

"SERVICES
for
EXCEPTIONAL
CHILDREN"

Proceedings of the 1956
Spring Conference of
The Woods Schools, held
in Indianapolis, May 11 and 12

Sponsored by

THE WOODS SCHOOLS
For Exceptional Children

RESIDENTIAL

NON-PROFIT

LANGHORNE

PENNSYLVANIA



WILDWOOD—One of the fourteen major buildings of The Woods Schools

... THE WOODS SCHOOLS

LANGHORNE

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THE WOODS SCHOOLS, founded in 1913 by the late Mrs. Mollie Woods Hare, is internationally known in the special education field as a private, non-profit organization which has achieved consistent expansion both in facilities and services for mentally retarded and emotionally disturbed children. Edward L. Johnstone, a recognized leader in special school administration, was named president of the Schools in 1953, directing a staff of more than 400. Under his administration the Schools today provide a widening range of services for the child with special problems, from nursery level through adulthood. Separate facilities are also available for adults requiring extended residential care. Each year a Summer Camp program is conducted in a wood-and-lake area of the grounds.

Located at Langhorne, Pennsylvania, a residential community in the southeastern part of the state, The Woods Schools is just nine miles southwest of Trenton, New Jersey, twenty-four miles northeast of Philadelphia and seventy miles southwest of New York City. The campus is

spread over 375 acres of historic Bucks County, and offers the children a variety of outdoor life and experiences throughout the year.

The purpose of The Woods Schools has been and will be to teach the exceptional child—the slow child, the child with behavior problems, the child with reading or speech difficulties and the like—to meet the problems of everyday life; to make normal adjustments; to acquire sources of satisfaction for the present, as well as for later years, and to know the joy of achievement and the personal happiness of successful living.

NEW RESEARCH, TREATMENT CENTER

Dr. William C. Adamson, well known child psychiatrist, directs the new Child Study, Treatment and Research Center which stresses diagnoses, treatment and training for the child with mental and emotional difficulties. The Center represents a broad expansion of an existing program for clinical investigation, research and training of professional personnel, in cooperation with the University of Pennsylvania's School of Medicine, the Children's Hospital of Philadelphia, the Pennsylvania School of Social Work, and the Philadelphia Child Guidance Clinic. Continuing inquiry into the causes, treatment and prevention of retardation and psychological disturbances is emphasized at this medical, psychological and educational Center.

*For Complete
Catalogue
or other Literature . . .*

Write:

THE WOODS SCHOOLS

A Non-Profit Residential School, Founded 1913

EDWARD L. JOHNSTONE, *President*

LANGHORNE

PENNSYLVANIA



DR. ADAMSON



DR. DUHL



DR. DUNN



MR. JOHNSTONE

"SERVICES *for*
EXCEPTIONAL CHILDREN"



DR. HIRSCHBERG

PROCEEDINGS *of the*
1956 SPRING CONFERENCE
THE WOODS SCHOOLS



DR. KIRK

In collaboration with the
Indiana University School of Medicine
and the
Division of Mental Health of Indiana



DR. DOWNING

May 11 and 12, 1956
INDIANA UNIVERSITY MEDICAL CENTER
Indianapolis, Indiana



DR. NURNBERGER



DR. THOMAS



DR. MAHONEY



DR. MORGAN



DR. KAMM

ABOUT THE PROGRAM

An Acknowledgment

We should like to reiterate here the words of appreciation uttered at the Spring Conference to so many people who participated in the planning and in the program itself. Representatives of the collaborating agencies were more than generous with time and energy in the tasks involved in perfecting arrangements. Those who appeared in the program accepted their respective assignments seriously, and they offered thoughtful and significant contributions to the audience present and to the far-flung reading audience which will receive this volume.

In addition to those noted above, we should like to express our thanks to a number of people who helped in initial planning of this Spring Conference but who were prevented, in view of other commitments, from attending. These include Dr. Richard L. Masland, Research Director, as well as certain staff members of the National Association for Retarded Children; Dr. Grover F. Powers, professor emeritus of Pediatrics at Yale University Medical School and chairman of the NARC Scientific Research Advisory Board; Dr. Wayne H. Holtzman, Director of Research, the Hogg Foundation for Mental Hygiene, University of Texas, Austin, Texas; and, in addition to program participants from the Indiana University School of Medicine, our sincere thanks go to Dr. Paul Lurie, Director of Pediatric Cardiology Research, Dr. Malcolm Holliday, Director of Pediatric Biochemistry Research, and Dr. Alex T. Ross, **Chairman** of Department of Neurology of Indiana **University**.

Topic:

"Services For Exceptional Children"

The tremendous reawakening of interest in the problem of exceptionality among children in this country has put dynamic forces to work in this field. Augmenting the more-than-century-old efforts of professional persons in the United States in behalf of the retarded, the mentally deficient, the emotionally disturbed and those with related disorders, has come the influence of lay activities largely through the medium of organized parents' groups.

Not only in the United States, its possessions, and in Canada, but in many foreign countries as well, new and impelling attention is being given to realistic planning of programs which will help provide new opportunities for the ungifted child and accord him his rightful place in society. In addition, the tools of research, study and scientific inquiry are being employed to explore causes, means of prevention, and methods or amelioration of these conditions.

It may be well, at this time, to scrutinize services available to exceptional children so that we not only take stock of our current situation but so that we project our thinking in terms of extension of such services in order to determine their most effective roles in long term planning.

It is appropriate that this 1956 Spring Conference of The Woods Schools is held under the aegis of three agencies representing three major areas of interest applying to the exceptional individual. The School of Medicine of Indiana University logically represents the area of scientific and professional interest; the Division of Mental Health of the State of Indiana is properly concerned with the broad problem of community programs and services; The Woods Schools through its Child Study, Treatment and Research Center is representative of those interested in more complete diagnoses, residential treatment and care of exceptional children from infancy through adulthood.

Printed copies of the Proceedings of this Conference will be distributed on an international basis. Individual copies will be available, upon request, to persons interested in this broad field of endeavor.

THE PROGRAM

FIRST SESSION

SCHOOL OF MEDICINE AUDITORIUM MAY 11, 1956
8 P.M.
EDWARD L. JOHNSTONE, President of The Woods Schools, *Presiding*

INVOCATION

THE REVEREND WALTER R. HAND, Ph.D., Executive Secretary,
Indiana Council of Churches

GREETINGS

J. D. VANNUYS, M.D., Dean, Indiana University School of Medicine
MRS. JOY H. ROTH, Board of Trustees, The Woods Schools

"HOW INDIANA IS MOVING FORWARD IN THE MENTAL
HEALTH FIELD"

MARGARET E. MORGAN, M.D., Commissioner, Division of Mental
Health, State of Indiana

"SERVICES FOR EXCEPTIONAL CHILDREN"

LLOYD DUNN, Ph.D., Coordinator of Special Education, The George
Peabody College, Nashville, Tennessee

SECOND SESSION

SCHOOL OF MEDICINE AUDITORIUM MAY 12, 1956
10 A.M. to 12 O'CLOCK NOON
OTTO HUGHES, Ed.D., President, Indiana Association for Retarded
Children, Inc., *Presiding*

INVOCATION

THE VERY REVEREND VICTOR L. GOOSSENS, Pastor, Church of St.
Mary's, Indianapolis

"COMMUNITY SERVICES FOR THE RETARDED CHILD"

ALFRED KAMM, Ed.D., Director of Community Services, Division of
Mental Health, State of Indiana, Indianapolis

"RESIDENTIAL SCHOOL SERVICES FOR THE EXCEPTIONAL
CHILD"

J. COTTER HIRSCHBERG, M.D., Director, The Southard School, The
Menninger Foundation, Topeka, Kansas

THIRD SESSION

SCHOOL OF MEDICINE AUDITORIUM MAY 12, 1956
2 P.M. to 4:30 P.M.
C. KEITH HEPBURN, M.D., President, Indiana Neuropsychiatric
Association, *Presiding*

INVOCATION

RABBI MAURICE GOLDBLATT, Rabbi Emeritus, Indianapolis Hebrew
Congregation

PANEL DISCUSSION:

"THE ORGANIZATION AND DEVELOPMENT OF RESEARCH
PROGRAMS IN THE FIELD OF EXCEPTIONALITY"

Special Announcement by Mr. Johnstone, Upon Introduction of the Chairman

Chairman:

WILLIAM C. ADAMSON, M.D., Director, The Child Study,
Treatment and Research Center
The Woods Schools

Panel Members:

LEONARD J. DUHL, M.D. Professional Services Branch, National In- stitute for Mental Health, Bethesda, Mary- land	SURVEY PRESENTATION
JOSEPH J. DOWNING, M.D. Acting Director, Mental Health Research Institute, Department of Mental Hygiene, State of New York, Syracuse, N. Y.	PROJECT PRESENTATION
DAVID H.H. THOMAS, D.P.M. Superintendent, Cell Barnes Colony for Mental Defectives, St. Albans, Herts, Eng- land	DISCUSSANT
SAMUEL A. KIRK, Ph.D. Professor of Education, Institute for Re- search on Exceptional Children, College of Education, University of Illinois, Urbana, Illinois	DISCUSSANT
JOHN J. MAHONEY, Ph.D. Assistant Dean, Indiana University School of Medicine, Indianapolis	DISCUSSANT
JAMES J. GALLAGHER, Ph.D. Institute for Research on Exceptional Chil- dren, College of Education, University of Illinois, Urbana, Illinois	PROJECT PRESENTATION
ALFRED KAMM, Ed.D. Director, Community Services Division of Mental Health, State of Indiana, Indian- apolis	DISCUSSANT
JOHN I. NURNBERGER, M.D. Professor and Chairman, Department of Psychiatry, Indiana University School of Medicine, Indianapolis	DISCUSSANT

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FIRST SESSION

SCHOOL OF MEDICINE AUDITORIUM
INDIANA UNIVERSITY, INDIANAPOLIS

MAY 11, 1956
8:00 P.M.

EDWARD L. JOHNSTONE, president, The Woods Schools, *Presiding*.

INTRODUCTION TO THE FIRST SESSION

CHAIRMAN JOHNSTONE: Good evening, ladies and gentlemen. The 1956 Spring Conference of The Woods Schools will please come to order.

The invocation will be given by the Rev. Dr. Walter R. Hand, executive secretary of the Indiana Council of Churches.

DOCTOR WALTER R. HAND: Lord, Thou hast been our dwelling place in all generations, before the mountains were brought forth, wherever Thou hast formed the earth and the world.

We pause in the beginning of this service to acknowledge Thee in the great adventure of living and learning and understanding, and we pray that the words of our mouths and the meditation of our hearts may be acceptable in Thy sight, O Lord, our Strength and our Redeemer. Amen.

CHAIRMAN JOHNSTONE: Distinguished speakers and honored guests:

As presiding officer for this opening session, my function is limited and I will be brief. We welcome you as co-workers in what I believe to be one of the most fruitful and rewarding fields of human endeavor in the history of mankind. This Spring Conference, devoted to the interests of exceptional children, is simply a manifestation of the tremendous national and international effort to award such as these, their rightful place in our social order. I wish to acknowledge with very deep gratitude the most excellent cooperation and support of the collaborating agencies, the Indiana University School of Medicine and the Division of Mental Health of the State of Indiana. I know of no past instance when we of The Woods Schools have experienced a more cordial and more friendly reception in arranging for our annual meeting. My associate, Mr. MacDonald, in his enthusiasm today, said: "These are all such wonderful people, I think we'd better move to Indiana!" Dr. Alfred Kamm, Assistant Dean John J. Mahoney and Mr. Marc Waggener well deserve to be especially mentioned for their activities on local arrangements and for capturing the support of their colleagues. Our thanks go to

press and radio representatives for the effective publicity in advance of this conference. Many of you, I know, saw the fine article in last Sunday's magazine section of The Indianapolis Star and also the full-page article in the Medical Center's quarterly Bulletin. Newspapers in the entire area have shown appropriate interest in the subject which we will here consider.

It is fitting at this time to express appreciation to our speakers and to other participants. All are people with extraordinarily heavy work loads and heavy commitments, and this is due to their abilities and to their professional competence. We are grateful to them for responding to our invitations to appear and are proud to present them to you.

I must also say that it is very satisfying to see certain parents of some of our pupils at The Woods Schools here.

To bring' you the greetings of Indiana University School of Medicine, it is my real privilege to introduce Dr. John D. VanNuys, dean of the School of Medicine, here in Indianapolis. Dr. VanNuys is the son and grandson of physicians and a descendant of John Findley Crowe, founder and first president of Hanover College. A native of Henry County in Indiana, he did his undergraduate work at Wabash College and received his M.D. degree from Indiana University in 1936. His post graduate training as intern and resident was taken at Robert W. Long, William H. Coleman and James Whitcomb Riley Hospitals of Indiana University Medical Center. After serving as medical director of the university hospitals for five years, he was named dean of the School of Medicine in 1947. Enrollment, teaching staff, research activities and physical facilities have shown marked improvement under his administration. Dr. Van Nuys . . .

DR. JOHN D. VanNUYS: President Johnstone, distinguished guests, and ladies and gentlemen:

I want to thank your president for that most cordial introduction. I feel that there has been a great deal of collaboration between his Public Relations Department and our Publicity Department at Indiana University, and to both of them I owe thanks.

It is a very real pleasure to welcome you to the Indiana University Medical Center, and I am joined in the extending of this welcome by the president of Indiana University, Dr. Herman B. Wells, who wished that he could be here with you. He hopes to be on the campus tomorrow, but his very heavy commitments at this time of year, foundation meetings, and various other functions prior to commencement, make it impossible for him to be with us on many occasions.

I want to mention that we are very pleased in being selected as the place for The Woods Schools conference. We think it is a mark of real distinction for us and a great opportunity for our faculty and staff. We expect to learn a great deal from these deliberations and we are pleased to have you as our visitors and guests.

Historically, the State of Indiana pioneered much of the work that is going on in this specialized field of education and medical research. Back sixty or more years ago there was a distinguished head of the Fort Wayne State School by the name of Alexander Johnson, and when Mr. Edward Johnstone came here to make arrangements about this meeting earlier in the year, I inquired about the possible relationship. Well, I should have known, of course, Alexander Johnson was his uncle. And I might add that Mr. Johnstone's father, Edward R. Johnstone, headed the widely known school at Vineland, New Jersey, for many, many years. We were all very interested in this year's program because long ago Mr. Alexander Johnson put into Indiana a program far superior to anything that had ever appeared in this specialized field west of the Allegheny Mountains. In fact, much of the work was pioneered in Fort Wayne under Mr. Johnson's guidance and was copied by Letchworth Village and other well known eastern institutions and schools in the early part of this century. Therefore, it is most fitting that you should come here again and that you should hold your meeting here again in this field, because, after a lapse of fifty years when we more or less went along a path of least resistance, once again we are pioneering in the entire mental health program and specialized education **fields.**

It is very gratifying to say that two of the State Schools in this state have recently been cited for their excellency and their progress in the last two or three years under the guidance of our distinguished Commissioner of Mental Health and under the far-seeing program of the Governor of Indiana.

Once again, we think this points up the opportunity of the School of Medicine in our teaching program, and in our research work. We are currently involved and pleasurably involved in developing an Institute for Psychiatric Research, a building provided by the State of Indiana and to be under the sponsorship of the faculty and research division of the School of Medicine. We must do more than provide medical attention to these people; we must strive toward all of the preventive measures that can be brought into being.

It is a pleasure to have you here. I am here as pupil tonight. I know I shall enjoy every bit of the deliberation. Thank you.

CHAIRMAN JOHNSTONE: When the chairman of the Board of Trustees of The "Woods Schools, Mr. Leon J. Obermayer, discovered that he had accepted another invitation to speak in conflict with the meeting this evening, he made it very clear that his inability to appear here was a bitter personal disappointment. My own regret that he could not bring you the greetings of The Woods Schools' trustees is assuaged by the presence of a Board member who substitutes for him.

Mrs. Joy H. Roth typifies the sort of dedicated, interested and skilled person who sees fit to perform active service on our Board. Mrs. Roth not only serves on the Board of Trustees of The Woods Schools but is associated with a number of humanitarian programs on state and national levels. She is a member of the Board of Directors of the National Association for Mental Health and president of its New Jersey State Association. She also serves on the NAMH Executive Committee and is chairman of the Committee on Organization Membership. A member of the Board of the New Jersey Welfare Council and formerly of the New Jersey Neuropsychiatric Institute, she also devotes time to her own community's church, school and Red Cross activities.

I am pleased to present Mrs. Joy Roth.

MRS. JOY H. ROTH: Mr. Johnstone, Dr. VanNuys, Dr. Morgan, ladies and gentlemen:

I know that Mr. Obermayer sincerely regrets his inability to be present tonight, but his misfortune is my good fortune. I consider it an honor and a pleasure to have been asked to represent the Board of Trustees of The Woods Schools at this conference and to bring their good wishes to you. On their behalf, may I express sincere thanks and appreciation to the Indiana University School of Medicine and the Division of Mental Health of the State of Indiana for their cooperation, interest and assistance in making this conference possible.

