taken several generations or if there had been a great change in viewpoint regarding the nature of syphilis, we might be far less certain. Systematic surveys of whole, geographically defined populations, done at intervals of time with carefully specified case finding and diagnostic procedures would have strengthened our hands greatly.

On the third type of information, whether treating syphilis reduces the frequency of psychoses, our information is weak. In 1932 Pesare and his colleagues began a study of 410 untreated syphilitics and 201 controls who were non-syphilitic, all over 25 years of age. These populations (or what could be found of them) were examined carefully in 1932, again in 1938, and a third time in 1948. The syphilitics were not treated. Had they been able to follow those cases as planned, and if those who had syphilis had continued untreated (many were lost to the study because they got treatment) we might have some better basis for judging the effects of treatment. They did report psychoses as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Untreated Syphilitics</th>
<th>Non-syphilitic Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1932</td>
<td>Number examined</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychotic</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1938</td>
<td>Number examined</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Psychotic</td>
<td>155</td>
</tr>
<tr>
<td>1948</td>
<td>Number examined</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Psychotic</td>
<td>85</td>
</tr>
</tbody>
</table>

The authors gave age-distributions, but it is clear that no clear-cut conclusions can be drawn because of the attrition in the popu-
lizations, the high prevalence of psychoses in the controls, and other factors. These figures do, however, serve the purpose of indicating that it is not impossible to create mechanisms for keeping track of progress—it is expensive, time-consuming and difficult, but not totally impossible.

Only a small proportion of untreated syphilitics develop neurosyphilis. Gjestland studied 887 out of a total of 2000 residents of Oslo who had been cared for during the period 1891 until 1910 by Professor Caesar Boeck of the Department of Dermatology and Venereology at the Rikshospitalet in Oslo, Norway. Professor Boeck, because of certain theories he held, maintained a strict policy of no treatment for syphilis.

Gjestland carried out a careful and masterful study which represents the best data available on the frequency of neurosyphilis, including paresis, in persons experiencing untreated syphilis. He found that only 6.5% of the total number eventually developed some form of neurosyphilis. Cases diagnosed as general paresis amounted to 3% of 303 men and 1.7% of 584 women.

The above figures illustrate the point that it would not be wise without careful study to infer that the low incidence of syphilitic psychoses at the present time is due entirely to the effective treatment of syphilis in its early stages. Before arriving at this conclusion, it would be necessary to ascertain the incidence of syphilitic psychoses in a group of cases comparable to the above in which effective treatment had been carried out.

Further light has recently been shed by Hare on the possibility that the decline in these psychoses may be due to spontaneous changes in the disease process. He has reviewed a wide range of evidence, including old case records of mental hospitals in England, mental hospital statistics from Europe, U.S.A., and Canada, and the writings of physicians going back to the 15th century. He presents a plausible case for the hypothesis that a mutation occurred in the spirochaete of syphilis in France at the end of the 18th century. The mutant strain seems to have spread to other countries by venereal infection. During the past 140 years the disease has shown a gradual modification in clinical form resulting in an initial rise in severity and prevalence, succeeded by a natural decline in prevalence similar to the pattern during the years following the 15th century epidemic. Hare shows that the trend to reduction in prevalence of syphilitic psychoses was well marked before the introduction of penicillin treatment in 1945.

(3) Psychoses of the Aged Including Arteriosclerotic Psychoses

Psychoses in the elderly are generally thought to be on the increase, and in some state systems have been primarily responsible for the increase in annual admissions to mental hospitals.

Ten of our colleagues expressed opinions on possible changes in frequency of this group of illnesses, and nine indicated that there had been a definite change in the direction of increase. One was uncertain. The members of the Committee were unanimous in their impression that these conditions had been and were on the increase.

The literature survey indicated that no articles devoted to this topic were found during the earlier test years, but that twenty articles appeared in 1955. Increased space has been given to this problem in textbooks of recent vintage as against earlier ones, and most textbooks state that there has been a marked increase in these conditions.

One of the most important factors involved in this increment is the increasing number of people above 65 in the population. According to U.S. census figures there were 3,000,000 such people in 1900; 12,000,000 in 1950; and almost 17,000,000 in 1960.

Based upon these figures alone, it would therefore be expected that the number of people above the age of 65 suffering from psychoses would be increasing. This would be the case even if the proportion of people at each age suffering from psychosis has not increased. In other words, even though the incidence of psychosis of the aged were to remain stationary, the increased population base would lead to an increase in the actual number of patients falling ill with this condition. Improvement in general medical care also has led to increasing the chances of survival of old people, including those suffering from mental disorders. This means that old people with mental disorders who in the past would have died are now being kept alive for longer periods. This leads to an increase in the prevalence of the psychoses of the aged.

Some light can be thrown on the question of whether old people nowadays run a greater risk of developing psychoses than two or three decades ago by studying the age specific mental hospital ad-
mission rates for people above the age of 65. These rates are calculated on the basis of the proportion of a population of a certain age group which is admitted to mental hospitals. These statistics show a clear increase in the rates, which seem to indicate that we are dealing with a possible increased risk of the development of psychosis in the older age group. However, many complicated factors enter into the establishment of these rates so that they do not definitely or necessarily reflect an increase in the frequency of the psychoses in the population. (16,18)

Not all elderly people suffering from psychoses of the aged are admitted to mental hospitals. The proportion admitted will be dependent upon local attitudes about old people and upon the admission policies of different mental hospitals. These will vary markedly from time to time and from place to place. It may well be that the increased admission rate of old people to mental hospitals until recently reflected not an increase in the frequency of psychoses but a decreased tolerance for their maintenance at home or in other institutions. With the increase in nursing homes and other institutions for the aged in the last few years these admission rates to mental hospitals have leveled off in many states.

Another complicating factor relates to the lack of differentiation in most hospital records between functional psychoses in the aged and mental changes produced by organic factors in old people. This differentiation is important because these conditions may vary in etiology and frequency, and different methods of treatment may affect each of them. The diagnosis of arteriosclerosis is made more often at the present time, but whether this reflects improved diagnosis or more conscientious and accurate reporting, or whether it results from a true increase in the incidence of the condition, is impossible to say.

In order to throw more light upon these problems in the future, it will be necessary to improve our clinical diagnosis of arteriosclerotic conditions and also to differentiate different categories of the psychoses in the aged. It will also be necessary to define these clinical entities in such a way that there will be some uniformity in their recognition in different hospitals and by different physicians. There is a need for further clinical and pathological research to correlate brain lesions with patterns of disturbed behavior. These studies should contribute to an improvement in the basis for mental hospital statistics; but as has been previously mentioned, these cannot be relied upon to reflect the true picture of the incidence and prevalence of the psychoses in the community. In order to provide valid information on these points, it will be necessary to carry out surveys of the older age groups of the population at repeated intervals to ascertain age specific incidence and prevalence figures. Such morbidity surveys make it necessary to develop collaborative relationships between epidemiologists and psychiatrists, and to organize multidisciplinary survey teams, perhaps associated either with university departments of psychiatry or with departments of public health. These surveys are likely to yield information which will be useful not only in assessing the efficiency of preventive and treatment services in a community, but will also serve as a guide for psychiatric and public health planning, with particular reference to the community services designed to reflect the magnitude and quality of the problem as it alters over time.

