In the past two decades the National Institute of Mental Health has supported more than 3,100 research projects investigating various aspects of schizophrenia. In 20 years the Institute's program dealing with schizophrenia has grown tremendously. Nine projects with an expenditure of $113,400 were supported in 1948. By 1958 the Institute's spending on schizophrenia had grown to $4.8 million. In fiscal year 1968 more than 300 research projects were supported which, in addition to spending in training programs and in the Community Mental Health Centers, resulted in a total expenditure of more than $12 million. The projects range from electron microscopic studies of brain cells to large epidemiologic surveys; from studies of abnormal urinary amines to abnormal family communication patterns; and from studies of the effects of tranquilizers on the monkey midbrain to usefulness of these drugs in particular types of patients.

Despite these efforts schizophrenia remains the most challenging and devastating major mental illness. More than 200,000 Americans are presently hospitalized with this disorder. It is estimated that at least 2 percent of persons born in 1960 will have an episode of schizophrenia sometime during their lives. Because of the magnitude of the problem and the expansion of the Institute's program the need for a focal point within the National Institute of Mental Health to coordinate its efforts was recognized. With this as its major goal the Center for Studies of Schizophrenia was formed in 1966. Until August 1968, however, its missions continued, as before, to be handled by a number of people throughout various divisions of the Institute. At that time the author was appointed as Chief of the Center, thereby bringing its various missions into a single office.

As a “coordinating” center within the Institute the Center for Studies of Schizophrenia does not conduct its own research programs but operates across division lines to coordinate and stimulate programs in schizophrenia. Primary administrative responsibility for these programs remains in other NIMH units. Thus, the Clinical Research Branch (of which the Center is a part) in the Division of Extramural Research Programs will continue to review applications for grant support of clinical research relating to schizophrenia. The Applied Research Branch in that Division retains administrative responsibility for its programs relating to schizophrenia. Training grants will continue to be the responsibility of the NIMH's Division of Manpower and Training, while the Division of Mental Health Service Programs will continue to administer support programs for improving in-hospital treatment and staff training (the Hospital Improvement and Hospital Staff Development Programs).

Rather than assume responsibility for these programs, the Center coordinates them. Its aims are to: 1) serve as a focal point for NIMH activities in schizophrenia; 2) analyze and evaluate current research and related program developments in this area; 3) stimulate and develop programs of research, service, demonstration and training pertaining to the psychological, social and biological aspects; 4) recommend the extent to which such means as research and training grants, contracts and conferences should be used to develop and support these programs; 5) collaborate with organizations outside the Institute to facilitate program development; and 6) stimulate communication of information through consultation and development of conferences, committees, and publications.

A major initial goal of the Center is to facilitate communication between the broad areas of interest represented by various research, training and service efforts throughout the country. In February the Center sponsored a three-day workshop that focused on current problems in research and training in schizophrenia. Recent research developments were conveyed to professionals engaged primarily in training, and new directions in training were discussed with those engaged primarily in research. There was opportunity to discuss a variety of problems of mutual interest and to look at complementary approaches. An additional goal of this meeting was the stimulation of interest in schizophrenia as a clinical entity.
Conferences of this type and the publication of the Bulletin are activities that are critical to the functioning of the Center. Until now, progress in schizophrenia seems to have been impeded by fragmentation, conflict, and isolation of "schools" within the fields of research, training and treatment. Conferences and the Bulletin are intended to provide a forum for the exchange of information and eventual rapprochement between mental health professionals who hold diverse points of view.

In formulating its long-range programs, the Center conducted an intensive review and analysis of recent developments in Institute-supported activities in schizophrenia. Three areas were tentatively identified as meritng special attention: The diagnosis of schizophrenia, its etiology and prevention, and its treatment.

**Diagnosis:** A primary step in progress against any disorder rests on the ability to diagnose it reliably. The problem has been particularly vexing in schizophrenia, where individual clinicians vary widely in the nature of their training and in the breadth of their concepts of what represents schizophrenia. Research progress depends on achieving greater agreement in diagnosing this illness. Merely making a yes or no judgment with regard to the presence or absence of schizophrenia may be too gross and subjective an approach. Instead we hope to encourage a focus on the descriptive dimensions of schizophrenia to obtain, where possible, a terminologic consensus and to develop more meaningful subtypes than those so far identified. When agreement is not possible we would at least like to be able to specify more precisely those aspects of the diagnostic process which are particularly difficult to rate reliably. In conjunction with the Psychopathology Section of the Clinical Research Branch, the Center is developing films and video tapes which can be used in delineating and clarifying some of the dimensions of schizophrenia. Subsequently we hope to be able to aid the field in arriving at a more precise terminologic definition of these dimensions. In turn, the use of these video tapes and films for training and research purposes will improve diagnostic reliability, making it possible to compare results across studies.