I would like to review briefly the history and objectives of The Woods Schools for the benefit of those of you who may wish to know more about it.

The Woods Schools was founded in 1913 by *Mollie Wood* a teacher in the Philadelphia public school system. Because of her interest in children who were not benefiting from the regular academic course but were in need of special teaching, she resigned from the public school system and established The Woods Schools for exceptional children. She felt these children needed individual attention and individual approach and belonged in special classes.

In 1921, The Schools moved to the present site and gradually became a leader in this field.

In 1948, Mollie Woods Hare decided to create a non-profit corporation to conduct The Schools. She transferred all the buildings, grounds and assets, worth at that time about \$2,500,000 to the corporation.

Since 1948, The Woods Schools has been run by a Board of Trustees.

Mrs. Hare stated as her objectives at that time: "To provide the best care and training anywhere in the world for the exceptional child; to develop through research more effective methods and techniques; to stimulate others to do the same, and to make these techniques and methods available for use everywhere."

In 1952, The Woods Schools was most fortunate in the election of Mr. Edward L. Johnstone as president. Mr. Johnstone is the son of the late Edward R. Johnstone, who was for many years head of Vineland Training School in New Jersey and a distinguished pioneer in special education. Mr. Johnstone himself had been superintendent at Woodbine for nearly twenty-five years.

In 1953, The Schools embarked on a program directed toward rehabilitation, as well as continuing the program for those who will require long-term care and supervision. We have, through a dedicated Board and a loyal and interested staff, been able to devote efforts toward the rehabilitation of children, to minimize the difficulties as distinct from providing merely custodial care.

In recent years, progress and accomplishments have been evidenced in the stability and growth of organization and staff, in the high calibre of staff, and a relatively small turnover of personnel.

Today, 390 children are enrolled and parent interest and cooperation are apparent at all times.

In 1956, Mrs. Mollie Woods Hare died, leaving additional assets to the school, continuing her dedication to a cause to which she had devoted her life.

Although in 1934 the Child Research Clinic of The Woods Schools was established to develop a broader understanding of the exceptional child and to gather scientific information on improved techniques for dealing with the problems of the exceptional child, now, in 1956, we go on to further goals and progress. For many years, several devoted and dedicated Board

members pondered the future and objectives of The Woods Schools. The first public announcement of these plans will be made tomorrow, as is noted in the program of the third session. Thus it can be seen ours is not a static policy but the Board and Staff all are dedicated to working for new and progressive programs in the light of present day needs.

CHAIRMAN JOHNSTONE: Thank you, Mrs. Roth.

Now I would like to introduce Commissioner Margaret E. Morgan who comes before you in a dual capacity.

First, she will bring greetings from the Division of Mental Health of Indiana. Many of you are well aware of the progressive work being done in this state in the field of mental retardation under her administration. Its impact has been felt throughout the country.

Second, she will address us in the place of Governor George N. Craig, who found it impossible to cancel a previous commitment in New York. I might add that the Governor has asked to be kept informed about the conference and to receive copies of the proceedings. **He** has sent his greetings in these words: "With every good wish for success."

I am honored to present Dr. Morgan who will most appropriately speak on the topic "How Indiana is Moving Forward in the Mental Health Field."

Dr. Morgan is a native of Austin, Indiana, and was appointed to the position of Commissioner of Mental Health by Governor Craig in July of 1953. In this position, Dr. Morgan is administratively responsible for the programs at the seven state mental hospitals, the two schools for the mentally retarded and the Indiana Village for Epileptics. She is a graduate of Indiana University and the University of Maryland School of Medicine. Her psychiatric and further training was taken at the Psychiatric Institute and at the Bellevue Hospital in New York City. In 1950, she assumed a full-time position at Indiana University School of Medicine and is now assistant professor of psychiatry, attending psychiatrist of the Indianapolis General Hospital and consultant in psychiatry and neurology at the Veterans' Administration Hospital in Indianapolis. Her position also includes the administration and distribution of federal funds under the Federal Mental Health Act.

"HOW INDIANA IS MOVING FORWARD IN THE MENTAL HEALTH FIELD"

By

MARGARET E. MORGAN, M.D.

DR. MARGARET E. MORGAN: Thank you, Mr. Johnstone. Certainly I **am** delighted to be here this evening and I wish to welcome you on behalf of George N. Craig, the Governor of the State and on my own behalf as well.

I'd like to tell you a little bit about the program as I see it in Indiana. We feel that we have made very definite improvements and have stepped **forward** in the last few years. As you probably know, we have two schools **for** the mentally retarded in Indiana, the Fort Wayne State School and the Muscatatuck State School. Actually, we have similar patients also residing at the Indiana Village for epileptics. We not only have a famous son and a **famous** father in Mr. Johnstone, but I am sure all of you know Dr. VanNuys' **father** was the superintendent of the Indiana School for Epileptics for a **great** many years. Instead of changing the name now to the New Castle **State** Hospital, I feel that the institution should have been named as a **memorial** to Dr. VanNuys' father, who did such outstanding work there.

First when I saw the conditions that existed in our two schools—Muscatatuck and Fort Wayne—it was immediately obvious that we had to **do** many things before we could begin what we would call a real rehabilitation **program**. We had to take emergency steps to supply needed things, and by **that** I mean the really basic needs of life such as food, clothing, and **adequate** shelter. The Budget Committee, fortunately, made this money **available** to us and we could act immediately.

After that, we had to move fast to recruit employees. In a very short **time**, **as** a matter of fact, in less than a year, we hired over 350 employees **for these** institutions. Now, that is a lot of people, and it is not easy to find **them**. I am sure that you of The Woods Schools are probably no different **than** we are here in Indiana in trying to recruit and hold this much-needed **personnel** and I'm sure it's the same throughout the United States. We all **know** that we simply do not have enough trained people. This money was **spent** primarily for an increased number of doctors, nurses, psychiatric social workers, psychologists, and, of course, the bulk went for psychiatric **attendants**.

Not only did we increase the number of personnel here for the patients **but the** quality as well. We had to move, too, in the direction of badly

needed equipment. We couldn't even give basic medical treatment to many of our patients because we did not have such things as X-ray machines and other laboratory facilities necessary to the examinations. We didn't have enough sheets, blankets, towels, and so forth to maintain any kind of what we would call decent sanitation.

For example, in 1952, the total cost to provide services for each patient in each of our schools was \$1.68 a day. Now that figure has been raised until today it is \$3.63.

Our records show that we have increased our personnel by almost 100 per cent in such categories as doctors, nurses, social workers and psychologists. We have not only added full-time people, but at all of our institutions we now have part-time consultants, and I don't believe there is a field, a specialty in medicine, that is not covered by the consulting physicians, both from the Medical Center here and from the local community.

I would like to say that we have had only the finest cooperation from the Indiana University School of Medicine on everything we have tried to do. Many of their people, their doctors, have given us free time, and as much time as they possibly could.

I have been talking about money, and you may well ask whether it can be shown that by spending more money on a program you can increase your discharge rate and your convalescent leaves. Of course, the answer is a definite yes.

Now, although we know that we are dealing with chronic illness, and one does not always expect results in a very short time, I would like to give you some figures on what has happened in less than three years.

We increased our discharge rates from the schools by 100 per cent; we increased our convalescent leaves by another 100 per cent; and we increased our leaves of absence by 94 per cent. Certainly there is no magic in this. Although it is a very impressive result, I feel that it is simply applying what we know about rehabilitation of patients and, of course, we know it does not equal the results which could be reached in some of the schools that have more money than most of our state institutions have.

At first, our institutions were in such a serious predicament that we had to give most of our attention, as far as the Division of Mental Health was concerned, only to the hospitals and the schools. But now we have been able to help in the establishment of more child guidance centers in the communities and to assist in setting up special classes for the mentally retarded.

Another forward step, which I think the last Legislature should be congratulated upon is a family-care program in Indiana. That means that we can approve a certain home and place a patient who is well enough to leave the institution in this home. There is supervision, of course, by the local hospital or school. This not only provides a more normal existence for the patient and helps in the adjustment between independence and the hospital. It also releases beds in the hospital or school, so that we can house other patients who participate in the rehabilitation program.