Allowing for the uncertainty which is dependent upon the above arguments, it is nevertheless true that all our current available evidence points to an increase in the frequency of psychoses in the aged which are seen by physicians. This is related to an absolute increase in prevalence associated with the increase in the chances of survival of old people suffering from psychoses. It also seems likely that there is an increase in arteriosclerotic disease and that this contributes its share to an increased incidence and prevalence of mental disorders among old people. It is not as yet clear whether there has been an increase in age specific incidence rates of the psychoses of the aged.

Other factors, unrelated to the disease process per se, which impinge upon the elderly citizen and especially upon the elderly ill person, and which might tend to increase the incidence of mental disorders must be considered. Important among these are the generally hostile social attitudes toward old people nowadays, despite the continuation of positive efforts such as those which have led to the provision of social security services. There is undoubtedly discrimination against old people in housing, at least in urban areas, and this is complicated by the change in social patterns from the extended family to the nuclear family as the basic social unit. These forces contribute in two ways. First, they promote increasing contact with medical and welfare agencies because of the need for
social and economic support. Secondly, to the aged individual the hostile attitude of his environment becomes a source of increased stress, mobilizing within him defensive forces which may easily blend into psychiatric symptomatology which might have remained submerged under more favorable and harmonious social conditions. In addition to the experience of personal rejection, the rejection of skills often leads to enforced idleness which, it is claimed, causes quicker deterioration of integrative forces than would occur on the basis of tissue changes alone. These factors will operate regardless of whether the tissue changes are due to senile degeneration or are secondary to arteriosclerosis.

(4) Psychoses Associated With Pellagra

Ten of the fifteen respondents to the questionnaire regard the condition as much reduced in frequency.

The psychiatric journals were not searched for articles referring to pellagra. Statements in the textbooks regarding changes in occurrence were not located.

Mental hospital admission rates in Tables I and II show a clear decline in first admission rates of persons regarded as having psychoses with pellagra.

Death rates from the nation’s death registration area are not an entirely satisfactory source of data since there is a tendency for states where pellagra was commonest to be the later entrants into the death registration area. However, by 1928 all but Texas, Nevada, and New Mexico were in the area. In that year the national death rate from pellagra was recorded as 6.0 per 100,000 population. This figure dropped to 1.6 by 1940. Such statistics do not indicate how very common this condition was in some places. In the villages studied by Goldberger in 1917 (population 22,653) he and his colleagues observed directly, by visiting the population every two weeks, an incidence of 56 new cases per 1,000 population per year.

The evidence was judged adequate for concluding that a radical decline in the frequency of psychoses with pellagra has occurred during the last four decades. None of the data give a good measure of the extent of this decline. The old records were not made on a sufficiently clear basis, and the present records are not sufficient for forming a good estimate of the incidence of this condition. It is clear, however, that cases do continue to occur. Some of them appear to be psychoses due to pellagra, and others pellagra secondary to dietary insufficiency developed as a complication of prior psychoses.

The mechanism for this decline has probably been in part a social change in living standards and eating habits. This change was accelerated, at least in this country, by the demonstration by Goldberger and his associates of the nutritional origin of the pellagric syndrome by a series of epidemiological studies. It is noteworthy that the condition became a relative rarity before the exact nature of the nutritional deficiency was elucidated. This fact illustrates the principle that effective preventive measures are not always based on detailed knowledge of precise agents and exact mechanisms by which diseases are produced.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER</th>
<th>RATE PER 100,000 POPULATION</th>
<th>PERCENT PELLAGRA CASES OF ALL DIAGNOSES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Admissions</td>
<td>Resident Patients</td>
<td>First Admissions</td>
</tr>
<tr>
<td>1920</td>
<td>19</td>
<td>24</td>
<td>1.13</td>
</tr>
<tr>
<td>1922</td>
<td>49</td>
<td>23</td>
<td>2.88</td>
</tr>
<tr>
<td>1924</td>
<td>57</td>
<td>35</td>
<td>3.35</td>
</tr>
<tr>
<td>1925</td>
<td>50</td>
<td>27</td>
<td>2.95</td>
</tr>
<tr>
<td>1933</td>
<td>48</td>
<td>24</td>
<td>2.45</td>
</tr>
<tr>
<td>1935</td>
<td>27</td>
<td>20</td>
<td>1.56</td>
</tr>
<tr>
<td>1941</td>
<td>21</td>
<td>20</td>
<td>1.12</td>
</tr>
<tr>
<td>1942</td>
<td>12</td>
<td>9</td>
<td>0.75</td>
</tr>
<tr>
<td>1943</td>
<td>5</td>
<td>6</td>
<td>0.28</td>
</tr>
<tr>
<td>1944</td>
<td>2</td>
<td>2</td>
<td>0.11</td>
</tr>
<tr>
<td>1945</td>
<td>4</td>
<td>4</td>
<td>0.22</td>
</tr>
<tr>
<td>1946</td>
<td>0</td>
<td>1</td>
<td>0.00</td>
</tr>
<tr>
<td>1947</td>
<td>1</td>
<td>1</td>
<td>0.05</td>
</tr>
</tbody>
</table>

1 Population sources:
In addition, it is clear that at least in this instance, reduction in the mental morbidity of populations obviously could occur without the intervention of psychiatrists. With pellagra, the search for knowledge was sparked by public health agencies. The nature of the knowledge gained was distributed both automatically through the normal channels of communication in our culture and through planned campaigns. Furthermore, social changes stemming from forces which no group could have specifically engendered were sweeping away the cultural and economic foundations of the pellagra diet. The great discoveries regarding the nature of pellagra merely hastened that process, but they saved many persons from years of psychosis and from premature death.

The volume of the problem prior to its conquest is one of the most accurately measured phenomena in the history of research in mass morbidity. Goldberger and his team studied the lives and the medical condition of their southern mill villages with a breadth of vision and care for techniques which are the envy of thoughtful field investigators. Our information is weak at the psychiatric end. This opportunity to do careful research was missed and will never occur again.

It is of some interest to note that our knowledge regarding the present rarity of this condition is based on diffuse sources of information and cannot be related to comparable careful inquiries. We are satisfied by an inference from the assumption that if pellagra were at all common it would be recognized and reported. This assumption is strengthened by the fact that pellagra is sometimes reported from our mental hospitals and this leads us to think that the physicians would recognize other cases if they were occurring.

No psychiatric morbidity surveys have been found which report any cases of pellagic psychoses, and this is explained by the fact that no such surveys have been done in communities known to have pellagra.

(5) Delirium With Pneumonia

Nine of those who replied to the questionnaire agreed that there had been much decline. One said no change; the others expressed no opinion.

Pneumonic deliria were not specifically tabulated in our review of the literature. Articles on contagious diseases as a whole declined. No evidence is available from analysis of text books.
Death statistics showed a marked decline in pneumonia deaths from 93.2 per 100,000 in 1936 to 26.8 per 100,000 in 1956. These mortality rates suggest that pneumonia, as a cause of death, has declined in the United States.

Morbidity data regarding pneumonia infections are not readily available. Statistical evidence regarding pneumonic deliria has not been located, and the decline of this condition, while conceivable, is the least well documented in our material.

Various sources of information indicate that pneumonia has become more manageable in the past twenty-five years, and that in conjunction with a decline in mortality rates there has been a decline in the incidence of pneumonic deliria. No judgment is made as to whether or not there has been a change in the incidence of pneumonia as such.

It is presumed that the mechanism by which this reduction in the occurrence of pneumonic deliria has been accomplished is the widespread use first of sulfa drugs and later of antibiotics in the treatment and early resolution of cases of pneumonia. Since this change has occurred within the period of our own professional careers, our personal clinical experience can be called upon for substantiation.

It is not objective data which has convinced us of the decline of this toxic delirium: we have only the poorest type of data. Our best statistical data have to do with mortality, which since the days of Graunt, have greatly improved in informing us of the causes of death in large populations through routine reporting mechanisms. In general, however, morbidity which does not lead to death is much more poorly understood in its mass phenomena, and we have few mechanisms for keeping track of such events in our populations. Hospitalization data are useful for many illnesses and the reports of general hospitals can be used to tell us something about the occurrence of lobar pneumonia. But as our techniques of treatment improve, and more and more cases are treated without recourse to hospitalization, these data become less reliable and reflect a smaller proportion of the total occurrence.

Thus the history of mortality statistics has produced a tendency to look for mechanisms of routine reporting, such as hospitalization records, to give us our best data. However, routine reports when they are not associated with an overriding administrative issue (such as death) are extremely difficult to maintain. Continuous reporting of events, when such reports make little difference, is an unwelcome burden upon the clinician. To avoid this problem the technique of the short-term sample survey of selected medical practices has been started in some places. It is also possible to get a small number of especially interested practitioners to cooperate over long periods of time in reporting their clinical experience or to agree to keep careful records and let investigators study the morbidity experience of the populations they serve. Morbidity surveys of geographically defined populations have tended to ignore certain categories of people who are away from home and in hospital, and, hence, miss the kind of information which would be most helpful. Actually, intermittent morbidity surveys of arbitrarily defined populations, which include all individuals on a given day or days, would give us the best kind of information for the kind of question posed by the apparent decline in pneumonic deliria.

(6) Alcoholic Psychoses

Very little can be said with certainty about changes occurring in the frequency of alcoholic psychoses.

The majority of consulted authorities have the impression that alcoholic psychoses are decreasing in frequency; but all differ in their judgment of the degree of decrease.

If the literature in the field were to be used as an index of frequency of alcoholic psychoses, it might be interpreted that concern and possibly frequency are increasing. It is common knowledge that many more organizations than formerly are actively concerned with alcoholism. However, there is little real increase in research per se. Our review of textbooks of the sample periods also shows an increase in allotted space and concern with these psychotic states.

A third source of information pertaining to the extent of alcoholic psychoses is the number of first admissions of patients with alcoholism to state mental hospitals. The data available show that for the United States there was an increase in the absolute number of first admissions with alcoholism from approximately 6,000 in 1945 to about 15,000 in 1956. These data include ad-
missions to county hospitals from 1954 on. Prior to 1953, first admissions with alcoholism were divided into two categories: alcoholism with psychoses increased from about 3,000 to approximately 4,500, while alcoholism without psychoses increased from 2,510 to 6,256. In 1953 new categories for first admission patients with alcoholism were established: Acute Brain Syndrome with Alcohol Intoxication, Chronic Brain Syndrome with Alcohol Intoxication, and Sociopathic Personality Disturbance—Alcoholism (addiction). Even if the data were adequate, the time period—1953 to 1956—would be too short to reflect a trend. However, first admissions in the category Acute Brain Syndrome with Alcohol Intoxication showed a slight increase from 2,533 in 1953 to 2,574 in 1956; the final category, Sociopathic Personality Disturbance—Alcoholism (addiction), shows an increase from 7,068 in 1953 to 9,653 in 1956.

Three difficulties inherent in these data preclude firm generalizations. First, the shift in diagnostic categories disrupts any trend pattern which might be present. Second, within the accepted categories there is no diagnostic consistency from hospital to hospital or state to state, e.g., in one hospital the diagnosis may be “Schizophrenia, manifested by hallucinations, personality disintegration, . . . and alcoholism,” in another hospital the diagnosis may be “Chronic Brain Syndrome with Alcohol Intoxication.” If, however, in a rough way alcoholism with psychoses can be equated with acute and chronic brain syndromes with alcohol intoxication, then these data may permit one tenuous generalization. From 1949 to 1956, between 3 and 4 out of every 10 first admissions with alcoholism to state mental hospitals would fall in the category of alcoholism with psychoses. Third, as has been previously emphasized, hospital admissions do not reflect incidence, or prevalence; rather they reflect current community attitudes and policies in regard to hospitalization.

The tenuousness of the above generalization is obvious when it is realized that data from (1) veterans hospitals, (2) private alcoholism hospital facilities, (3) some alcoholic wards in public hospital facilities, (4) general medical hospitals, (5) jails, and (6) other community facilities, such as Alcoholics Anonymous are not included. These exclusions mean, of course, that the number of first admissions with alcoholism to institutional care may be grossly underestimated. Relevant sociological data are also unavailable, e.g., age, ethnic background and socio-economic status. Further, there are the uncertainties of applying similar meanings to the diagnostic categories over a period of time in the various reporting hospitals. For these and other reasons it is hazardous to place any significance to these data for purposes of establishing changes in frequency of alcoholic psychoses.

The three kinds of information about changes in the frequency of alcoholic psychoses are, if not contradictory, demonstrably unreliable. The consulted authorities have the impression that these diagnoses are decreasing. The literature reflects extensive interest in alcoholism and associated problems. Finally, the statistical data are sufficiently unreliable so as to preclude any firm generalizations about trends or rates of change.

Mention should be made of another source of data—the application of Jellinek’s formula. This is a method of calculating the prevalence of alcohol addiction from the number of deaths from cirrhosis of the liver reported in any community. The continued use of Jellinek’s formula has been reflected in the increasing prevalence estimated and quoted in many official reports. However, Seeley points to the inadequacy of an estimate of alcoholism that uses autopsy rates of cirrhosis of the liver. New methods are definitely necessary.

In recent years there has been a change in public and medical attitudes toward alcoholism. Attempts to conceal alcoholism have become less common. Any increase in alcoholism rates may, therefore, be simply the results of more accurate reporting.

It may be that proportionately fewer cases of alcoholic psychoses are seen now than before, in spite of the fact that there seem to be as many problem drinkers. On the level of primary prevention, general improvement in nutrition and general medical care may be reasons. Fewer cases of chronic alcoholic psychoses may be seen as a result of the general raising of educational levels, the use of fortified foods, and so forth. Improved treatment methods of acute alcoholism states, along with the use of vitamins, tend to help on the level of secondary prevention. For example, fewer cases of extreme delirium tremens are being seen. Prompt and improved treatment seems to bear fruit.

Despite the fact that no clear conclusions can be drawn about
the frequency of alcoholic psychoses from this review, there is no doubt that these conditions represent a major problem in the public health and psychiatric field in this country. It is surely necessary for better information to be collected in the future than that which is at present available. In order to ensure this, the following steps are necessary: first, diagnostic terminology and definitions which are likely to be acceptable to most workers in the field must be developed and widely communicated. Unfortunately, any further changes in nomenclature will complicate comparisons of the frequency of the conditions over time, as has already happened in the past. Second, increased control and centralization of reporting by all sources dealing with alcoholics would be advantageous, as well as universally accepted standardization of data collection. It should be superfluous to emphasize here that, as in all such research in the neuro-psychiatric field, adequate safeguards must be maintained for the preservation of the confidentiality of the information. Third, the complexities of any system of data collection and reporting by administrative and legal differences involved in the treatment of alcoholics must be constantly documented and taken into account in the analysis of the data. Finally, as has been mentioned previously, no reporting system of admission or treatment rates by institutions is likely to afford more than a partial view of the incidence and prevalence of alcoholic psychoses in the population at large. In order to obtain data from which these rates may be calculated it will be necessary in these conditions, as in regard to other conditions which have been mentioned already in this report, to conduct repeated morbidity surveys of sample populations over long periods of time. These surveys will demand the effort of specially trained epidemiologists, psychiatrists, and statisticians. The recruitment and training of these specialists as well as the provision for their operations within the framework of the mental health and public health services of communities are prerequisites for any real advance in regard to the solution of the problem.

(7) Cretinism

Ten of our questionnaire respondents were "not certain" from their own clinical experience whether or not cretinism had decreased in frequency. Two judges felt there had been "much change" in frequency and three others rated the decrease in frequency as "little change." No judge selected this category for special comment. The search of the literature reflected little interest in this topic. The review of psychiatric textbooks was of little help in supporting a common opinion of decrease in frequency of cretinism.

We have no adequate statistical evidence of the decline in frequency in cretinism as reflected in mortality rates, hospital, admission rates, census data, special studies, or other sources.

Tarjan remarks that "epidemiological questions pose a big problem because of the inaccuracy of estimates over a 50-year span or smaller length of time." Approximately 30 cretins were seen at his institution during the last 3 years which represents about 1% of the patient population. None of these cretins is of the endemic type.

Our members' individual experience with cretinism is highly restricted. The only reason we believe that there has been a decrease in the frequency of cretinism is the presumption that the use of iodized salt has been effective in reducing the incidence of endemic cretinism. We have no reason to believe that other forms of congenital hypothyroidism have become less common.

Mosier says, "I believe most would agree that endemic cretinism has largely disappeared in the United States and this has been due to the use of iodized salt. Undoubtedly, there may be some elderly cretins still alive who may have been endemic, but because of the nearly universal use of iodized salt in the United States, it is unlikely that one will see new cases of cretinism due to iodine deficiency. Sporadic cretinism, either of the athyrotic or goitrous variety due to an inborn enzymatic defect in thyroid hormone biosynthesis, probably occurs at the same rate as it did 50 years ago. A report by Sir William Osler, in 1897, listing a group of sporadic cretins, showed that approximately 90% of these were athyrotic and 10% of the goitrous variety. The same percentage is found in the distribution of these cases today. Rarely cretinism has been produced by I²³¹ (radioactive iodine) radiation damage to the fetal thyroid and by other goitrogen administration to the mother during pregnancy. The rarity of these cases presents an epidemiological problem."

New techniques for early diagnosis and treatment have become available, the most important of which are P.B.I. (Protein Bound Iodine) determinations and the use of tracer doses of radioactive iodine (I²³¹) to measure thyroid uptake.
Cretinism is one cause of mental retardation for which a satisfactory treatment is available if the diagnosis is made by the 4th month or earlier. A preventive program has to focus on these first months of infancy. Experience suggests some leads: after the birth of one cretin in a family, all subsequent births should be studied carefully for cretinism; there appears to be a more frequent occurrence of non-endemic cretinism in fraternal twins which may warrant special attention to this type of birth; massive thyroid given to the mother during pregnancy has been shown to prevent cretinism in at least one instance.

The greatest diagnostic problem exists with the infant with minimal functioning thyroid tissue, adequate for fetal needs in utero so that a normal physical appearance is present at birth. But cretinism develops rapidly after birth when metabolic needs increase. The use of P.B.I. determinations and I$^{131}$ uptake measurements when necessary for all clinically suspicious infants is indicated.

Effective use of these technics may diminish the prevalence of nonendemic cretinism by establishment of an early diagnosis. However, institutions for the mentally retarded report increasing duration of life of patients with various forms of mental subnormalities. This would have the effect of increasing the prevalence by lengthening the duration of uncorrected cases of cretinism. We know of no way of estimating what is the net effect of these opposing trends.

The data we would like to have for future estimates are: systematic spot checks on P.B.I. in selected samples of the infant population; and a comprehensive roster of all school-aged children not in school, with the records of the illnesses which prevent them from going to school. These rosters will provide better sources of information regarding changes in prevalence. It is worth emphasizing that although we know the causes of cretinism and have adequate tests to make a reliable diagnosis we do not at present have reliable figures upon which to base any certain conclusions about changes in its frequency—even though we have successfully initiated and maintained large scale prevention programs by the use of iodized salt since the 1920’s. One obstacle to the introduction of case-finding programs is the relative rarity of the sporadic condition, which reduces the motivation of communities to spend the necessary money. It should be noted, however, that damage can be minimized if treatment is started before four months of age.

(8) Post-Encephalitic Encephalopathy

Ten of the fifteen respondents to the questionnaire agreed that there had been much change, differing somewhat among themselves as to how much reduction they thought they had witnessed.

In surveying the literature it was found that while 7.4% of the articles in the selected journals in 1924-1927 dealt with infectious diseases, in the 1953-1956 period less than 1% of the articles dealt with this topic. These figures exclude syphilis but include articles having to do with infectious disease problems in mental hospital populations. Tabulations were not made specifically for postencephalitic encephalopathy.

Death statistics before 1920 did not include a special category of lethargic encephalitis, but have since then. Prior to 1920, such cases were included in the more general category of “diseases of the nervous system, encephalitis.” This category which had been a reported cause of death at a rate of less than 1 per 100,000 in the immediately preceding years, rose to 1.5 in 1919 and 2.4 in 1920. In 1921 the new category, “lethargic encephalitis” was assigned 1.5 deaths per 100,000 population, and this figure had the following values in the subsequent years: 1922, 1.3; 1923, 2.0; 1924, 1.4; 1925, 1.6; 1926, 1.4; 1927, 1.2; 1928, 1.2. By 1939 the name had been changed to “acute infectious encephalitis (lethargic)” and its value was 0.6.12

A careful search of mental hospital and state school statistics could be made from annual reports of the various state departments of mental hygiene. Since such statistics would not differentiate between Von Economo’s and other viral causes of encephalitis including possible mutations of the 1918 virus, no further conclusions regarding this condition could be drawn.

Nevertheless, the evidence indicates that Von Economo’s encephalitis gave rise to a particular psychiatric syndrome, and that since the original epidemic after the first World War there has been no recurrence of new cases of Von Economo’s encephalitis. There is general agreement that certain other viral infections of the central nervous system can cause similar psychiatric pictures, but they are at present a relatively rare phenomenon compared to the postencephalitic cases seen in the 1920’s and 1930’s as residuals of the epidemic of lethargic encephalitis. However, similar viral pandemics
may recur in the future, and it is hoped that epidemiologists trained in mental health will be ready.

(9) Bromide Psychosis

Four of our fifteen judges stated spontaneously that bromide psychosis has definitely decreased as a clinical entity.

A review of the literature on bromide intoxication revealed a consistent interest. Statements about bromide intoxication in psychiatric textbooks appear less frequently than 20 years ago. The general inference is that the authors of textbooks regard this as a clinical entity of decreasing importance and frequency at the present time.

Morbidity statistics were sampled in the state of Michigan. Information was found available only in hospital records and was not consolidated centrally by health agencies. The Detroit Receiving Hospital, which is the emergency hospital of that city, reports 2 admissions with a diagnosis of bromide intoxication in 1943, 7 admissions in 1952, and 8 admissions in 1957.

On the basis of this evidence it remains questionable whether there has been any decrease in this entity. Nevertheless, there is full agreement that bromide intoxication exists with sufficient frequency that it deserves more attention in psychiatric textbooks.

The prescription of bromide medication by the medical profession has sharply decreased in the past twenty years with the introduction of hydantoin derivatives in epilepsy, the greater range and specificity of the barbital compounds, and, more recently, the introduction of the ataractic drugs. However, countering these factors is the easy availability of bromide drugs. Many proprietary drugs containing bromide are freely available without prescription. They are advertised in lay publications. The result is a continued significant public use of bromides by self-medication with the “patent medicines.” It is clear that adequate control of the manufacture and sale of all bromide-containing pharmaceuticals would aid epidemiological studies.

We must conclude that bromide intoxication continues to be a psychiatric entity with a low continuing preventable incidence. We have not found evidence which differentiates reports of bromide intoxication from bromide psychosis, so we are unable to make any separate statement about the latter condition.

Numerically these conditions are of no great importance, but they do constitute an example of illnesses of known causation in which it is possible to make a reliable diagnosis, and which can be adequately prevented and treated. Yet bromide psychoses are reported so inadequately that no valid estimate of frequency can be made. The absence of such figures clearly hampers the planning of control programs, such as for example, legislation to prohibit the use of bromides without medical prescription. Although hospital statistics can give no basis for calculating incidence and prevalence rates, it would clearly be an advantage if the categories of bromide intoxication and bromide psychosis were clearly defined and introduced on a wide scale into the reporting systems of general hospitals and mental hospitals, and if these reports were consolidated by central health agencies. This would give some rough minimal indication of the magnitude of the problem. Any more accurate estimates must depend on the inclusion of these conditions in the morbidity surveys on sample populations which have already been advocated in this report.

(10) Neurocirculatory Asthenia

Neurocirculatory asthenia is a disorder which was well recognized earlier in this century but no longer appears very often as an entity in the practices of clinicians. The consultants to whom our questionnaire was sent definitely agree that this disease is decreasing in the frequency with which it is diagnosed.

There is, however, considerable evidence that the symptom complex of fatigue, inability to handle any stress, weakness, palpitation, tachycardia, shortness of breath, and mild depression with a focusing of apprehension upon the heart, still appears but is not classified as it used to be. As neurocirculatory asthenia was a condition commonly seen in World War I but not used as a popular diagnosis in World War II, these two epochs seem to be exemplary contrasting periods of time.

Cobb states that he still sees cases, and earlier wrote: This is too complex and varied to describe in brief. Almost any symptom may appear. The commonest categories are the rather simple conversion hysteria (found mostly among enlisted men) and the difficult anxiety states (found more often among officers). Here should be mentioned the ‘effort syndrome’ (‘Soldier’s Heart’, ‘Neurocirculatory Asthenia’, ‘D.A.H.’); it seems probable that these four terms are synonymous for ‘anxiety neurosis’, so the total psychoneurotic
actual decrease in incidence. Cobb’s feeling that sophistication of officers made them less likely than the enlisted men to develop a simple kind of conversion hysteria, would suggest that the more sophistication there is in a population group, the more acceptance there is of anxiety and all of its components as being a natural response in an individual facing stress. If our present population can be regarded as having more sophistication than that of 30 years ago, it is feasible to expect that they are less susceptible to a simpler pattern of response—neurocirculatory asthenia as opposed to chronic anxiety neurosis.

Some authors seem to lay emphasis upon the difference between the two World Wars with respect to how fear was handled. In World War I it was regarded as not desirable to admit that one was afraid; while in World War II the soldiers were encouraged to talk about being afraid. This would tend to lessen the need to repress fear and would theoretically reduce the incidence of neurosis.

This also relates to the “recognized”, or perhaps “accepted”, methods of “crying for help.” In World War I it was socially unacceptable to show fear. During World War II, medical officers accepted “anxiety” as a natural phenomenon and, in an iatrogenic sense, made it possible for people to “cry for help” by expressing fear; therefore, there was less necessity to have “heart trouble.” The iatrogenicity of disease cannot be overlooked as an etiological factor contributing to the incidence of disease entities.

It is clear that there has been a marked decline in the frequency with which this diagnosis is used. There has undoubtedly been a marked change in diagnostic standards, however, which could account for this decline. Because of the heterogeneity of diagnostic standards, it is not possible to tell if the syndrome is actually less frequent in its occurrence. On reflection, many patients could fit the descriptions of neurocirculatory asthenia, although they are not so diagnosed to-day. Nonetheless, many believe that the syndrome has, in fact, declined in frequency in some segments of the population.

(11) Psychoneuroses With Diffuse Anxiety as the Primary Manifestation

This category ranks second only to the psychoses of the aged in the degree to which our colleagues judged it to have increased in frequency. All nine judges who felt able to express an opinion,
stated that it had increased in frequency, five feeling that there
had been much change and four judging that there had been a
small change in frequency. No judge was of the opinion that this
condition had not changed in frequency, but one judge felt too
uncertain to express an opinion.