**Etiology and Prevention:** At present, most clinical research focuses on the already manifest and diagnosed schizophrenic. This approach, whatever the theoretical bias of the investigator, has a major methodologic problem: It is not possible to unequivocally determine the direction of causation for any differences found. That is, the investigator cannot know whether his findings are the cause or the result of the schizophrenia. Longitudinal prospective study of children at relatively high risk for the development of schizophrenia should make it possible to deal more adequately with this chicken-egg question. To stimulate work in this area the Center has contracted for a monograph to review the literature on children vulnerable to the development of psychopathology; it has also sponsored a small workshop focusing on the methodologic issues in such longitudinal prospective studies. If some of the technical difficulties inherent in these timely and important studies can be overcome they will provide much more reliable evidence about the etiology of schizophrenia. Furthermore, with this type of knowledge available, appropriate preventive intervention can be designed and undertaken.

**Treatment:** Although the areas previously described are crucial to an eventual understanding of the complexities of schizophrenia, the primary concern of the individual patient and his family is treatment. Over the past decade great advances in treatment have resulted from the introduction of the psychopharmacologic agents. After nearly 15 years' experience with drugs—such as chlorpromazine—it has become clear that these drugs do not "cure" schizophrenia. Despite the control of symptoms provided by tranquilizers there are still significant numbers of patients who do not leave the hospital and many of those who do leave continue to be functionally impaired. Furthermore, it has been shown by recent more sophisticated studies that there are a substantial number of patients who are not at all helped by drugs. Finally, the proliferation of Community Mental Health Cen-
ters, under the aegis of the Division of Mental Health Service Programs, will mean that many patients formerly hospitalized will be maintained in the community, where control of medication is more tenuous. These factors make further systematic study of various types of non-somatic treatment especially important. Recent research findings will be used in the development and study of special milieus and groups, and in modifications of individual psychotherapy for the treatment of acute schizophrenia. Each modification will need to be studied as to its comparative efficacy, its usefulness as adjunctive to drug treatment and its possible application in particular situations or specific types of patients. One philosophically unconventional development of particular interest is the view of schizophrenia not as a medical "disease" with its "defect" implications, but rather as a developmental crisis through which some individuals must be helped to attain possible higher subsequent levels of integration and functioning. This view of schizophrenia—as part of a developmental process—could have important implications for present treatment philosophies; it deserves adequate empirical study as one type of specialized non-somatic treatment.

The Center will also press for changes in the existing institutional system and the development of new types of facilities for the treatment of schizophrenia. It is important for treatment centers to be small enough, flexible enough, and have sufficient personnel to allow the individualization of care so that "warehousing," with its attendant desocialization and push toward chronicity, is minimized. If the cost of schizophrenia to society is going to be decreased this particularly complex and difficult aspect of the problem must be given constant consideration.

In addition to giving special attention to the areas outlined above, the Center for Studies of Schizophrenia will continue to serve its various other functions. In its ongoing critical overview of the field the Center will look for specific sub-areas which seem especially promising or underdeveloped and therefore in need of stimulation. Through conferences, workshops and publications, the Center will provide a vehicle for the discussion, integration and dissemination of findings reported by widely separated investigators. The Center will also provide information and/or consultation to individuals and institutions with regard to NIMH programs in schizophrenia, research strategies and recent developments in the field.

In forming the Center for Studies of Schizophrenia in 1966 the National Institute of Mental Health gave formal recognition to the need for a balanced approach to man's most complex and enigmatic mental illness. While the Center's programs are still in the formative stage, its overall objective is clear: To serve as a focal point for the facilitation, coordination and stimulation of research, training and service efforts to conquer this major public health problem. Ensuring proper evaluation, integration and dissemination of the results of these efforts is a fundamental part of the Center's function.

What has been described here represents our present thinking of how to fulfill these responsibilities. It should be interpreted as describing potential directions rather than firm plans. We welcome suggestions on how the Center might be of most help to the scientific and lay community interested in schizophrenia.
RECENT BOOKS ON SCHIZOPHRENIA

Several recently published books may be of interest to those working in this field. They are:


