CONTROLL AND TREATMENT OF TUBERCULOSIS IN MENTAL HOSPITALS
Formulated by The Committee on Hospitals of the Group for the Advancement of Psychiatry

Report No. 24
419 Park Avenue South, New York, N.Y. 10016
January, 1954

CONTENTS
INTRODUCTION .............................................................................. 1
HISTORICAL BACKGROUND .................................................. 1
IMPORTANCE OF CONTROL .................................................... 1
PRINCIPLES OF CONTROL ....................................................... 2
CASE-FINDING TOOLS ................................................................ 3
B. C. G. VACCINATION ............................................................ 4
THE TUBERCULOSIS CONTROL OFFICER ......................... 4
THE TUBERCULOSIS REGISTRY ............................................... 5
ARCHITECTURAL CONSIDERATIONS .................................... 5
GENERAL CONSIDERATIONS ................................................ 7
COMPONENTS OF THE BUILDING........................................ 9
NURSING UNIT FACILITIES ................................................ 10
TREATMENT ............................................................................. 11
REHABILITATION—INTRA-MURAL AND EXTRA-MURAL . 13
REFERENCES ........................................................................... 15

INTRODUCTION
Active tuberculosis is probably more prevalent in mental institutions than anywhere else, outside of tuberculosis hospitals.

Surveys in mental hospitals reveal 27 to 40 active cases per thousand examinations, compared to one case per thousand in our general population and 12 cases per thousand in prisons.5,6

The tuberculosis death rate in mental institutions is 19 times the rate in the general population. (In 1949, the death rate was 500.9 per 100,000 in mental institutions, as compared to 26.3 per 100,000 in the general population.)7

It is estimated that at least 30,000 Americans hospitalized because of mental illness are also afflicted with tuberculosis, although not all have been so diagnosed.

The emotional and epidemiologic factors accounting for the high rate of tuberculosis in mental institutions and the care and treatment of tuberculous mental patients will be discussed in the following pages.

HISTORICAL BACKGROUND
Tuberculosis has long been known as a "crowd disease"—a disease of cities and other places where people live in close proximity.

Throughout medical history, it was repeatedly noted that tuberculosis flourished in such places as jails, almshouses and slums. Since the early mental hospitals were a combination of poorhouse, hospital and jail it was not surprising that tuberculosis was disproportionately common in them. In 1863, Clouston (cited by Anderson8) commented that tuberculosis, which caused 20 per cent of all deaths in Edinburgh, caused 34 per cent of the deaths in that city's mental institutions.

Psychiatric institutions began to assume their medical and hospital character, as contrasted with their previous jail and almshouse traits, in the middle of the 19th century. It was understood that a high proportion of their patients would have tuberculosis, just as it was taken for granted that many would suffer from pediculosis, typhoid fever, typhus fever, and malnutrition. Since concepts of segregation and asepsis had not yet been developed, there was no recorded attempt to develop special wards or sections or special control procedures for the tuberculous psychotic patient. So far as current records reveal, the first mental hospital to segregate tuberculosis patients was the Peoria (Illinois) State Hospital. Here, in 1904, an enterprising and farseeing superintendent, Dr. George Zeller, set up a number of large tents to house his tuberculous psychotic patients.8

This primitive colony was the pioneer separate-treatment facility for tuberculous psychotics. Bed-rest, fresh air, and a high protein diet were the only instruments Dr. Zeller had available, and he used them all. Edward Livingston Trudeau himself had no better prescription at that time.

IMPORTANCE OF CONTROL
In tuberculosis work today, the key word is "control." Even a cursory study shows that control methods produce results.

For example, in 1945, just before the establishment of an energetic tuberculosis control program in the Illinois State Hospital system, approximately 2 per cent of the patients were developing tuberculosis while in residence. In 1951, after the control program had been developed and implemented, the incidence fell to one per cent—a fifty per cent reduction. In the New York State Hospital system, the incidence of tuberculosis among previously negative reactors was reduced 30 per cent within a few years after installation of a control system.9

In state hospitals with sub-standard control systems, the rate of tuberculosis is 40 per thousand patients.4

In the predominantly psychiatric hospitals of the Veterans Administration where consistent control measures are in effect, the rate is only nine per thousand for World War I veterans. These are the older, long-stay patients who would be most likely to show the results of continued contact with tuberculosis. For World War II veterans, the incidence is only four per thousand.

Control methods not only cut down the tubercu-

*Consultants who assisted the Hospital Committee in preparation of this report: Dr. John Barnwell, Chief, Tuberculosis Division, Veterans Administration, Washington, D.C.; Dr. Otto L. Bettag, Director, Dept. of Public Welfare, State of Illinois, Springfield, Ill.; Dr. Julius L. Wilson, Director of Clinics, Henry Phipps Institute, Philadelphia, Pa.; Dr. Robert E. Plunkett, Asst. Commissioner for Tuberculosis Control, New York State Department of Health, Albany, N.Y.; Dr. Ralph M. Chambers, Chief Inspector, Central Inspection Board, American Psychiatric Association, Washington, D.C.; and Dr. Maxim Pollak (Deceased), formerly Chief of Tuberculosis Service, Veterans Administration Hospital, Downey, Illinois.
loss rate among in-patients, but they also save dollars, help overcome staff shortages, and reduce spread of the disease to employees and, through them to the general public.

Dollars and cents justification for control is readily apparent. First, the per diem patient cost in a tuberculosis hospital is higher than in a mental hospital. Then, tuberculosis, unlike mental disease, threatens the employee who works in the institution, and many states (New York and Wisconsin, for example) have laws that make tuberculosis contracted by an employee a compensable disease.

Some state hospital systems where there is poor tuberculosis control have difficulty finding insurance carriers who will write workmen’s compensation policies for them. The average compensation payment to an employee who contracts tuberculosis is estimated at $15,000.

Plunkett gives this report:

“In New York State, a control program budgeted at $50,000 was requested of the legislature in 1936, without success. From July 1, 1935, when the compensable feature of the labor laws became effective, to January 1, 1941, the sum of $960,000 had to be allocated by the State Insurance Fund for compensation benefits for state institution employees who contracted tuberculosis at work during this period. When this was called to the attention of the legislature, funds were promptly made available for a program of institutional tuberculosis control... There has been a marked reduction in both the incidence and prevalence of tuberculosis among patients and employees throughout the past 11 years of our service.”

It has been suggested that many of the employees in these cases did not really contract tuberculosis in the hospital. One answer to that is: among employees in general psychiatric wards the prevalence of tuberculosis is the same as in the general population, while among employees in the tuberculosis-psychotic wards the prevalence is nine times greater than in the general population.

One great problem in the treatment of the tuberculous psychotic is staff shortage. Because of the high incidence, it is naturally more difficult to obtain an employee for a tuberculous ward in a mental hospital than for a general psychiatric ward.