No statistical evidence was forthcoming to support the opinion
of our consultants. It could hardly be expected that such evidence
would be available since the term “psychoneurosis with diffuse
anxiety” was introduced into official nomenclature during World
War II as a result of experience of psychiatrists in the armed
services. It is possible that the need to introduce a new term was
due to an increase in the frequency of this syndrome in clinical
practice, but it may equally have been due to a change in diag-
nostic fashion among psychiatrists. They were forced to re-appraise
their terminology—to screen and classify a greater number of cases
than they had met in their civilian practice—because they were
presented with a more complete sample of the mentally disordered
population under the controlled conditions in the services. The
expansion of the functions of psychiatrists in the services may also
have led to a new classification of illness and a rather vague diag-
nostic term for individuals whom previously they either would never
have seen or would have judged to be “nervous” but within the
range of normality.

The frequent assertions in the non-psychiatric literature that
ours is “the age of anxiety,” and that the ever increasing pace and
tension of modern life are leading to an increase in nervousness in
the general population, are not impressive. Similar assertions have
frequently been made in earlier times, and not much weight can be
given the state of optimism or pessimism of the writers of any
particular generation.

We realize that the term “psychoneurosis with diffuse anxiety
as the primary manifestation” has no precise definition as a clinical
entity. Our efforts to arrive at an exact definition were unsuccess-
ful. It seemed very likely that although so many of the judges had
agreed that the condition had increased in frequency, each may
have been referring to some different condition from his clinical
practice to which he felt the term applied. It may be that the
agreement confirming changes in frequency of “psychoneuroses
with diffuse anxiety as the primary manifestation” was possible
only as long as the term was kept undefined and fuzzy. One ex-
planation is that the term is a residual category associated with
breakdown in communication between patients and their physicians.
Whenever a patient has not learned from his physician an accept-
able terminology to describe his discomfort and incapacity, the
physician, for want of a better term, may use this one in his
diagnosis. The term may therefore cover patients with a variety
of different clinical manifestations, and is used differently by
different physicians, especially if they are operating on the basis
of different theoretical systems of psychodynamics and psycho-
pathology.

As a diagnostic expediency, psychoneurosis with diffuse anxiety
may have some merit; but statistics which treat reported numbers
of these cases as though they were identical entities have little
value. It is possible that an apparent increase in the frequency
of this category is due to a greater exclusion of cases by physicians
from other diagnostic categories. There is also some possibility that
we are dealing with an earlier and transitory manifestation of any
neurosis which is now presented more frequently to psychiatrists
before specific neurotic patterns have crystallized.
V. GENERAL DISCUSSION AND CONCLUSIONS

The obvious need and special plea which emerges from this report is for the establishment of teams of psychiatrists, epidemiologists, and biostatisticians to carry out repeated studies of specified sample populations at regular time intervals. Such teams, possibly associated with university departments of psychiatry or with state departments of public health and of mental health, would be able to count the number of people suffering from mental disorders of various types. This is clearly a complicated task, but a number of pilot studies have already been carried out in this country and in Europe, which have uncovered some of the technical problems involved.7 Certain of these are problems which face not only the epidemiologists of mental disorder but the psychiatric clinicians too. Chief among these is the necessity of greater specificity in diagnostic categories to assure more uniformity in diagnosis. This is no new problem, but its solution demands a high priority today in view of its importance in the prevention and control of mental illness.

The problem is not merely the establishment of clearer definitions of diagnostic entities and their communication to psychiatrists and other physicians, but it also involves agreement upon a nomenclature which will be maintained without change over a prolonged period. Since nomenclature is to some extent a derivative of the scientific and clinical philosophy of the time, which changes with increasing theoretical sophistication and in response to fashions of thinking, it is too much to expect that it will not change with the passage of time. Nevertheless, whatever control of these changes may be feasible would be helpful; and psychiatric organizations should be encouraged to increase their current efforts to standardize and stabilize nomenclature.

It may be thought that since the responsibility for the collection of data by repeated surveys of sample populations is to be vested in a relatively small number of specialized teams, the widespread acceptance of a standardized and stabilized diagnostic system and nomenclature loses importance; that all that is needed is for these specialized research workers to agree among themselves upon diagnostic categories and nomenclature. This is not sufficient for a number of reasons. First, the question of changes in the frequency of mental disorders is not an academic one, but is a question which is of great importance to every practitioner in the field, since his activities will be affected by the findings of these studies. It is necessary therefore, for the epidemiological psychiatric studies to concern themselves with the identical categories of mental disorders which are handled by the clinicians and the administrators of community psychiatric services. A drawback of some of the past epidemiological studies is that they have, for the sake of methodological expediency, invented their own private definitions of categories of mental disorder, and in certain cases have even studied the distribution of "global mental disorder," without breaking this down into the usually accepted diagnostic categories. Thus much of their findings are of limited utility to the clinical psychiatrist and the administrator of psychiatric programs. The latter workers are forced to differentiate their treatment and their service planning in relation to the separate categories of mental disorders.

In addition, it seems that although statistics derived from the records of mental hospitals and other institutions cannot be relied upon as a sole means of estimating incidence and prevalence rates, they do form an invaluable source of information for anyone who wishes to carry out studies of these rates. The point which is made in the present report is that hospital statistics need to be augmented by direct surveys of populations, conducted by field visits. It is hardly likely that many teams of psychiatric epidemiologists will feel the necessity for personally examining every psychiatric patient in order to confirm the diagnosis which may have been attached to him by a mental hospital. Wherever a mental hospital or psychiatric or other medical agency has investigated a patient and arrived at a diagnosis, this is likely to be used by the survey team. However, they may carry out certain investigations to check the reliability of diagnosis and nomenclature in a sample of this particular group. This means that although the research team will not be satisfied by simply taking figures from reports of the local
institutions, and they will themselves appraise the mental status of individuals who have in the past not had any connection with such institutions, they will nevertheless wish to obtain institutional figures. These should include data from such agencies as nursing homes, chronic disease hospitals, and homes for the aged. Such institutional figures need to be based upon a widespread standardized system of diagnostic categories and a stable nomenclature.

The present report has dealt with possible changes in frequency of only certain mental disorders and problems of measuring them. Since it is a preliminary communication on this topic, it was decided that instead of surveying all possible categories of mental disorder, only those mental disorders should be included where there seemed a fairly strong indication that some change had in fact occurred over the last twenty to thirty years. The list of diagnostic categories included in the present report is by no means exhaustive. The omission of practically the whole field of mental subnormality is a significant one—particularly in view of latest researches in genetics, and in view of the risk of substantial increases in the level of radiation in the near future which are likely to increase the possibility of dramatic changes in this area.

It is further necessary to emphasize that for the sake of simplicity the present report has paid attention only to mental disorders proper, and has not extended its discussions to include disorders in the general psychosocial field, such as prostitution, divorce, illegitimacy, delinquency, etc. These conditions can be considered either as indices of possible mental disorder or as alternative modes of maladaptive coping with the difficulties of life. In either event they should be studied to find out whether a lessening of deviance in one area is counterbalanced by an increased deviance in another mode; for example, to find out whether a decrease in the incidence of certain psychoses or neuroses is counterbalanced by a concomitant and possibly consequent increase in the incidence of delinquency or divorce, or vice-versa.

The tentative conclusions at which we have arrived in the present report do not support the point of view that a lowering of the frequency of any particular mental disorder will inevitably result in the increase in frequency of some alternative mental disorder or some alternative form of social deviation or physical illness. The reduction in the frequency of a particular disorder may have been due to sociocultural changes which no longer reward this pattern of "crying for help," or which actively suppress the particular symptomatology, or treat it with negative sanctions—rather than due to alterations which have prevented or reduced the original problem for which the disorder was a deviant type of solution. Insofar as this is the case, it may be expected that some alternative form of deviance may result. Fashions occur in the field of disease just as they do in regard to other aspects of living. We are referring here not to the obvious change of pattern in regard to nomenclature but to the more subtle alterations of pattern which mirror changes in the philosophy of the medical profession. As a result of these changes, physicians are prepared to treat with seriousness and with interest certain forms of behavior in their patients rather than other forms. We are also referring to more general community alterations in attitude which may, in our day, make it unpopular in sophisticated circles for a person to manifest symptoms of conversion hysteria, but which may reward with sympathy and interest his demonstration of feelings of tension and strain in the form of a gastric ulcer.

It is possible, however, to conceive that certain basic problems to which people have difficulty in adapting—with which they therefore deal by deviant problem solving in the form of mental disorders—may be reduced in intensity. It is also possible that services may be provided to help people overcome these obstacles in their lives by the use of "healthier," that is, more acceptable, methods of problem solving in that particular culture. Under these conditions it is certainly conceivable that the frequency of mental disorders of certain types may be reduced without any consequent increase in the frequency of other disorders, whether of psychological, social, or biological functioning.

The important point to realize is that discussions such as this are not likely to be resolved on the basis of theory. Only investigations of the type proposed in the present report will be able to provide an answer.

In conclusion we would emphasize the importance of the question whether or not there has been a change in the frequency of certain mental disorders over the last few decades. It is a difficult question to answer on the basis of present information. Improved methods of data collection and analysis will permit
us to arrive at more definite conclusions than are possible at the present time. The question gains urgency as we move into an era of psychiatric practice in which we think not only of the individual psychiatric patient who happens, by a series of chances, to be under our care in an institution or in private practice. The tremendous number of other people in our community who may be suffering from similar conditions must also be considered. We feel some responsibility for their welfare, and this is manifested by plans to maintain psychiatric programs for the whole community. Answers to the question will give us leads to the etiology of mental disorders and other forms of psycho-biosocial deviation. They will also enable us, for the first time, to carry out evaluations of our present programs of treatment and control of mental disorders, and of future programs for their prevention.

REFERENCES


14. ANNUAL REPORTS OF NEW YORK DEPARTMENT OF MENTAL HYGIENE.


BIBLIOGRAPHY


Group for the Advancement of Psychiatry

Committee on Adolescence
Edward J. Horner, New York, N.Y.
Charles D. Carlson, Winnetka, Ill.
Warren J. Gadsby, Denver, Colo.
Morris D. Kamin, New York
Joseph D. Neublatt, Bethesda
Charles D. Nelson, Archdale, N.C.
Henry Werner, Chestnut Hill, Mass.

Committee on Aging
Alvin J. Goldfarb, New York, N.Y.
Ewald W. Bass, Dayton, O.
Lawrence Greenslade, Beverly Hills, Calif.
Maurice E. Lindon, Philadelphia
Frederick Thompson, Topeka
Jack Weinberg, Chicago

Committee on Child Psychiatry
Leon Eisenson, Baltimore, Md.
E. James Anthony, St. Louis
H. Donald Bantum, New York
William S. Lawrence, New York
Reginald S. Lourie, Washington, D.C.
Peter B. Muenzinger, New York
Dana Frueh, Rochester, N.Y.
J. Franklin Robinson, Wilkes-Barre
Susanne van Amersfoort, Boston
Ervin E. Wachss, New York

Committee on College Student
J. B. Wheelerwright, San Francisco, Calif.
Robert L. Armstrong, New Haven
Harriette L. lowry, New York
Alfred Pleshaw, Chicago
Alan Frank, Boulder, Colo.
Daniel H. Fuenkeinast, Boston
Charles Prautzsch, Washington, D.C.
Briscoe, Bethesda
Blessing B. Sayers, Cambridge
Malakol Tobin, Brookline, Mass.

Committee on the Family
John P. Speed, Cambridge, Mass.
Sidney Bierman, Washington, D.C.
Murray Bowon, Chevy Chase
David Mondel, Houston

Committee on Governmental Agencies
John K. Nardi, Bethesda, Md.
Benjamin H. Siben, New York
Norman Q. Bril, Los Angeles
John M. Coldwell, Jr., Miami
Robert H. Felix, Bethesda
Albert J. Gans, Washington, D.C.
Edgar J. Killam, Los Angeles
Robert F. Morse, Washington, D.C.
Donald E. Peterson, Asaka, Min.
Richard Waggoner, Ann Arbor
Robert L. Williams, Galveston

Committee on Hospitals
Robert S. Garber, Princeton, N.J.
Alfred B. Pack, Topeka
Walter E. Barton, Boston
Robert E. Bennett, Princeton
David Blum, Sacramento
James B. Finkhouser, Richmond, Va.
Paul Haud, Trenton, N.J.
George W. Jackson, Topeka
Frank J. O'Neill, Central Islip, N.Y.
Hugh RFC, Topeka
Lucy D. Cadey, Boston
Leo G. Sawill, Perry Point, Md.
Geoff L. Willson, Omaha

Committee on International Relations
Morton Towle, New York, N.Y.
Francis P. Barnes, Chevy Chase
Louis O. English, Penang, New York
Frank Rosenblum-Smith, New York
John G. Linsky, Mirowski, Phil.
Nelson Z. Needham, Ridgefield, Conn.
Bertram Spindel, New York
Brandt S. Davis, Denver, Colo.
Bryant S. Wedge, New Haven

Committee on Medical Education
Herbert C. Modlin, Topeka
Harvey H. Corwin, New York
David Hawkins, Chapel Hill, N.C.
William L. Fields, Philadelphia
Ellyn V. Sevren, Boston
Harry H. Wagner, Chicago
Roy M. Whitney, Cincinnati

Committee on Mental Retardation
Max M. Finch, Ann Arbor, Mich.
Howard V. Blair, Pusan, Korea
Pamela J. Bornman, Powell, Ohio
Lois Madoff, Philadelphia
George Reilly, Falmouth, Mass.
Harry T. Vaughan, Jr., San Mateo, Calif.
Henry W. Rossen, Los Angeles

Committee on Preventive Psychiatry
Gerald Caplan, Boston, Mass.
Ivan Clark, Jersey City, N.J.
Leonard J. Duhl, Bethesda
Stephen Pfeffer, New Haven
W. B. Nottke, Detroit
Ernest M. Grueben, New York
Robert W. Korn, Ann Arbor
Benjamin J. Greenberg, New York
Robert S. Garber, Princeton
Emmanuel J. Schwartz, Philadelphia

Committee on Psychiatric Nursing
Benjamin Simon, Boston, Mass.
Harriet A. Adland, Chevy Chase
Ira W. Clancy, Westbury, N.Y.
Thomas E. Curtis, Chapel Hill
Robert W. Gibson, Towson, Md.
A. F. Greenberg, Bethesda
Bernard R. Hall, Toledo
Melvin Sahlin, Chicago
Robert E. Small, Topeka

Committee on Psychiatry in Industry
Graham C. Taylor, Montreal, Que.
Sponsor: Baylis, Houston
Matthew Brody, Brooklyn
Ralph T. Collins, Rochester
Leonard E. Hinder, Ann Arbor
Alan A. McLean, New York
Kenneth Munden, Topeka
Louis L. Tureen, St. Louis

Committee on Psychiatry and Law
Andrew S. Watson, Ann Arbor, Mich.
Edward T. Auer, Philadelphia
Bernard L. Diamond, San Francisco
John Denecy, Hartford
Jay Katz, New Haven
Zigmund M. Levenson, Washington, D.C.
Philip G. Rocks, Philadelphia
Joseph Satter, Topeka
Gene Uzun, New Orleans

Committee on Psychiatry and Psychoanalysis
Carmen O. Stoln, New York, N.Y.
Joseph J. Bensley, Philadelphia
Arthur A. Miller, Chicago
Perry Gitzenberg, Philadelphia
Charles A. Pfeiffer, Boston
Ruthersford S. Stevens, New York

Committee on Psychotherapy
Marvin Stein, Philadelphia, Pa.
Richard Callaway, San Francisco
Joel Elgart, Washington, D.C.
James W. Wetzel, Media, Pa.
Milton Greenblatt, Boston
Paul B. Hunter, Aurora, Colo.
P. Herbert Leckman, Cambridge
James C. Miller, Ann Arbor
George Ruff, Philadelphia
Charles Sheghan, Iowa City
Albert J. Silverman, Denver

Committee on Public Education
Kurt A. Zimmerman, Berkeley, Calif.
Lee H. Hartenberger, Baltimore
H. Wadie Bird, Ann Arbor
Jack E. Kasten, New York
David E. McFarland, Cambridge
Marion E. Kenworthy, New York
John P. Lombard, New York

Committee on Research
Robert Wallenstein, Topeka, Kan.
Sponsor: Riley, Boston
Matthew Brody, Brooklyn
Ralph T. Collins, Rochester
Richard H. Kanner, Los Angeles
Alfred N. Steinman, Boston
James S. Tyhurst, Vancouver, B.C.

Committee on Social Issues
Judd Marmor, Beverly Hills, Calif.
Nathan W. Ackerman, New York
Norval F. kann, New York
Jerome D. Frank, Baltimore
Jules G. Fisch, Berkeley
Harry L. New Orleans
Robert J. Lifton, Cambridge
Joseph J. Bacharach, Buffalo
Arthur A. Miller, Chicago

Committee on Therapy
Walter L. Hamburger, Rochester, N.Y.
Hugh T. O'Malley, Buffalo, N.Y.
Moses M. Frolich, Ann Arbor
Vincent H. O'Connell, Oklahoma
Albert E. Scheff, New York
Arthur V. Valenstein, Cambridge

Contributing Members
J. A. M. Ackerman, Louisville
Carlos C. Allen, Jr., Las Vegas, APH
Arthur P. Allman, Los Angeles
Frederick H. Allen, Philadelphia
Kenneth A. Arons, Philadelphia
Charlotte Backus, Pittsburgh
Daniel W. Baldwin, Philadelphia
John E. Barr, New York
Grace Baker, New York
Herman Bender, Boston
Ann R. Benjamin, Chicago
A. M. Bennett, Beverly
Edward G. Billings, Denver
Carl A. L. Bing, New York
Wilfred Blumstein, Hartford
C. T. Drinkard, Salt Lake City
Eugene Brody, Baltimore
Keefer C. Cameron, Washington
Norman Cameron, New Haven
Frank Brown, Cleveland
Jules V. Cohen, New York
Frank J. Curran, New York
O. Spurgeon English, Philadelphia
Lawrence E. Freedman, Stanford, Calif.
Thomas M. French, Chicago

*Participated in the formulation of Problems of Estimating Changes in Frequency of Mental Disorders prior to transfer to Contributing Member status.

517

518
Publications of the Group for the Advancement of Psychiatry

Readers of this publication may not be aware of recently published GAP Reports. A selected listing of titles and prices is given below:

<table>
<thead>
<tr>
<th>Number</th>
<th>Title</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>Basic Considerations in Mental Retardation: A Preliminary Report — Dec. 1959</td>
<td>.40</td>
</tr>
<tr>
<td>44</td>
<td>The Psychiatrist and His Roles in a Mental Health Association — Jan. 1960</td>
<td>.50</td>
</tr>
<tr>
<td>37A</td>
<td>Emotional Aspects of School Desegregation — April 1960</td>
<td>.50</td>
</tr>
<tr>
<td>S-6</td>
<td>Psychological and Medical Aspects of the Use of Nuclear Energy — June 1960</td>
<td>.75</td>
</tr>
<tr>
<td>45</td>
<td>Confidentiality and Privileged Communication in the Practice of Psychiatry — June 1960</td>
<td>.50</td>
</tr>
<tr>
<td>46</td>
<td>Administration of the Public Psychiatric Hospital — June 1960</td>
<td>1.00</td>
</tr>
<tr>
<td>47</td>
<td>Preventive Psychiatry in the Armed Forces: With Some Implications for Civilian Use — November 1960</td>
<td>.75</td>
</tr>
<tr>
<td>48</td>
<td>Psychiatry and Religion: Some Steps Toward Mutual Understanding and Usefulness — September 1960</td>
<td>.75</td>
</tr>
<tr>
<td>S-7</td>
<td>Application of Psychiatric Insights to Cross-Cultural Communication — April 1961</td>
<td>.75</td>
</tr>
<tr>
<td>49</td>
<td>Reports in Psychotherapy: Initial Interviews — June 1961</td>
<td>.40</td>
</tr>
</tbody>
</table>

A complete listing of publications of the Group for the Advancement of Psychiatry may be obtained upon request from the Publications Office.

Two bound volumes of reports and symposiums, covering the years 1947 to 1959, are also available and include reports which are now out of print and unavailable in any other form.