We know that we have come a long way in Indiana in the past few years. We also know, like every state in the United States, we have a long way to go. I feel that the most acute problem that we have now in Indiana is the problem of the delinquent defective. We have no proper facilities for such patients, and I think it is a question that is bothering not only us, but the courts and the juvenile centers as well. I don't know whether that subject is going to come up at this meeting, but I certainly know that I would be interested to hear any ideas which you might have.

I want to say that I appreciate the contributions of The Woods Schools, the School of Medicine, and members of my own staff who have made this meeting possible. I know that you will find the discussions and the deliberations most worthwhile.

CHAIRMAN JOHNSTONE: Thank you very much, Commissioner Morgan.

This kind of record that Dr. Morgan has pointed to is tremendously encouraging to those of us who think in national, and sometimes even international, terms. I think that your state is to be congratulated not only on its program, but also, I might say, on its commissioner. I wonder whether one of the first qualifications for a commissioner is learning to pronounce Muscatatuck?

We come now to that very important point in the program in which we introduce the person who is called the "keynote speaker." We anticipate that Dr. Lloyd Dunn will offer the framework about which this conference is built. His is a major assignment, which we do not particularly envy him. But we are deeply indebted to him for accepting the assignment.

I'd like to tell you just a word about Dr. Dunn.

In addition to serving as Coordinator of Special Education at George Peabody College for Teachers in Nashville, Tennessee, Dr. Dunn is also president of the Tennessee Federation of the International Council for

Exceptional Children, and president of Region 7—that's the Southeastern States—of the American Association on Mental Deficiency.

He has taken an active part in a United States Office of Education study concerning the "Qualifications and Preparation of Teachers of Exceptional Children," serving as assistant director. The purpose of this project was to explore the basic skills and abilities needed by teachers of handicapped and gifted children. He also has served as project director for the Southern Regional Education Board on a study of the "Need for and Training of Special Education Personnel in the South." This study has pointed up the acute shortage of qualified teachers in this field.

Dr. Dunn has taught school for a period of eight years, serving in both rural and urban communities. He was a high school principal for three of these eight years. He holds his Ph.D. degree from the University of Illinois. His major emphasis of study was in the education of handicapped and gifted children, with extensive work in clinical psychology. His best known research has been with deaf children and the mentally retarded. Dr. Lloyd Dunn. . . .

"SERVICES FOR EXCEPTIONAL CHILDREN"

By

LLOYD DUNN, Ph.D.

DR. LLOYD DUNN: Over the years, these conferences have played a unique role in championing the cause of society's "forgotten folk." The conferences have been especially appropriate since, to quote Dr. Salvatore DiMichael, the retarded "are a group whose disability may never lift a single one of their number from the shadows of obscurity. Intelligence, a necessary if not exclusive ingredient of fame, is denied to them either at birth or early in life. No prominent figure stands among them to dramatize their cause before the world. The blind can point to Helen Keller, a distinguished writer; the deaf to Beethoven, a composer-genius; the epileptic to Julius Caesar, a soldier and statesman; the poliomyelitic to Franklin D. Roosevelt, a nation's president and wartime leader. But these individuals had the gift of great intelligence, which reduced their physical or emotional disability to the status of an incidental factor in their lives. The mentally retarded have no such source of inspiration and challenge. They cannot point to one of their number and say: "See, what extraordinary good he has done for humanity!" It would seem to be their inescapable fate to be obscure.

"The blind, the deaf, the epileptic, the polios—these can furnish from their own groups the leadership to demand of society recognition and a fair chance. But the cause of the intellectually subnormal must be championed by individuals not of their group." (1)

The Woods Schools has provided this leadership over many years. It is the hope of those of us who have availed ourselves of their services that they will continue to do so for many years to come.

The theme of this year's conference is "Services for Exceptional Children." In the announcement of the program, it states that this topic was chosen to give us an opportunity "to scrutinize existing services so as to take stock of our current situation, and so project our thinking' into the future."

Such a purpose is a challenging but sobering one. It has long been a diversion of historians to observe man's curious blindness to important and even revolutionary events on the contemporary scene. Almost any age and society provide numerous examples of wisdom after the event. Long after gunpowder was invented, moated castles—more picturesque than strategic—continued to be built in Europe. Long after the advent of

mechanized tools of war, cavalry were retained as part of the army. In our present day, it is probable that none of us can fully comprehend future implications of current events. A century or so hence others may wonder at our astonishing short-sightedness. In spite of our human weaknesses, this year's theme seems especially appropriate since we appear to have reached a new high in national and international concern for handicapped persons.

Because of my training and interest, I should like to restrict my comments to the area of mental retardation. I realize that, by omission, this is a grave oversight of many other areas of exceptionality implied in the topic: for example, the socially maladjusted and the emotionally disturbed. However, these latter fields will be given major emphasis tomorrow morning when Dr. Hirschberg of the Southard School addresses you. I should further like to restrict my observations to the following three topics: (1) an historical overview of the growth of services for retarded persons, (2) an examination of the extent to which present-day services are meeting existing needs, and (3) a discussion of my perception of future trends in the education, treatment, and role of the retarded members in our society.

AN HISTORICAL REVIEW OF THE TREATMENT OF THE RETARDED

Many of us are inclined to be impatient and dissatisfied with our progress in serving the retarded. However, when viewed in the total context of history, much has been accomplished in a relatively short period of time. Professional services are less than 150 years old in Western Civilization, and just over a century old in this country.

Prior to the year 1800, society's record was one of the "most pathetic chapters in the history of man." (2) In ancient times, Spartan parents exposed their handicapped offspring to the elements to perish. In the Middle Ages, the retarded were exploited as "fools" or "jesters" for the pleasure of the lords and their ladies. During the Protestant Reformation most people thought handicapped persons were "possessed with the Devil," and therefore the common treatment was "to beat the Devil out of them."

In spite of these interpretations of the teachings of Luther and Calvin, the Church provided the one bright spot for the weak, disabled, and retarded prior to 1800. Most religions of the world emphasized compassion for the less fortunate. From the 13th Century and on, the churches of Europe began rather systematically to provide asylums for the less fortunate members of society, including the intellectually handicapped. No attempt was made at treatment or education. These "asylums" were intended solely to

provide a sanctuary for those unable to survive in a cruel and competitive society.

The unfortunate status of the retarded was further complicated by the philosophy which influenced the thinking of most professional persons of that day. I am sure that everyone in the audience has heard of the "nature-nurture controversy" which is still with us. It concerns the relative effects of heredity and environment on growth and development of the individual. Before 1800, the "naturalists" predominated. They believed that heredity was the primary cause of mental retardation and that it was incurable. This pessimistic and defeatist point of view precluded treatment and education. The prevailing belief was "Once retarded, always retarded; nothing can be done."

In retrospect, we see that, until 150 years ago, professional persons completely ignored the intellectually subnormal. Whatever care there was, was provided by the Church.

One of the first professional persons to enter this field was a French physician, Jean Itard. He rejected the teachings of the "naturalists" and turned to the teachings of John Locke of England and Jean Rousseau of France. They believed that learning came only through the senses and that all persons could develop the ability to learn if given adequate stimulation. The Golden Rule was: "Practice makes perfect." This school of thought was the opposite of the "hereditarians" and "naturalists." Its followers were "environmentalists" and "sensationalists." From approximately 1800 to 1805, Dr. Itard took charge of a boy of twelve, captured in the Forests of Aveyron and diagnosed by the great physician Pinel as severely retarded. He taught him intensively, emphasizing sense and motor training. His efforts produced marked changes in the behavior of this boy, though he was unable to teach him to talk or to live independently in Parisian society. While Itard viewed his experiment as a failure, students in the field of retardation regard it as the first scientific attempt at training a retarded child. It marked the beginning of a new movement where professional personnel assumed responsibility from the Church for the retarded. It also marked a radical change of emphasis from incurability and custodial care to treatment and education.

Only last month, I re-read Itard's reports. While 150 years old, they are as modern as tomorrow. His creative and systematic approach to learning warrants reappraisal as to appropriate techniques for training our severely retarded boys and girls.

Residential School Movement: The type of residential school program we have in the United States today can be traced directly to Itard and his work. As has been the case in so many other instances in our history, a social incident and its impact on a single man have set the stage. Just as the emphasis on the manual alphabet and sign language in our residential schools for the deaf can be traced to a visit of Gallaudet to Paris, so our residential schools for the retarded were influenced by the immigration, about 1850, of one of Itard's students, Edward Seguin, to the United States, following some political persecution.

Prior to his arrival in America, he had expanded his teacher's techniques into a complex, systematic, sequence of training which he called the "Physiological Method." At the same time, he established the first residential school for the retarded in Paris in 1837, as part of the famous Bicetre Hospital, to test out his procedures. So, by the time he joined us near the middle of the century, he was recognized as an international leader in the field. In this country, he became the first president of the organization which is known today as the American Association on Mental Deficiency and was responsible for encouraging the development of a number of residential schools in this country. By 1900, residential schools were established in most of the states of New England, the Great Lakes Area, and in California, with a total number of patients approximating 14,000. The Twentieth Century has seen the spread of this movement to almost all states of the Union. The last state to build a residential school was Arizona, in 1952. Today, to the best of my knowledge, only three states are without residential schools. They are Nevada, Arkansas, and West Virginia. Some 125,000 persons of *all* ages are now living in private and public residential institutions; approximately 25,000 are of school age.

Our first schools were begun as experiments to test Seguin's methods and the environmentalist's theories. They were intended as training schools and not asylums. In fact, severely retarded persons were often not admitted; neither were the very young nor the very old. These schools were dedicated to the curing of mental retardation. This curing did not occur.

Today, the purpose of most *state* residential schools has changed radically. Among children, admissions are primarily extremely retarded cases, many of whom will require constant and complete care all of their lives. Among youth and adult cases, admissions are usually only mildly retarded, but present serious social problems.

This changed role has evolved because of many factors. First, experience soon taught professional persons in the field that the extreme claims of the

environmentalists were ill-founded. Second, society was seldom prepared to provide needed funds for professional persons in the quality and quantity needed to provide intensive training programs. Too often states, considering their responsibilities terminated with the construction of elaborate physical plants, were content to see the retarded removed from society and placed in a setting where only custodial care could be provided. Third, professional persons themselves must accept part of the responsibility for the neglect of retardates; until recently, few have been prepared to devote their lives to the study or treatment of this group of citizens. Fourth, a new development began in this country about 1900, aimed at educating a larger and larger percentage of moderately retarded boys and girls through public day schools and classes. Permit me to review briefly this day-school movement.

The Day-School Movement: The first day-class for retarded pupils was established in Providence, Rhode Island, in 1896. Since individual intelligence tests had not been devised at that time, it is likely that this class and others established before 1915 enrolled pupils who were "problem children" because of educational, social, and/or intellectual difficulties. With the advent of efficient psychometric devices, especially the original Stanford-Binet Test of Intelligence in 1916, the practice of making special classes "human dumping grounds" somewhat abated. (Today, more and more school systems are employing psychologists to insure adequate screening and referral practices.)

This has been most commendable, since special day schools and classes have increased fairly rapidly. (3, 4) In 1922, 23,000 retarded pupils were enrolled in such facilities; by 1940 the number had increased to 99,000; in 1953, it was up to 114,000. At first glance, those figures may appear overly encouraging. In actual fact, the general increase in population of the United States somewhat depreciated the extent to which needed services are being extended. Too, these day school facilities are restricted largely to urban communities. Children in rural areas, by and large, continue to be neglected.

Before leaving this discussion of the day school movement, a new development warrants comment. The 1953 survey of the United States Office of Education revealed that almost 5,000 of the 114,000 retarded pupils in day classes were "trainable" children. Very few facilities for this group of pupils existed in day schools before 1953. When these statistics are again gathered, we will find a sharp increase in services to this group of youngsters.

HISTORICAL SUMMARY OF STATISTICS REPORTED TO THE
U. S. OFFICE OF EDUCATION ON SPECIAL DAY
SCHOOLS AND CLASSES FOR MENTALLY
RETARDED CHILDREN

Year	Number of pupils (rounded to the nearest thousand)
1895.....	NIL
1922.....	23,000
1927.....	52,000
1932.....	75,000
1936.....	99,000
1940.....	98,000
1948.....	87,000
1953.....	114,000

SUPPLY VS. NEED FOR SERVICES

In review, then, we see that only 125,000 retarded persons of all ages live in residential schools; of this number only 25,000 are of school age. An additional 114,000 school-aged children with retarded intellectual development are enrolled in day schools and classes. Thus we see that a total of only 100,000 adults and 139,000 school children are enrolled in day and residential schools. (Parenthetically, it might be observed that only a mere handful of pre-school retarded children receive special service. In fact, in 1938, less than 500 were in residential schools.)

How do these existing services compare with our needs?

It is impossible, with present-day information to answer this accurately, since comprehensive prevalence studies are not available. However, it is possible to make some useful estimates of the magnitude of the problem.

If we were to base our prevalence figures on data from well-known individual intelligence tests, approximately 5 per cent of the population have intelligence quotients of 75 or below. However, some more conservative estimates may be more realistic. The following are suggested:

1. Prevalence of persons classified as mentally deficient (both mentally retarded and socially incompetent) among the *total* population (children, youth, and adults) . . . 1 per cent. Source: Dr. E. O. Lewis study for the Royal Commission in England; Dr. Lewis found the ratio to be 1 mildly retarded, to 4 moderate, to 8 severely retarded, persons. (5)

2. Prevalence of "educable" mentally retarded *children* (a more inclusive term than mentally deficient) in need of special education services . . . 2 per cent. (Source: Dr. Elise Martens' estimate from the United States Office of Education. (6)

3. Prevalence of "trainable" mentally retarded children among the *school-aged* population . . . 1/5 of 1 per cent. (Source: The State of Illinois study on trainable children 1954,) (7)

Note: These statistics cannot be summated.

Applying these figures to the appropriate population estimates, the following conclusions result:

(1) Less than 7 per cent of the estimated total number of persons of all ages in the United States classified as "mentally deficient" were reported in residential schools, as of 1954.

(2) Less than 20 per cent of the estimated total number of school-aged children in the United States classified as "educable" mentally retarded were reported in special day schools and classes in the public schools, in 1952.

(3) Less than 8 per cent of the estimated total number of school-aged children in the United States classified as "trainable" were reported in special day schools and classes in the public schools, as of 1952.

These figures must be viewed with caution, since we do not know what per cent of our mentally deficient persons need residential care, and what per cent of our "educable" and "trainable" retarded children need special day schools and classes. Nevertheless, they do help to illustrate society's neglect of her retarded citizens. The picture becomes even more bleak when one bears in mind that these are pooled averages where states and communities with extensive services disguise the complete neglect of others. Many local school systems do not have one special provision for "educable" or "trainable" children. As mentioned earlier, three states do not, as yet, have residential schools.

The situation which prevails in many, if not most states of our Union, is graphically illustrated by a quotation from the Nashville Tennessean of Sunday, April 29, 1956. In it, Dr. C. J. Ruilmann, Tennessee State Commissioner of Mental Health, stated: "There are about 20,000 mentally retarded people in Tennessee. Of these, we estimate 3,300 need institutional care; and we have facilities for only 1200 at the present time." He went on to say that "the legislature has never appropriated funds soon enough to keep construction in line with our population growth." I am sure his dilemma is shared by many other government officials in this country and abroad.

With increased public support likely, those of us vitally concerned with the welfare of the retarded have responsibility for studying their future needs in light of a changing society. We must ask ourselves such questions as the following: What effect will the age of automation have on the retarded? Will the prevalence of mental retardation decrease with medical advances? In case of an all-out war, would there be need for less or more residential school facilities? What are the major barriers today to extending more adequate services to retarded persons?

A LOOK TO THE FUTURE

What effect will the age of automation have on the retarded?

I am sure many of us have thought about this question. In the past, most retarded persons who were able to exist independently in the social order found employment in the unskilled ranks. They succeeded best on assembly lines and in other routine jobs of industry. On the farm, they tilled the soil by hand, and performed other menial jobs about the yard. In the home, they washed dishes, scrubbed floors, and cleaned clothes.

Today, few of these jobs are done by hand. Already automation has reduced the need for laborers on the assembly line. Tomorrow, perhaps only the highly-trained engineer will be needed to turn out a steady stream of automobiles, refrigerators, and television sets. On the farm, complex farm machinery has made it possible for one highly-competent mechanic to perform the work of a dozen men. The machine age has even invaded the home, where washing machines, dryers, dishwashers, electric polishers and cleaners have replaced the maid. Our farms cannot use the services of the slow learner as in the horse-and-buggy age. Even ditch-digging has been taken over by a factory-made giant.

In the past, the intellectually subnormal have been the last to be hired and the first to be fired. In the future, it would seem that automation will reduce their employment opportunities still further. Three implications are suggested: (1) We will need to train more highly our retarded youth if they are to find a place in our increasingly complex society; (2) the training period will need to be extended into the teens, if not the twenties, and (3) in times of unemployment, society will need to support a greater per cent of her retarded population than ever before. If my analysis is correct, we need to begin a plan of action for automation tomorrow. The role of the educator, rehabilitation worker, and others is obvious.

Will the prevalence of mental retardation decrease with medical advances? Few members of the medical profession are prepared to give a simple "Yes" or "No" answer to this question. However, the consensus

appears to be in the affirmative—at least, for the next decade or so. As *Look Magazine's* medical editor, Roland Berg, pointed out recently: "We have been winning the battle against *acute* diseases, but losing the war against *chronic* killers." He goes on to say: "Nor is mortality rate the sole criterion of a people's health. Disease does not always kill, it also disables. And a disabling illness that saps the victim's vitality and impairs his mental, physical, and emotional well-being, is as destructive to a nation's health as the sudden killer." (8)

Since 1900, a "growing fund of knowledge in many sciences" has been directed at solving medical problems created by acute diseases. Smallpox, diphtheria, typhoid fever, pneumonia, tuberculosis and malaria are no longer counted among the nation's greatest killers. But few specific and complete cures have been found for conditions affecting the brain and central nervous system. Most of today's victims of mental retardation, cerebral palsy, and epilepsy will continue to be so afflicted throughout their lives.

In fact, in recent years medical specialists inform us that they have been saving the lives of the weak, disabled, and handicapped who a century ago would have died at birth or at an early age. For example, premature babies have become a major concern. Many who previously would have died now are being saved. Some of these have multiple handicaps, including, mental retardation.

Today, medical progress has upset nature's law of the "survival of the fittest." In our pioneer society of a century or so ago, medical services in sparsely-populated areas were frequently minimal or non-existent. Only hardy and healthy offspring lived to adulthood. Today, medicine saves the lives of many more of our youth than previously. A number of these children are born handicapped or left with a serious sequela from one of the major diseases of childhood.

All of this evidence leads me to conclude that the prevalence of intellectual subnormality will not be significantly less in the foreseeable future, and may be considerably increased, especially in the case of the **more** severely retarded groups.

Lack of adequate social services for our handicapped constitutes today a serious cultural lag. Society has not expanded her services for the handicapped to keep pace with science. As a result, a serious and challenging social problem has developed.

In case of an all-out war, would there be a need for less or more residential school facilities? This question cannot be neglected. Today,

we are spending a king's ransom on A-bombs, H-bombs, guided missiles, and other objects of war—paying minimal attention to plans for the most effective mobilization of our human resources.

The United States has never waged a war where men and women alike were universally conscripted to service. They have never waged a modern war where much of the fighting and destruction was aimed at the homeland. If another war should come, both of these things would be likely to occur. Experience in World War II in Europe taught us that even housewives were needed in industry. Dependent persons were cared for by society on a boarding and residential school basis. If we are to prepare for such an emergency, there must be large expenditures now for suitable facilities in case of an international crisis. Much study is needed to determine the safest construction and locations, if our handicapped dependents are to be protected. Surely such preparations are even more justifiable than our present-day expenditures in the armament race.

A cautionary word may be in order at this point. Judging from past experiences, residential services will be needed for only severely retarded adults and dependent children. In World War II, industry "desperately sought the contributions of the mentally and physically disabled." (1) In an all-out mobilization of manpower, society becomes "aware of the potentialities which lie unrecognized in an era of peace, in the thousands of mentally retarded youth and adults in the community."

What are the major barriers today to extending more adequate services to the retarded persons? This is a difficult question to answer, since many barriers exist. However, the past few years have demonstrated that two of the major ones may well be crumbling. We have seen marked and positive changes in the attitudes of society toward the retarded persons. Too, we have seen an increased willingness of legislators to appropriate funds for needed services.

Perhaps today the two major barriers are: (a) the need for an adequate supply of trained professional workers, and (b) the need for increased research evidence upon which to develop services.

A considerable number of existing treatment facilities for the retarded are inadequately staffed. Many professional personnel presently employed in the field are inadequately trained in mental retardation. This manpower shortage cuts across all of the specialists. There is a shortage of competent educators, competent psychologists, competent medical personnel, competent social workers, and competent attendants. Only spurious attempts are being made today to alleviate this critical shortage. The enlargement of training

facilities will not, in itself, provide the answer. We must increase the attractiveness of working in this field.

Necessary, also, are numerous research studies in a number of related fields—educational, psychological, medical, and sociological, as well as in the basic sciences. These will require competent researchers, costly equipment, and a better understanding among professional persons themselves of the complexity of the problem and the need for a multi-disciplined attack on it.

While there is a need to study many immediate and practical problems, this is not enough. Perhaps our greatest emphasis should be on accumulating knowledge in the basic sciences. Long-term investments in biology, physics, chemistry, and physiology may make greater contributions than short-term conquests of specific conditions. New modes of treatments are usually made possible only "when research in the basic sciences has yielded enough knowledge to make them possible."

However, it is unlikely that research will find a cure for intellectual subnormality. Every society since the beginning of time has had retarded members in it. Our society of the future is not likely to differ in this regard. Science may be able to reduce the magnitude of the problem, but that will be all. We cannot expect miracles.

This places on us responsibility for expanding existing services in light of our present perceptions of tomorrow's society. Not a single state in the Union has a well-planned and well-coordinated total program for its retarded citizens.

It seems to me this overall service program should include:

- (1) adequate diagnostic services through community mental health clinics.
- (2) provision of counseling, social work, and consultant services for parents of retarded boys and girls.
- (3) development of community day centers for trainable children.
- (4) qualitative and quantitative improvements in residential facilities.
- (J) extension of special day schools and classes for educable mentally retarded children.
- (6) sheltered workshops for the semi-independent group.
- (7) vocational training, placement, and supervisory services for retarded youth.
- (8) community guidance and recreation centers for retarded adults.

Much progress has been made in recent years in developing plans for a comprehensive range of services for the retardate and his parents. Much remains to be done to bring these plans to fruition.

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CHAIRMAN JOHNSTONE: Thank you very much, Dr. Dunn. I see now that there should have been no apprehension on the part of anyone who planned this program as to the manner in which you could keynote the series. I am convinced that you have uttered many truths and that you have set the course not only for the continuation of the sessions which will be held here but for the overall thinking of those of us who are engaged in this field of endeavor.

In closing this meeting, I would like to quote just one paragraph, which was really touched upon by Dr. Dunn, from an address made by Dr. George Tarjan, a contemporary in this field. This address was given at the annual convention of The American Association on Mental Deficiency held in

Richmond last week. Dr. Tarjan said: "We are beginning to recognize that the most accurate single medical diagnostic term, even if combined with a meticulous measurement of intelligence, does not fully describe the complex human being the *mentally deficient* person is. We know today that if progress, needs or problems are to be measured comparatively in groups of the mentally deficient, several other factors must be taken into account. Physical capabilities or limitations, superimposed emotional problems, special vocational aptitudes, environmental social atmosphere, characteristics of other family members, the absence or presence of community resources, the history of delinquency, and many other factors are as important in the classification of a given patient as his nosological diagnosis, his I. Q., his age and his sex."

Again, Dr. Dunn, I thank you for setting the stage. I thank all of you for your presence here, your interest in what all of us are undertaking to do.

We now stand adjourned.

(The meeting was adjourned at 9:40 P.M.)

SECOND SESSION

SCHOOL OF MEDICINE AUDITORIUM
INDIANA UNIVERSITY, INDIANAPOLIS

MAY 12, 1956

OTTO HUGHES, President, Indiana Association
for Retarded Children, Inc., *Presiding*

INTRODUCTION TO THE SECOND SESSION

PRESIDENT JOHNSTONE: Ladies and gentlemen, I'd like to call this second session to order and to introduce to you our presiding officer for this session, who, in turn, will introduce the speaker. Before doing so, I should like to mention some geographic facts. Those of you who attended the meeting last evening will recall that one of the speakers introduced Dr. A. F. Deverell—and I hope I have pronounced that right—from Saskatchewan as being one of the guests from the farthest distance. I think you might be interested to know that just before I left Langhorne, I received a notation to the effect that acceptances had been received not only from persons here in Indiana but also from Washington, D. C, from Kentucky, Illinois, Maryland, Michigan, Missouri, New Jersey, New York, Pennsylvania, Tennessee, and Wisconsin. I would like to ask representatives from those various areas to identify themselves, but I feel it is important that we get along with our program. Loyalty to an old cause demands, however, that I ask a man who has been particularly active in the parents' groups in New Jersey to stand and identify himself, Mr. Martin Gross, who is here with Mrs. Gross.

Your chairman and presiding officer this morning is Dr. Otto Hughes, who is president of the Indiana Association for Retarded Children, Inc. He is a resident of Bloomington.

Outstanding in his activities in behalf of mentally retarded children, Dr. Hughes is widely known in the field of education and social welfare.

Beginning as a teacher in a one-room school, he served later as principal of elementary and high schools and as superintendent of Columbus, Indiana, city schools. He moved from assistant professorship of Education at Indiana University to head; of the university's Campus Laboratory School in Bloomington, the position he now holds.

He is a church school superintendent, a Rotarian, and a past president

of the Indiana Schoolmen's Club. After graduation from Franklin College, he earned his master's and doctor's degrees at Indiana University.

Dr. Hughes is a contributor to many magazines and journals in this professional field. Dr. Otto Hughes . . .

CHAIRMAN OTTO HUGHES: Mr. Johnstone, fellow colleagues on the platform, and friends of retarded children:

If you will please stand, the Very Reverend Victor L. Goossens, pastor of the Church of St. Mary's of Indianapolis, will give the invocation.

THE VERY REVEREND VICTOR L. GOOSSENS: Almighty God, source of all goodness and peace, we invoke Your aid for all these who are dedicated to the training of children. Pour out on them the full richness of Your blessing and of Your peace. Guard them and the children committed to their care. Drive away the power of evil over them. Fill their teachers, their preceptors, and their directors with a spirit of love, of knowledge, and of wisdom, and of reverence for them. Strengthen their pupils of the future with Heavenly grace, so that they may grasp with their minds, may treasure in their hearts, and may carry out in their actions all things that will bring them to eternal happiness with Thee. Amen.

CHAIRMAN HUGHES: Although the Indiana Association for Retarded Children is a very young organization and lacks the experience of organizations like the one we visited a few days ago in Dayton, Ohio, we are tremendously encouraged at the widespread interest and enthusiasm upon the part of parents and other interested people throughout Indiana in backing the association in the program that it has set for itself in the immediate future.

I was amazed to know that so many, many locals in the State of Ohio had so many very constructive programs that were being carried out, and I am sure that if Indiana in the next few years can possibly engender enough interest and enthusiasm in both local and nationwide support in the Indiana Association for Retarded Children, we will run them a pretty close race.

It is my privilege to present to you this morning two speakers, the first of whom is Dr. Alfred Kamm, Director of Community Services, Division of Mental Health, for the State of Indiana.

Dr. Kamm came to Indiana in February, 1954, with a distinguished record in the field of mental health and welfare. As Director of Community Services for the Indiana Division of Mental Health, he has been particularly

active in helping to expand programs and facilities in behalf of retarded children.

He served in the Illinois Department of Public Welfare prior to coming here and has had wide experience in state and private training schools, in settlement house work, and in community organizational planning. And I might say parenthetically that the people in Ohio immediately asked me, when they learned I was from Indiana, how Dr. Kamm was, and they expressed to me how grateful they were for the very fine work that he had done with them, particularly in Dayton, in helping to set the foundation work for the fine things that are going on in Ohio at the present time.

A graduate of the University of Illinois, Dr. Kamm took his advanced degrees at Columbia University and New York University. He is a member of numerous professional associations and his writings on recreation, community problems, and mental health have appeared in many magazines.

It is my very great pleasure to present to you Dr. Alfred Kamm, who will speak to you on the subject "Community Services for the Retarded Child." Dr. Kamm . . .

"COMMUNITY SERVICES FOR THE RETARDED CHILD"

By

ALFRED KAMM, ED.D.

DR. ALFRED KAMM: This audience indicates how much interest has grown among our people to gain knowledge about the numerous facets of mental retardation. There is another way to illustrate this point. Some of you know that members of our 1955 Legislature have said that the bill passed by them for retarded children received more public support than any others that were on the calendar.

These advances are partly due to increased knowledge and partly to improved attitude. By this, I mean that many more people in Indiana now realize that retarded children are God's children as much as any of the others. They are no longer "things" to us. When we say "educational opportunities for all children within the limits of their capacities," we mean just that. In Indiana, the retarded can now look forward to something more than being forgotten, institutionalized, or sterilized.

Much of the progress made here has been duplicated by other states. However, there is probably one important difference, namely, Indiana has achieved a high level of integration in these services for retarded children faster and at lower cost than most other states. Using the experience of others and teamwork have made this possible. Those of us in the Division of Mental Health have tried to carry our share of this work. When Dr. Margaret E. Morgan, our Commissioner, took office, she realized that community services had been neglected and gave her full support to the development of this part of our state mental health program, as well as to the improvement of the institutional part.

Not many people know what a community program or a state program should offer to retarded children. Quite a few people still think of mental deficiency as a disease entity. Instead, it is a condition made up of social, psychological, and physical inadequacies. These deficiencies make the person largely dependent on others. For this reason, a total program of community services for retarded children should include such items as medical services, schooling, recreation, home care, diagnostic services, parent education, day care centers, sheltered workshops, private and state schools, public school classes, job training, research, and training of teachers. Most of these services are now available here; special ones are under development.

There are numerous resources available to any state interested in the development of a better program for retarded children. Which ones helped Indiana? Arbitrarily, I have grouped these resources as follows: state help, parents' associations, federal, voluntary agencies, and professional associations.

May I digress for a minute to say that, in my opinion, a major problem of urban living is in knowing where the help is available, if and when it is needed. Time and time again, I have seen instances where help was practically at the elbow of those who needed it, but they were unaware of these resources. Public education is now an important function of our Division. We have been informing our people through various media about the available help. This is one of the roles we have played in services for the retarded. This is the specific reason why we compiled lists of services for retarded children in Indiana and have released them to everyone who might be interested.

Now let's go back to the first category of the five major sources of help which joined forces to create a coordinated program of services for retarded children. These are not being treated in the order of their importance.

State agencies which have participated in this work are the Departments of Public Instruction, Public Welfare, and Corrections; the Division of Health and Preventive Medicine; the Division of Mental Health, the Indiana University School of Medicine. The Indiana General Assembly should not be overlooked for recognition. It has played an important role in passing legislation which made possible much of the growth achieved. Of course, the approval of such bills by our Governor and his general support of mental health programs has been one of the primary motivating forces.

A law passed in 1947 made it possible for the Department of Public Instruction to set up a Division of Special Education and classes for retarded children. State reimbursement funds were made available to help carry the excess costs. These costs are computed as the difference between the expense of educating a retarded child in a special class and that of educating a child in the regular school classes. By 1953, the funds were inadequate to pay these excess costs, due to the larger number of classes, general increase of costs, and decrease of the source of supply for these special funds.

In the fiscal year 1953-54, the Division of Special Education had enrolled 1607 children who were mentally handicapped. In 1954-55, the figure was 1663.

Additional funds were voted and improvements in the laws were made by a bill passed by the 1955 Legislature. As a result, quite a few new classes have been established and, of course, the total enrollment is higher. But

accurate figures are not available at this time. Today, we have twenty-six communities sponsoring 135 public school classes for the retarded. Indianapolis has 60 such classes. Most of the 135 classes are for the educable group; about 5 are for the trainable group.

City and state directors of special education have not only carried the responsibility of the classes under their supervision; they have also offered much other help such as consultant services to parents and other groups, public education, teacher recruitment for private classes, and in-service training opportunities. Our educators have accepted this challenge and opportunity to be of service to more children.

The parochial schools have also joined this movement. Two are now offering classes for retarded children, plus related services for their parents. An increasing amount of attention is being given to special education in the parochial schools.

Another service of the Department of Public Instruction which offers help to retarded persons is its Division of Vocational Rehabilitation. It serves persons who are physically or mentally handicapped and are over sixteen years of age. Its purpose is to train these persons for remunerative employment. The service is gathering momentum.

This is a good time to mention an important project being co-sponsored by the Division of Vocational Rehabilitation, the Division of Mental Health, Department of Public Welfare, the State Employment Service, the Indiana Hospital Association, and the Veterans' Administration. The project is an Institute on the Rehabilitation of the Emotionally and Mentally Handicapped which will be held on May 23, 24, and 25. This, too, will be helpful to the retarded.

In 1954, an unusual institute was held at the Muscatatuck State School for workers in the Department of Public Welfare. These workers came from the counties represented by many Muscatatuck children who had been selected because of the possibility of their adjustment to community living. The problems of retarded children were reviewed and the cooperation of these workers was solicited to help these children with their community adjustment problems while on convalescent leave. Helping children to adjust to community living is one of many services offered by the Department of Public Welfare. Public Assistance also reaches the mentally deficient.