The employee with clinical tuberculosis is a triple threat. He is a threat to the patients, to the other employees, and—since, unlike the average closed ward patient, he moves freely about—to the outside community.

Thus, it can easily be seen that whether the hospital is oriented towards a patient-centered operation or towards a staff-centered operation, a vigorous control program is essential.

PRINCIPLES OF CONTROL

Tuberculosis control methods are well known and well documented. Primarily, the problem is one of education. In the psychiatric hospital, a considerable number and variety of people must be taught the techniques that will prevent spread of the disease.

It is often pointed out that it is especially difficult to teach a routine or self-discipline to a psychiatric patient. While this is sometimes true, it is often exaggerated. Actually, most mental hospital patients are astonishingly amenable to discipline. The assumption that they cannot learn anything is unsound defeatism, quite unjustified by the facts.

Hospital personnel, in addition to being teachers of technique, must be practitioners, both for their own protection and for the protection of the patients. Communicable disease control techniques should also be applied to visitors in the tuberculosis wards. And finally, the control program should protect the outside community where the disease can be implanted by patients on visit or by employees participating in the community’s social life.

Tuberculosis control has three phases: (1) case-finding, (2) segregation, and (3) treatment.

Case-finding is the base of the pyramid. Fortunately, we now have better case-finding techniques in tuberculosis than we do in most other chronic diseases. Early discovery, on both a mass and individual basis, is certainly easier with tuberculosis than with cancer. Case-finding instruments, while admittedly not perfect, are still very effective. A mental hospital that does not use these techniques owes the community an explanation.

Segregation, the second phase, is necessary to prevent the patient from spreading the disease to others. This means separate and reasonably isolated wards, or, if possible, buildings. Since most mental hospitals are made up of many separate buildings this is a practical procedure, although it presents certain administrative and architectural problems.

However, the fact that a hospital has a splendid segregation system is not enough. Segregation will swiftly reduce the incidence of tuberculosis among previously negative reactors, but it is not therapy. Treatment is the capstone of the pyramid. Since there are certain special problems in treatment peculiar to psychiatric hospitals, this topic will be discussed under a special heading.

The American Trudeau Society has developed a control program suitable for mental hospitals which seems worth while summarizing here:

First, it recommends chest x-rays for all patients on the first and subsequent admissions to mental hospitals, schools for mental defectives, mental hygiene clinics, and colonies for epileptics. It urges that all such patients be x-rayed again at least once a year and also before discharge, furlough or trial visit.

It recommends that all employees and applicants for employment be x-rayed at the time they begin work, and semi-annually thereafter, and that personnel who work in tuberculosis wards have chest films every three months. It is preferable, the Society believes, that personnel with negative tuberculin reactions be employed elsewhere in the hospital than on the tuberculosis service.

One incidental benefit of routine, periodic x-ray programs is that they also sometimes disclose early cases of heart disease, carcinoma of the lung, spinal deformities and various chest disorders.

Its next step is to establish two segregation areas, one for patients with known active tuberculosis,
provide ultra-violet light for sterilization of the atmosphere.

**CASE-FINDING TOOLS**

The first requirement for a vigorous program is the will to develop and maintain one. Next, adequate staffing, both medical and technical, is needed. The third essential is equipment: the tools for case finding and for case treating.

The need for adequate x-ray equipment is emphasized. The regular 14×17 inch film, it has been found, is economical enough in case-finding programs in which the routine does not exceed a hundred films a month. The smaller size film has economic advantages when the volume of work is in excess of that number. It has been discovered that the 70 millimeter, or 4×5 inch film photo-roentgenographic unit will pay for itself in a short time if the work load is great enough because of the savings accrued by buying the smaller films. Whether a single x-ray unit should serve the entire hospital, or whether it is essential to have additional photo-roentgenographic units in one or more buildings outside the central x-ray department, depends on the volume of work, the architectural layout of the institution, and the conveniences of access between buildings. Experience shows that if there is to be only one additional photo-roentgenographic unit, the admitting suite is the best place for it.

In most States, Health Departments can assist the institutions in their case-finding programs through loan of mass radiography equipment for periodic x-ray surveying of patients and employees, thus making it possible for the institutions to concentrate on routine x-raying of admissions, discharges, and new employees. This should make the case-finding program economically feasible in all institutions. Those institutions which have large numbers of admissions and discharges, or those which must conduct their own periodic surveys, could consider the purchase of one portable photofluorographic unit rather than several fixed units, while others will find the use of large x-ray films more economical.

It must be emphasized that the small film is used for screening only and not for definitive diagnosis. Suspicious chests are, of course, x-rayed again on the regular 14×17 inch film.

Other tools are the laboratory equipment for sputum analysis and for tuberculin testing. Gastric lavage equipment is also needed in mental hospitals because some mental patients are not cooperative in bringing up sputum. This, in turn, points up the need for animal laboratories since the standard smear study of the lavage specimen is usually considered unreliable, and culture and animal inoculation are preferred methods for study of these specimens. Where the number of tuberculosis cases cared for in an institution is not large, it may be possible that facilities outside of the institution, such as the State or local health department laboratory, can be used for all necessary cultures and animal inoculations. In such cases, only simple facilities need be provided for smears and concentrates, and only such basic precautions need be taken as providing a relatively draft-free room for the laboratory working space.
Where cultures and animal inoculations are to be performed, however, rigid care is necessary. The rules listed by Fish and Spendlove\textsuperscript{23} deserve careful consideration: (1) specific instruction of laboratory workers; (2) proper equipment, including an exhaust hood and adequate instruction for its use; (3) ultraviolet light for sterilizing the atmosphere, and other ventilation measures; (4) a medical and health program for all workers; (5) utmost caution in handling tuberculous animals; (6) appropriate cleaning of laboratory quarters where tubercle bacilli are used; (7) decontamination procedures for all infected objects; (8) proper changes of clothing for laboratory workers, and (9) a number of additional measures of miscellaneous character.

Tuberculin testing is often neglected. The tuberculin status of each patient and each employee should be a matter of current record from admission or employment onward. One recent study showed that of the mental hospitals reporting, only 20 per cent did routine tuberculin testing, whereas 87 per cent of the reporting hospitals performed routine chest x-ray. Jails and prisons have a better record on routine tuberculin testing than do mental hospitals. Defin’s survey\textsuperscript{9} showed that in these correctional institutions some 28 per cent did routine tuberculin testing compared to 20 percent of the mental hospitals. Chest x-rays of new admissions, on the other hand, were far commoner in mental hospitals than in jails and prisons.

If a BCG vaccination program is to be adopted, the tuberculin testing program will obviously be automatically accomplished. If no such program is adopted, it is advisable to perform a tuberculin test on each newly admitted patient so as to have a record of his tuberculin sensitivity status on admission. This will be of assistance in arriving at a diagnosis should a routine chest x-ray taken at a later date show a suspicious shadow. However, as a method of case-finding, routine x-ray and tuberculin testing of all on admission, and x-raying periodically thereafter, is of much greater value than periodic tuberculin testing alone of negative reactors. Tuberculin testing of the entire resident patient population, although ideal, will usually not be of much value because of the high percentage of tuberculinization that currently exists among hospitalized mental patients.

Mechanical tools for case-finding—the tuberculin syringe, the lavage tube, the x-ray machine, the microscopic slide, are valuable. But they must not be permitted to eliminate the use of clinical skills and clinical judgment. It seems elementary to say that the clinical symptoms suggestive of tuberculosis should not be ignored. But in a mental hospital it is too easy to ascribe cough, weight loss, malaise, expectation, and weakness to something else. Psychiatrists must be constantly alert and avoid assuming that such a symptom as a sense of lassitude is due to emotional causes, even though the patient’s x-ray was reported negative at the last routine check.

The American Trudeau Society recommends that employees exposed to tuberculosis have a chest film every three months and if previously negative to tuberculin be retested with tuberculin every three months—a plan which must be enforced with scrupulous consistency. The principle of the annual physical examination for all hospital employees is well established. It would be difficult to justify such an annual examination that does not include a chest x-ray.

The tools for case-finding then include x-ray equipment, laboratory facilities—including animal inoculation or culture, lavage tubes, tuberculin syringes, and a stethoscope.

**B. C. G. VACCINATION**

The use of BCG\textsuperscript{22} (Bacillus Calmette Guerin) in mental institutions should be considered in view of the fact that a fairly large body of available data indicates that the vaccine is bringing about an appreciable reduction in the incidence of tuberculosis among certain groups of people who are likely to develop it because of unusual exposure, inferior resistance, or both. However, it should be absolutely understood that BCG is only an additional tool in tuberculosis control and should not interfere with the prosecution of the accepted methods outlined in this report.

It appears unlikely that BCG vaccination will be very effective when applied to those patients already in residence because of the high degree of tuberculization among them. It will be more effective when applied to newly admitted tuberculin negative patients. However, tuberculin negative resident patients should not be denied the protection that successful BCG vaccination is purported to give, unless the personnel needed to do this is inadequate.

The vast majority of patients in mental institutions are likely to become reactors to tuberculin and BCG vaccination will be helpful only to the proportion of patients that are negative. In order to vaccinate as many of them as possible before they become positive, emphasis should be placed upon the testing and vaccination of the newly admitted tuberculin-negative patients. Such a program should be especially of value in institutions for the mentally defective where the prevalence of sensitivity of recent entrants is low.

Employees should be given a high priority in the BCG vaccination program and tuberculin-negative employees, after they have been vaccinated and have become tuberculin-positive, should be assigned to the care of tuberculous psychotic patients.

**THE TUBERCULOSIS CONTROL OFFICER**

The control of tuberculosis in a mental hospital is everybody’s business. Aides, nurses, patients, doctors, janitors, technicians, clerks, therapists—everybody has a stake in it and everybody can contribute. The difficulty with this concept is that whatever everybody’s business soon turns out to be nobody’s business. To prevent dissipation of responsibility, each mental hospital should appoint a tuberculosis control officer. The Veterans Administration has

\textsuperscript{22}B.C.G. vaccine may be purchased from The Research Foundation: Room 201, Rice Laboratories, 1835 West Harrison Street, Chicago 12, Illinois. Dr. Sol Roy Rosenthal, Medical Director. In the States of New York and Pennsylvania, B.C.G. vaccine can be obtained from State Health Departments.
adopted this policy and has found it effective.

The tuberculosis control officer should, ideally, be a phthisiologist. Since tuberculosis is so common in mental hospitals, there should be a specialist in that disease on the regular staff of psychiatric institutions, full or part time. If there is none, it would be an excellent investment for the controlling agency to have one of the other physicians on the staff given intensive training in chest diseases. A job description for the tuberculosis control officer would list the following functions:

1. Assume responsibility for the tuberculosis control program, and have the backing of the hospital management at every stage.
2. Serve as focus for educating nurses, aides and other physicians in methods of tuberculosis control.
3. Chief of the tuberculosis-treatment service.
4. Read and appraise all chest x-rays.
5. Supervise and interpret tuberculin tests, smears, cultures, etc.
6. Serve as consultant in chest diseases to other services and wards.
7. Maintain liaison with national and local societies interested in tuberculosis; and with local health departments for follow-up of released patients. Consultation with State Health Departments can be an effective source of help with local problems.

A tuberculosis control officer should have some understanding of the psychiatric implications of this "double disease" and have the ability and opportunity to integrate himself with the psychiatric staff. He should be familiar with administrative, public health and statistical methods. This is a field where meticulous record-keeping is essential. If the doctor is otherwise qualified, but has limited talent for administrative and statistical work, he should be assigned an assistant—professional or clerical—who is able to maintain and interpret records.

The amount of good that a dynamic control officer can accomplish is enormous. The potentialities should challenge any good doctor. His success will be concrete and measurable.

THE TUBERCULOSIS REGISTRY

In order to keep the tuberculosis mental patient from becoming a health hazard to himself and others, a registry or roster of all patients who have active, inactive or highly suspected tuberculosis should be set up and kept in one central place in the hospital. The operation of this roster will be very similar to the operation of tuberculosis case registers in health departments.

Since there will already be detailed medical charts on all patients in the hospital, it will probably be satisfactory to keep summary records only. These records should show the date of the latest clinical examination, the extent of disease, activity status, and bacteriological status. It should also show, by means of a metal or celluloid signal or flag, the month in which a new report is due.

One of the major weaknesses in tuberculosis con-
adopted this policy and has found it effective.

The tuberculosis control officer should, ideally, be a phthisiologist. Since tuberculosis is so common in mental hospitals, there should be a specialist in that disease on the regular staff of psychiatric institutions, full or part time. If there is none, it would be an excellent investment for the controlling agency to have one of the other physicians on the staff given intensive training in chest diseases. A job description for the tuberculosis control officer would list the following functions:

1. Assume responsibility for the tuberculosis control program, and have the backing of the hospital management at every stage.
2. Serve as focus for educating nurses, aides and other physicians in methods of tuberculosis control.
3. Chief of the tuberculosis-treatment service.
4. Read and appraise all chest x-rays.
5. Supervise and interpret tuberculin tests, smears, cultures, etc.
6. Serve as consultant in chest diseases to other services and wards.
7. Maintain liaison with national and local societies interested in tuberculosis; and with local health departments for follow-up of released patients. Consultation with State Health Departments can be an effective source of help with local problems.

A tuberculosis control officer should have some understanding of the psychiatric implications of this "double disease" and have the ability and opportunity to integrate himself with the psychiatric staff. He should be familiar with administrative, public health and statistical methods. This is a field where meticulous record-keeping is essential. If the doctor is otherwise qualified, but has limited talent for administrative and statistical work, he should be assigned an assistant—professional or clerical—who is able to maintain and interpret records.

The amount of good that a dynamic control officer can accomplish is enormous. The potentialities should challenge any good doctor. His success will be concrete and measurable.

THE TUBERCULOSIS REGISTRY

In order to keep the tuberculous mental patient from becoming a health hazard to himself and others, a registry or roster of all patients who have active, inactive or highly suspected tuberculosis should be set up and kept in one central place in the hospital. The operation of this roster will be very similar to the operation of tuberculosis case registers in health departments.

Since there will already be detailed medical charts on all patients in the hospital, it will probably be satisfactory to keep summary records only. These records should show the date of the latest clinical examination, the extent of disease, activity status, and bacteriological status. It should also show, by means of a metal or celluloid signal or flag, the month in which a new report is due.

One of the major weaknesses in tuberculosis con-
trol is the failure to supervise cases periodically in accordance with their needs. The register focuses attention upon those cases needing better supervision. The register will also be used extensively for reference purposes, particularly for preparation of statistical reports to be used in program management. It is the basic source of information for epidemiological studies and other research. In some instances it may be advisable to add items to the register in order to carry out such studies most efficiently.

State regulations require that all tuberculosis cases be reported to the State Health Department. Admissions, discharges, and any leaves in excess of two weeks of tuberculous patients from mental institutions should also be reported. State Health Departments will, in turn, forward these reports to appropriate local health departments, or, if the patient is going to another state, to the State Health Department concerned. Through such reporting, supervision may be continued after the patient leaves the mental hospital.

ARCHITECTURAL CONSIDERATIONS

Should the tuberculous psychotic patient be housed in a tuberculosis ward of a psychiatric hospital, or in the psychiatric ward of a tuberculosis hospital?

From the start, the practice has been to set up special tuberculosis facilities in mental hospitals, rather than vice versa. There is much more chance that a long-term psychotic patient in a mental institution will develop tuberculosis than that a tuberculosis patient, long in a sanatorium, will develop a serious mental disease.

The transfer of psychotic patients to tuberculosis sanatoria has not been generally satisfactory because of the lack of structurally secure facilities, the infrequent presence of qualified psychiatrists on the house staffs and the non-psychiatric nature of the therapeutic programs, which ordinarily presuppose a level of disciplined cooperation and personal responsibility rarely attainable among psychotic patients. Neither has their transfer to the general hospital been widely successful, particularly because of the need for long-term treatment and a long period of controlled convalescence.

Small tuberculosis units in psychiatric hospitals have the disadvantage of insufficient case material to attract and hold the services of staff personnel qualified in phthisiology. Even large units in geographically isolated psychiatric hospitals experience great difficulty in obtaining the necessary medical, surgical and consultant services for a specialty otherwise unrepresented at the institution.

The course that appears to offer the greatest promise is the establishment of 150-300 bed tuberculosis centers in properly situated psychiatric hospitals. Psychotic patients from neighboring institutions may be sent to these centers for definitive therapy and convalescent care until the infective process has been arrested.

A psychiatric hospital would be considered properly situated if it were within the suburbs of a city having a Grade A medical school or a medical center of comparable standing with broad representation in the professional specialties, affiliated with
peutic facilities such as the theatre, recreation rooms, occupational therapy shops will be immediately available for the convalescent; and (7) it will be possible to provide specifically designed and psychiatrically appropriate hospital accommodations for the dual problems of tuberculosis and psychosis.

The nature and inter-relationship of these accommodations for a center of 150-300 beds is the subject of the present study.

General Considerations

Several assumptions regarding a suitable physical plant must be initially made here in the interest of explicit discussion. For the purpose of this analysis, it is proposed:

1. That the building be largely self-contained with a suitable range of therapeutic, recreational and rehabilitative facilities which may be exclusively employed in the care and treatment of tuberculous psychotic patients. Diagnostic and treatment activities requiring elaborate equipment (major operating rooms) or the services of specially trained personnel (biochemical determinations, K.U.B. studies) will be carried out in common hospital areas available for service to non-tuberculous patients.

2. That the building design, the equipment standards and the finish of the walls and floors be of a nature to encourage the maintenance of strict asepsis.

3. That the bed capacity of the building be sufficiently large to allow for the development of appropriately sized nursing units and the adequate diagnostic classification of patients without exceeding the bounds of maneuverability and of efficient medical administration.
4. That adequate areas for patient services, personnel offices, ward utilities and housekeeping facilities be provided on each ward to allow for the establishment of independent, locked nursing units.

5. That through careful design and the thoughtful choice and location of equipment, all necessary psychiatric safeguards for patients and staff be inconspicuously obtained, and optimal levels of observation insured.

6. That the building design allow maximum flexibility in the operation of varied medical programs without sacrifice of present convenience.

It is customary in many units to designate various areas of the ward or of the building as "clean" or "dirty" and to indoctrinate personnel in suitable techniques for each. In establishing design and equipment requirements it is important to remember that in almost every instance both terms are highly relative. Theoretically only the inside of an autoclave which has been under steam pressure for a period of time is "clean." And a multitude of factors involving organismal virulence and number, frequency of exposure and resistance of the recipient determine the significant "dirtiness" of other areas.

There is often more psychological comfort than bacteriologic accuracy in affirming that the space on one side of a door is "clean" while that on the other is "dirty."

In every instance the price paid for an aseptic provision—in terms of inconvenience to the staff, structures on therapy and excessively high costs—should be realistically weighed against the actual safeguard it will provide. It is impractical and epidemiologically unnecessary for the building under discussion to be completely self-contained in order to spare the balance of the hospital all risk of infection. Such a course would involve establishing major services for surgery, x-ray, laboratory, physical medicine, pathology, and dentistry, as well as installing elaborate sterilization, incineration, laundry, carpentry and maintenance equipment.

There are, likewise, certain aseptic advantages which can be obtained within the building by installing elaborate systems of barriers, pass windows, ultraviolet lights and electronically operated doors. Before such provisions are endorsed by the physician, it should be determined whether the anticipated gains clearly outweigh the attendant nuisance to the nursing staff, the loss of time in the operation of the unit, and the necessary expense of installation.
Components of the Building

An example of a building for the tuberculosis psychotic which reflects sound contemporary medical practice is found in plans recently developed by the Veterans Administration.* These were drawn up under the guidance of its Department of Medicine and Surgery and with the advice and assistance of national consultants in the fields of psychiatry and phthisiology.

The building is a three-story structure of fireproof construction containing 162 beds. Two infirm, one semi-ambulant and one ambulant nursing unit, each having a capacity of 40 to 41 beds, have been specified. Bedrooms range in capacity from one to eight. Multiple bedrooms allow 100 sq. ft. per bed on 9 ft. centers, thus providing 6 ft. intervals between beds.

A serving kitchen centrally located on each nursing unit floor allows for prompt food cart service to bed patients and the maintenance of high dietetic standards in the four ward dining rooms. All food waste, including the scrapings from patient trays are flushed through the kitchen garbage grinder into the general hospital sewerage system. Raw sewage is processed in municipal or hospital plants which meet accepted public health standards. Sterilization of kitchen utensils and of tableware is by live steam. Space is available in the building for pneumothorax and pneumoperitoneum treatments, for fluoroscopy and chest x-ray, for minor operative procedures, including phrenicotomy and bronchoscopy, for all clinical dental procedures, for initial laboratory studies on highly contaminated material, for sedative hydrotherapy and for the application of a limited number of other physical therapies. Some 2,000 sq. ft. are provided for occupational therapy, an additional 900 sq. ft. for a centralized recreation room and approximately 1,000 sq. ft. for library activities. A canteen allows patients to replenish their supplies of tobacco, magazines, toiletries and haberdashery and to make purchases at the soda fountain and lunch counter. A ground floor terrace and enclosed garden permit controlled access to the out-of-doors while two elevators in the building facilitate vertical transportation. A Social Service office and barber shop are provided on each nursing unit floor.

***See Figures 1, 2 and 3—Ground, first and second floor plans. 162-bed TB-Np Building.
Areas to which patients have access are finished with terrazzo floors and structural facing tile wainscot to a minimum height of 7 ft., thus allowing for damp mopping and dusting of all surfaces particularly exposed to contamination. A central vacuum system permits nozzle cleaning throughout the building and centralized collection of the contaminated dust under aseptic precautions.**** Small pane, steel detention windows with ventilator sash projecting inward are glazed with quarter-inch tempered glass to avoid the hazard of glass breakage. This specification also eliminates the necessity of detention screens and infective hazard of air-borne bacilli from dried sputum on the wire mesh. Exterior insect screens of stainless steel may be easily removed for cleaning. All linens used in the building are distinctively dyed and also permanently oiled to reduce the lint hazard. Soiled linens are sacked in

****A specially designed apparatus is now under investigation which shreds contaminated material collected from the nursing units, autoclaves the pulp under steam pressure and flushes the sterilized waste down the drain. Should the device prove satisfactory, sputum in cardboard cups, disposable tissue, balsa wood applicators, soiled dressings and similar highly contaminated articles will be processed, thus obviating the necessity of an incinerator within the building.

labelled bags before being placed in the laundry chute. Bags are collected by general hospital personnel and dry sterilized at the main hospital laundry before washing. General trash from the building is sent to the hospital incinerator in covered, sterilized cans for disposal.

The service entrance and personnel rest rooms, toilets and baths are situated in a wing of the building to which patients do not have access.

Nursing Unit Facilities

Each of the building’s four nursing units contains a solarium having three exposures and affording 32 sq. ft. of space for each patient: a visitors’ room; a ward dining room and a clothing room with an individual gymnasium type locker for the current supply of clothing each patient will have with him on the ward. A shower bath, a conventional tub and a pedestal tub are provided in each bathroom. Three centralized multi-fixtures toilets bring all bedrooms within 40 ft. of the nearest water section, materially reducing, thereby, the obligatory use of bedpans and urinals. Clean and soiled utility rooms, a laundry chute, wheelchair closet, nourishment kitchen, ward supply closet, and linen room are functionally placed for the maximum convenience of the nursing staff.
A "luxury closet" allows for the safekeeping of the patients' supplies of candy and tobacco. A male attendants' toilet assures more complete supervision of the aide group by the nursing staff and an occupational therapy closet off the solarium facilitates the execution of projects on the nursing unit. Recessed corridor lavatories, a gowning alcove, and a janitor's closet with natural light and ventilation promote the maintenance of an acceptable level of ward cleanliness. Stairs, to be used by patients only in the event of emergency, are designed without open wells and all sections of rooms to which patients might have access are fully visible from the door.

Five offices are provided on each of the nursing units. By situating the nurses' station on an offset corridor and enclosing it with tempered glass partitions, maximal observation of the solarium and of the nursing unit corridors is obtained. By concentrating beds in areas of the building predominantly devoted to this purpose, staff supervision is facilitated and the distance personnel must walk while on duty is held to a minimum.

TREATMENT

It is obvious that the psychotic patient with tuberculosis should have vigorous treatment for both conditions. Admittedly, in some mental hospitals treatment for the tuberculosis is only cursory. Either the hospital pleads general staff shortages, inability to obtain trained phthisiologists, or lack of physical and laboratory equipment. In many such instances, lack of willingness to go ahead boldly, or lack of ability to improvise may be a factor. Sometimes it is said that psychotic patients are not cooperative enough to do their part in a tuberculosis treatment program and that, therefore, no such program is being vigorously prosecuted. This is a totally unacceptable reason for inertia in developing a tuberculosis treatment program.

Regardless of real or alleged deterioration in mental patients afflicted with tuberculosis, all the current therapies for tuberculosis must be made available to them. That means chemotherapy, resection, collapse therapy and thoracoplasty and every other weapon in the armamentarium of the chest physician and chest surgeon. Apart from the obvious humanitarian and professional reasons, speedy arrest of the activity of the disease is essential in purely administrative terms, since tuberculosis units in mental hospitals are small and have seriously limited bed space.

A mental hospital caring for tuberculous patients requires an adequately trained chest physician and
properly trained professional nurses on its staff. If that is not possible, efforts should be made to make specialized intensive training in phthisiology available to one or more of its staff. Other alternatives include affiliating the hospital with existing tuberculosis institutions or agencies, or seeking the part-time services of chest physicians in the nearest community.

With good motivation and ingenuity, the hospital management can often improvise with surprising effectiveness. For example, Isbister tells of a Michigan State Hospital which used visiting chest physicians and surgeons on a consultation basis. The thoracic surgeons brought in their own sterilized packs because the hospital’s equipment did not permit the sterilization needed for chest surgery. One psychiatrist was trained as an anesthetist. One was trained in post-operative care of chest surgery patients. For every operation, a specially trained nurse was borrowed from a general hospital in another community. A makeshift arrangement, of course, but good results were obtained.

A patient-centered program is necessary. Hurst properly calls attention to the need for a staff-centered program in addition—a program focused on helping the staff carry on their day-by-day responsibilities, on protecting staff against infection, on education, both to overcome prejudices and to teach techniques. Besides the careful initial orientation of each worker assigned to the service, regular scheduled meetings between the professional directors of the program and all members of the assigned staff will serve to insure continuing group understanding of therapeutic and management goals.

The American Trudeau Society has formulated standards for a tuberculosis hospital. These should be maintained in the tuberculosis sections of mental hospitals. The approved tuberculosis hospital rules about frequency of examinations, temperature, pulse and respiration recording, and physicians’ visits must be followed.

Bed rest is required for the tuberculous psychotic patient under the same conditions it is required for the tuberculous patient who is free of mental disease. The usual indications: fever, toxic reactions and exudative lesions apply to the psychotic as well as to the non-psychotic tuberculosis patient. Some psychotics are difficult to keep in bed, and especially to make take daytime rest periods. Ward personnel must be taught how to be persuasive and win the patient’s cooperation.

Emotionally disturbed patients are often more responsive to group pressure than to staff coaxing, and group therapy might well include indoctrinating patients in the techniques of progressive relaxation. Exercise and other purposeful activity can be prescribed with no undue difficulty, since psychiatric hospitals have a long tradition of using activity measures.

Some general hygienic measures, such as fresh air, sensibly regulated room temperatures and shielding from excessive sunlight, can be largely controlled by the staff, and the patient’s cooperation is not a factor.

The proper tuberculosis diet can be offered with no special changes because of the patient’s mental illness. Few psychiatric patients resist eating and have to be tube-fed; the gavaged food can readily conform to the requirements for a tuberculosis diet.

All modern programs for tuberculosis include antibiotic therapy. The intermittent combined regimen seems to be the preferred method, and in general this combination of streptomycin and para- amino salicylic acid is as available to the mental patient as to the mentally clear tuberculosis patient. The isonicotinic acid drugs may open a new era in tuberculosis therapy; or they may turn out to be just one additional weapon. In any event, these hydrazine derivatives seem at times to help the mental as well as the pulmonary condition. There appear to be no overall contraindications to collapse therapy, thoracoplasty or other surgical methods in the tuberculous psychotic. While there are differences of opinion as to the relative individual value of different techniques, recent reports continue to indicate their effectiveness. It is evident that through the years attention has turned more and more to the possibility of the surgical removal of treacherous tuberculosis foci. Coordination with the psychiatric treatment is, of course, essential. For instance, it may be surgically unwise to start collapse therapy or thoracoplasty in a violent patient. But there are therapeutic means available to the psychiatrist which alleviate disturbing behavior. Therefore, the two programs should be coordinated.

Just as the tuberculous psychotic should not be denied any anti-tuberculosis measures, neither should be denied any of the treatment techniques in psychiatry. Knowledge of the psychodynamics involved is limited and further investigative work is urgently needed. Individual psychotherapy is entirely feasible in these patients. Group therapy, although limited by the fact that the tuberculosis is transmittable, can be carried out in the tuberculosis ward. Indeed, the fact that all the patients in the group have at least one problem in common (their tuberculosis) will actually increase the effectiveness of such therapy, since group identification will be enhanced.

The fact that the psychiatrist or other group leader must wear a mask and gown should not be detrimental. Unless the patient is wholly uncooperative and heavily infected, however, it is suggested that the doctor remove his mask during the initial interview and perhaps during the first few meetings. Face-to-face meeting helps the patient to know his doctor and to establish rapport.

Peacock believes that electro-convulsive therapy may somehow spread or aggravate the tuberculous lesion, though there appears to be no data upon which to base this fear. In the Ontario Hospital shock therapy was given under careful control to 110 patients with tuberculosis and there was no evidence that it had adverse effect on the pulmonary lesions. Pleasure cited evidence in 227 cases that electroshock therapy should be used wherever urgent psychiatric conditions exist.

The hazard with electric shock therapy increases with a patient under 35 years of age who has advanced tuberculosis. The risk of his condition becoming worse is about 30 percent. This leads
Pleasure to the conclusion that no tuberculous patient is so bad that electroshock should not be given if ECT is urgently needed for the psychiatric disorder. Similarly good results are reported by Jen- tof27, by Moore28 and by McClellan and Schwartz29. Probably it would be best if x-ray and other studies were made consistently before, during and after the course of electroshock therapy, with the double purpose of ascertaining whether the procedure was harmful in each case, and of accumulating enough evidence to permit some final conclusion on the safety of electro-convulsive therapy in tuberculous psychotic patients. Pollak30 urges that chest x-rays and other diagnostic studies be routinely made immediately before and at close intervals after each series of shock treatments. Of course, the therapists and aides in the shock room must follow the aseptic techniques.

The advantages of psychosurgery can be considered in certain intractable cases which have failed to respond to other forms of psychiatric treatment. There do not appear to be any reports of the effect of insulin therapy on tuberculosis, but on theoretical grounds there would seem to be some possible adverse metabolic effect, plus the danger of aspirating vomitus. Disturbed carbohydrate metabolism is undesirable in tuberculosis patients. This deserves further study for reports in medical literature advocate the use of insulin hypoglycemia to stimulate appetite in patients with tuberculosis. Instead of a deleterious effect, mild degrees of hypoglycemia may, in some cases, be beneficial.

The numerous modalities that come under the general heading of physical medicine and rehabilitation have a major place in the program for tuberculous psychotic patients. However, the tuberculosis imposes certain physical limitations and the mental disorder may impose certain psychological strictures. Hence the importance of working out exact physical medicine and rehabilitation prescriptions in occupational, physical medicine, manual arts, educational and corrective therapies. There should be special occupational therapy activities appropriate for those patients who are bed-fast.

Recreational activities are also valuable aids, and the tuberculosis patient gratefully receives television, moving picture and live-performer entertainment. With all these corrective, physical and recreational modalities, the usual precautions about asepsis must be maintained.

One staff-centered aspect of the treatment problem may be troublesome. The mental hospital fortunate enough to have a trained phthisiologist will, of course, assign him to the tuberculous-ward. It is unlikely that he will be a trained psychiatrist. Some plan must be worked out for continuing psychiatric care by one of the psychiatrists. If the ward officer is given exclusive responsibility for those patients, the result may be a complete abdication of the psychiatrist's knowledge or/and interest in this group of patients. The management of a psychiatric hospital with a tuberculosis service must be alert to this danger, and the fault is as often that of the psychiatrist as that of the chest physician.

REHABILITATION—INTRA-MURAL AND EXTRA-MURAL

Most responsible physicians today realize that their interest in a case must not end when the patient leaves the hospital or stops coming to the clinic. A case is not closed until the patient has been restored to the maximum social and vocational usefulness possible. To get a patient from bed to wheel chair is a satisfaction. Then to get him from wheel chair to ambulatory status is even more gratifying. And to see him leave the institution seems to merit a "well done." But it cannot stop there. There is still the transition from the hospital to the work bench.

Rehabilitation is one of the pressing challenges of modern medicine. A patient who has had both tuberculosis and a mental disease faces a double hurdle in returning to vocational and social life.

Bellak6 and later, Davidoff12, have pointed out that contrary to tradition tuberculosis patients are not consistently cheerful. Indeed, they both found that depression was one of the predominant emotional tones in the tuberculosis victim. There were mood swings, of course, and sometimes periods of euphoria did develop. But the commoner mistake was to underemphasize the natural reactive depression that seizes anyone diagnosed as tuberculous. Another psychologic characteristic of many patients with tuberculosis is hostility. Benjamin7 has underscored the importance of giving the tuberculosis patient a chance to air his grievances. Brooke8 shows how this hostility leads to uncooperativeness. If rehabilitation is to begin in the hospital, the staff must be indoctrinated with some understanding of these psychologic characteristics of the tuberculosis patient, and of the double dose inflicted on those who have both mental and pulmonary disease. Tuberculosis hospitals have found that the rate of discharge against advice cannot be reduced unless the staff members have some insight into the hostilities, guilt feelings and depression induced by the disease.

Any institutional structure which keeps people crowded and more or less unwillingly confined can be a breeding place for hostilities and grievances. This is true of the Army, of jails, of shipboards, of alms-houses, of boarding schools, of hospitals for chronic diseases, of all places where people must reluctantly live in close proximity. With the non-psychotic tuberculosis patient, this frustration is particularly important because of the guilt feelings associated with the disease, the sense of being unclean, the fear of being a menace to loved ones, and the normal chafing at the restrictions of a regimented life. Indeed, Benjamin7 has actually demonstrated that denying the patient a chance to express his hostilities has a measurable and adverse effect on the physical course of the tuberculosis; a prime instance of a psychosomatic concept in operation. Hartz14 has even reported conspicuous improvement and conspicuous decline in cavitary associated with major outside events of emotional significance to the patient. This may operate through the effect of emotions on the tonicity, vascularity and secretions of organs; or it may operate by making the patient
more cooperative or less cooperative with the treatment regime.

The particular emotional problem of the tuberculosis patient is that he has, or may be given, the sense of being an outcast. He often thinks of himself as a leper—sometimes brazenly, sometimes inarticulately with a repressed but blazing sense of anger. He can hardly be blamed for nursing a great hostility to the person who passed the infection on to him. Since that person is sometimes a close associate, the emotional significance of this is obvious. He may think he has a blood taint to pass on to his children or a blood taint that will obligate him to remain childless, a sort of dead-end in the stream of humanity. All this he carries, in addition to the reasonable fears of death, disfigurement, hemorrhage, poverty, incapacity, and general discomfort. To handle this complexity of emotions is a challenge worthy of the best skills of the therapist.

The tactical problem of rehabilitation must be remembered too. If, in speaking to relatives, the contagiousness of tuberculosis is overstressed, the result may be obsessional concern about sepsis and hostility to the presumed source of infection—the patient being hostile to his source, the other relatives hostile to the patient. If, to avoid this, the contagiousness is understressed, there will be danger of unwise laxness in aseptic technique.

Wassernug calls attention to another point usually overlooked. The field of tuberculosis, like that of the chronic diseases, sometimes attracts those who have tried to succeed in other fields and have failed. They are men who have been embittered by failure. Rehabilitation does not always begin with the patient, more often it originates in the physician or the nursing personnel who seek to motivate the patient to want to get well. The frustrated, unhappy doctor who resents his assignment can hardly develop hope and enthusiasm in his patient. The tuberculosis unit, if it would be most effective, needs the most enlightened and not the least able physician.

Rehabilitation requires teamwork—not the teamwork of a conference, but teamwork in action. It involves physicians and relatives, labor unions and employers, public health nurses and social agencies. And it requires more than good will and a promise to cooperate. Rehabilitation begins, as Coleman has said, with orienting the patient to his illness. It includes realistic evaluation of the organic and emotional factors in the patient and of the social, vocational and psychological factors in the community to which he is returning. It includes a concrete plan of outpatient treatment, help in job finding, help in overcoming prejudice, facilities for both physical and mental hygiene procedures, vocational retraining perhaps, and some technique for gradually hardening the patient psychologically as well as physically to the non-protective climate of the world outside. To permit the patient to plunge into a life tempo which re-activates the disease is folly. To restrict him so narrowly that he is scarcely participating in the world is also folly. To help him steer a middle course is the real solution.

The psychiatric social worker makes a unique contribution here. In addition to his usual professional functions, he has the special job of helping to interpret the nature of this infectious disease to the public and to the family. He also mobilizes the community resources in vocational placement and in public health. In addition, since tuberculosis has a social as well as a pulmonary pathology, the social worker is also helpful in assisting in the reduction of premature discharges from the hospital, many of which are due to social, environmental and family factors.

Education is indeed the key word in overcoming the double prejudice against mental disease and tuberculosis. The patient, his family, the community, industry, labor, schools, and all the personnel of medicine and social work must be reached.

Specialization has brought many triumphs to medicine. It has also brought one evil—the curious departmentalization of the human body. The victim is often the patient who has been so unfortunate as to acquire two diseases which fall under the jurisdiction of different specialists. When two of the great plagues of mankind settle in the mind and body of one patient he puts all the skills of medicine to the acid test. Cooperation between specialties has already proven its effectiveness in the treatment and care of the psychotic patient with tuberculosis. The purpose of this report is to assist in its further development.
REFERENCES


DISTRIBUTION OF THIS REPORT

American Psychiatric Association, Request List from Members. Request List from Psychiatrists, Psychiatric Nurses, Psychiatric Social Workers, Psychologists, Medical Libraries, etc., United States and Foreign Countries.
Managers, Clinical Directors of Veterans Administration Hospitals where there are psychiatric facilities.
Superintendents and clinical directors of State Hospitals.
Superintendent of mental health authorities of the United States.
Provincial directors of mental health services in Canada.
Superintendents and clinical directors of public mental health hospitals in Canada.
Directors of mental hygiene clinics.
Professors of psychiatry of medical schools.
Faculties of schools of psychiatric social work.

Faculties of schools of psychiatric nursing.
Directors of programs of psychiatric nursing in mental hospitals.
Directors of programs of clinical psychology in mental hospitals.
Chiefs of the neuropsychiatric services of Veterans Administration Hospitals.
Group for the Advancement of Psychiatry

The Group for the Advancement of Psychiatry has a membership of approximately 150 psychiatrists, organized in the form of a network of committees of about 10 members each, which directs the efforts toward the following goals:

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 and good human relations.

COMMITTEES

Committee on Child Psychiatry
Othilda Krueg, Cincinnati, Oh.
Frederick H. Allen, Philadelphia
George E. Gardner, Boston
J. Cotter Hirschberg, Topeka
Milton Kirkpatrick, Kansas City, Mo.
William S. Langford, New York
Marian C. Putnam, Boston
J. Frank Robinson, Wilkes-Barre
John A. Rose, Philadelphia
Mabel Rouse, New York
Adrian V. Yeager, Chicago

Committee on the College Student
Leo Berman, Boston, Chr.
Harrison Eddy, New York
Dana L. Fairbanks, Cambridge
Robert B. L. Gaunt, Cambridge
Edward J. Hornick, New York
Bruce Johnson, Newark
William M. Shahn, Denver
Nelson Sloane, Philadelphia
Harry Wagenheim, New Haven
Bryant M. Wedge, Chicago

Committee on Cooperation with Governmental (Federal) Agencies
Benjamin H. Halper, New York, N.Y.
Caro C. Alden, Jr., Washington
Norman O. Berlin, Los Angeles
John M. Caldwell, Jr., Washington
Elmer L. Cavett, Bethesda
Rowley E. Chambers, Washington
Calvin S. Draper, Philadelphia
Bernard Glueck, Jr., Owings, Md.
Edward O. Harper, Cleveland
Thomas A. Harris, Oakland
Raymond W. Wagoner, Ann Arbor

Committee on the Family
John P. Spiegel, Boston, Chr.
Sidney S. Hirsch, Washington
Wilfred Bloom, Boston
George S. Stevenson, New York
Jack Weinberg, Chicago

Committee on Forensic Psychiatry
Lawrence Z. Freedman, New Haven, Conn.
Frank J. Curran, Charlottesville
Manfred S. Guttman, Baltimore
Philip Q. Roche, Philadelphia

Committee on Hospitals
Walter H. Baer, Peoria, Ill.
Kenneth A. Huy, Philadelphia
Alfred P. Ray, Topeka
Robert E. Bennett, Trenton
John E. Davis, Jr., Philadelphia
Paul Hahn, Westwood-Salem
Howard H. Eames, New York
C. O. M. Topkiss, Regina
Julu Nielsen, Indianapolis
Hamlin, Oshawa, Ontario
Eric J. Tompkins, Washington
Gus E. Walker, Polk, Pa.

Committee on International Relations
Florence Powle, Montreal, Canada
Roy D. Tisdale, Philadelphia
Frank Premo, Smith, New York
Otto Klineberg, New York
Bertram Schaffner, New York
Mortzam Terme, New York

Committee on Medical Education
Maurice H. Greenhill, Baltimore, Md.
Herbert S. Gaskill, Denver
George F. Ham, Chico, Tex.
Walter W. Hamburger, Rochester, N. Y.
Robert C. Heath, New Orleans
Henry D. Lederer, Cincinnati
Anthony J. Lopst, New York
Herbert J. Miller, Topeka
Russell Monroe, New Orleans
George San, St. Louis

Committee on Preventive Psychiatry
Rudolph C. Novick, Chicago, Ill.
Gerald Casablan, Boston
Steven Fleck, Conn.
Margaret Gerhardt, Chicago
Jacques G. Gottlieb, Miami, Fla.
Ernest H. Green, Syracuse
David M. Levy, New York
Erlich Linder, Boston
Warren T. Vaughn, Jr., Boston

Committee on Psychiatric Nursing
Elvira V. Seeman, Boston, Chr.
Helen R. Gilmore, New Haven
Bernard H. Hallin, New York
George W. Jackson, Topeka
Fred F. Robbins, Chicago
Benjamin Simon, Arlington, Mass.
Mary J. Thompson, Winston-Salem
David A. Young, Raleigh

Committee on Psychiatric Social Work
Irving Josselson, Chicago, Ill.
Anne Benjamin, Chicago, Ill.
C. K. Night, Minneapolis
Edward J. Hornick, New York
Margaret Kenworthy, New York
Hannah Litman, Rye, N. Y.
Don P. Morris, Dallas
Peter Newcomb, New York
Robert L. Stubblefield, Bethesda
Elsie E. Wolch, New York

Committee on Psychiatry in Industry
Walter D. Woodward, New York, N. Y.
Matthew Brody, Brooklyn
Ralph T. Collins, Rochester, N. Y.
Fredrick H. Hansen, New York
Alan McLean, Kentucky
Graham C. Taylor, Pittsburgh
Louis L. Tureen, St. Louis

Committee on Psychopathology
Paul Hahn, Boston, Iowa, City
Daniel W. Badal, Cleveland
Fewence Brotz, New Haven
Norman Cameron, New Haven
William L. Lander, Philadelphia
James C. Miller, Chicago

Committee on Public Education
John P. Lamb, Katonah, N. Y.
Leo H. Bartensh, Denver
Edward W. Billings, Boston
Jack Ewald, Boston
Alan Gregg, California
Paul Lemkau, Baltimore
William C. Mendenhall, Topeka
Robert T. McTear, Washington
Howard F. Nast, Rochester, Minn.
Julius Schrieb, Washington
Kent A. Zimmerman, San Francisco

Committee on Research
Alfred H. Stanton, Framingham, Chr.
Jacob E. Pinsinger, Baltimore
Thomas N. French, Chicago
Edwin F. Gildea, St. Louis
Eleanor Ravenstail, Boston
Richard S. Mencken, Chicago
Monte P. Meier, Washington
James S. Tihanski, Montreal

Committee on Social Issues
Charlotte Babcock, Chicago, Ill.
Vida W. Bernard, New York
Mabel B. Cohen, Chevy Chase
Sol Ginsburg, Chicago
Joel S. Handler, Chicago
Harold Lefk, New Orleans
Harold Y. McLean, Chicago
Angel N. Miranda, Chicago
Gerard J. Piers, Chicago
Wharton Sinkle, Philadelphia
Edward Stainbrook, New Haven
Rutherford H. Stevens, New York

Committee on Therapy
Berna Bandler, Boston, Chr.
Henry W. Brozin, Pittsburgh
O. Spurgeon English, Philadelphia
M. M. Froebich, Ann Arbor
Alfred O. Ludwig, Boston
Lewis L. Robbins, Topeka
Milton Rosenbaum, Cincinnati

Constituting Members
Spaak Ackerly, Louisville
Pam N. Alexander, Baltimore
Grace Baker, New York
A. E. Bennett, Berkley
Ivan Berl, Detroit
Curt Binger, New York
Earl D. Bond, Philadelphia
Walter Brumberg, Sacramento
David Cameron, Bethesda
Hugh T. Carmichael, Chicago
Frankin G. Ebaugh, Denver
Maxwell Gitegform, Chicago
John T. Giebl, Indianapolis
J. D. M. Griffin, Toronto
Roy R. Grinker, Chicago
Lawrence S. Kuhle, New York
Alexander H. Leighton, Ithaca
Maurice Levins, Cincinnati
LaRoy Maier, Philadelphia
William Malan, Boston
Karl Menning, Topeka
John A. M. Moore, New York
I. Arthur Minsky, Pittsburgh
John J. Murray, Boston
Dwight W. Orr, Seattle
George N. Rhimes, Portsmouth, Va.
P. C. Redlich, New Haven
Norman Reider, San Francisco
W. D. Reed, Los Angeles
Jurgens Ruesch, San Francisco
Lecy J. Saul, Philadelphia
Francis R. Siemer, Augusta
Harry C. Bob, Boston
Edward A. Stroehl, Philadelphia
Emmy Stieve, San Francisco
Charles W. Tidwell, Beverly Hills
M. A. Turek, Paris
Perry David, Wright, Providence

Walker, President
Malcolm J. Farrell, Waverly
SECRETARY
February, 1944