Until about a year ago, the Department of Corrections confined its interests to the few retarded who were committed to one of its prisons, farms, or training schools. When the Council on Children and Youth was transferred to it, these interests were increased considerably.

Through its numerous bureaus, the State Board of Health offers many health services to retarded children and their families. The Bureau of Maternal and Child Health is one which has been particularly interested in retarded children. Through it, the Tippecanoe County Medical Society, and the City of Lafayette, plans are being made for a demonstration project in the form of a diagnostic and guidance center for retarded children of that county. Also, quite a few meetings have been held with public health nurses to review the health, home, and personal problems of retarded children. These nurses often direct families to sources for help on special problems. The State Board of Health Film Library offers films on retarded children. They, too, offer consultant services on health problems related to these children. Dental health and communicable diseases are two other areas of service beneficial to them. Many other indirect services are offered to these children. A current project is a Survey of Rehabilitation Services headed by Dr. A. C. Offutt, Commissioner of this Division. Specific attention is being given to the existent and needed services of this type for the retarded. The survey is being co-sponsored by the Health and Welfare Council of Indianapolis and Marion County.

The Division of Mental Health probably stands to gain most from the 1953 Reorganization Bill which set up the new Health Department. A modern state mental health program is now feasible. Progress in some directions came immediately in great strides. When the new administration took over, the two state school programs were, themselves, in a seriously retarded condition. All of their services were at marginal levels, according to accepted standards for such schools. Time does not permit detailing the many deficiencies. Suffice to say that huge obstacles had to be cleared in basic services before actual program improvement could begin.

You already know that these handicaps were rapidly overcome with better leadership, more personnel, larger budgets, and public support. Just two years later, the Muscatatuck State School was awarded an Honorable Mention by the American Psychiatric Association in its 1955 hospital competition. At the same time, the Fort Wayne State School has also been advancing its program. What I am saying here in these few words is that an important segment of the total program of services that should be offered by every state, namely, its institutions, was quickly brought up to a level worthy of professional recognition. We still have overcrowding and waiting lists but no one can deny that the basic services have been greatly improved. Extraordinary progress was made in the general areas of medical services, training, education rehabilitation, and community relations. We are proud to add that the Village for Epileptics has just been awarded an

Honorable Mention by the American Psychiatric Association in its 1956 hospital award competition. You should keep this in mind because the Village looks after many retarded children. Of necessity, this is only a thumb-nail sketch of the progress in our institution services for retarded children.

Other help offered by the Division of Mental Health comes from another direction, generally called community services. The content of this program usually includes some combination of the following services: mental health education, consultant services to communities or individuals, volunteer services, training programs, clinical services, and family care. Most of these activities are new to our state program.

The educational work and consultant services involve all kinds of community work to bring laymen and professional people up to date about mental health, mental hospitals and related services. They require watching for opportunities to bring out the mental health aspects of any given community problem; giving groups the benefit of our training and experience as they become interested in improving or expanding their community mental health programs; and liaison work with many types of agencies, organizations, and associations. All of these and other functions have been used for retarded children. More specifically, these services have included the following: talks to parents' associations and to groups wanting to organize, correspondence about the many problems that come up in such an organization, public education, finding teachers, movies about retarded children, literature, sources for help, developing a state conference, attending committee meetings, personal consultations, coordination of activities, preparation of reports, and, of course, the use of the telephone. These services to people make up a strong line of communication, good will, and public support. There is good reason to believe that our help made it possible for groups to become organized more quickly, with smaller expenditure of time, effort, and money.

Here is an angle about educational services that is worthy of major emphasis. Our state schools and mental hospitals are rapidly becoming important educational centers, as well as highly specialized treatment and training centers. Few people realize the significance of this development. These new services also include many of the specific ones just enumerated as coming from our Division. In addition, the institutions open their doors to touring groups and professional visitors; hold conferences, institutes, and workshops to meet the needs of selected groups; displays and exhibits are arranged. Obviously, these many new services add much to the heavy burden of responsibility carried by a superintendent and his staff. Additions to

the budget have been required for this increase in services to the people of Indiana.

Our latest list of psychiatric clinics in Indiana shows eighteen such services in operation. These services are mostly for children, and, of course, this includes the retarded. The clinics have given diagnostic service, treatment in some cases, parent education, and consultant services to parent groups and individuals. Additional funds for the current biennium were voted by the 1955 Legislature to expand this program. Good progress is being made with this work.

Both of our state schools have Directors of Volunteer Services. Here is an amazing development of the past few years in the whole mental health field. Thousands upon thousands of men, women, and children are giving voluntary help of one kind or another to mental institutions. People are doing this for our state schools to such an extent that a Director is required to coordinate these activities. Volunteers give personal service to patients and make contributions in kind to the institutions. Personal service to patients means visiting with them, reading to them, writing letters, playing with them, helping with parties, sight-seeing and shopping trips, etc. The contributions include funds for special purposes and gifts such as TV sets, record players, good used clothing, books, games, toys, music records, and many other items. Such service is a helping hand that gives any institution program a big lift. Not only are patients helped but it is a morale booster for employees, too.

The latest addition to our Division is the Family Care Program. Again, the Legislature made this possible by the allocation of funds to finance it. Through this program, more patients, including the retarded, will have an opportunity to return to community living. Foster homes will be used for these placements. You good people who are interested in retarded children can help us very much with this program by letting us know about foster home prospects. We'll take over from there.

I have already pointed out that research is receiving its share of attention. This program will move into high gear when the Institute of Psychiatric Research, now under construction on this campus, is completed.

As far as I know, there is only one private residential school in Indiana. Of course, quite a few are available to us in other states. Since these services will be discussed in a separate paper, I will say only that such schools are a Godsend to parents who can afford this class of service for their children and themselves.

The co-sponsorship of this conference by the Indiana University **School of Medicine** is an example of its active interest in the field of mental deficiency. Its job is the education of medical personnel. This conference is one way to help do that for medical students, practitioners, and related medical personnel such as nurses. Those of us who are close to the problem of retardation realize the great importance of such leadership by the Indiana University School of Medicine.

Last year, the Scientific Research and Advisory Board of the National Association for Retarded Children expressed great concern over the medical profession's "apparent lack of interest and awareness of the importance of mental retardation."

Many of the parents of these children hold grudges against their physicians because the truth was withheld. Here is a great opportunity for physicians to help families in distress. Not only should an early diagnosis be made but the parents should be helped to understand the problem. Some counselling should be given by the physician, but to avoid extra costs to the parents and to save the doctor's time, certain community agencies are qualified to help with the job of parent education and the relief of this emotional and psychological shock. A prognosis of hopelessness should be avoided. Physicians should be familiar with the parents' association of their locality and use it whenever possible to help educate new parents.

The Dental School also deserves to be mentioned at least in this brief manner, for the consultant services it offers to the Muscatatuck State School.

I repeat, we are fortunate to have this active interest of the Indiana University School of Medicine. Much of the credit, of course, belongs to the fine leadership of its dean, Dr. J. D. VanNuys.

So much for the state departments that have teamed up to develop and improve services for retarded children.

Some of you have heard the story about Whistler, the well-known artist of our Mother's Day painting. He returned home one evening and found his mother at the door. Whistler is reported to have said: "Why, Mother, you're off your rocker!"

Many people thought that parents of retarded children were also "off their rocker" when they began to set up their own classes and their own parents' associations. Probably the most frequent comment they heard was: "It can't be done." This comment was a big help to the parents because it made them work harder than ever to prove it *could* be done.

In a paper such as this one, it is impossible to tell you much about the importance of the parents of these children in the development of a full state and community program. How do these groups accomplish so much on a local, state, and national basis? Part of the answer is that their members are dedicated to their task and work hard at it. The other part is made up of many factors such as leadership, financial sacrifices, group action, and professional support. Their first concern is to do something for their children. Much attention, though, is given to education of laymen and professional personnel. Self-education is also stressed because parents must have knowledge to achieve their purposes. Out of this come other gains such as better understanding and insight about human nature and themselves.

May of 1950 is a date to remember, for that is when The St. Joseph County Association for Retarded Children was organized as the first of our county associations. By September of 1954, we had 16 such groups, plus 2 that were organized that year by our state schools. Now we have 31 county groups and 7 state school groups. According to Joe Newman, of South Bend, the Indiana Association for Retarded Children was organized on May 4, 1954, by four county associations. He was elected as its temporary chairman and served in this capacity until September of last year. At the meeting of last fall, a constitution was adopted and an election of officers was held. As you know, the chairman of this session, Dr. Otto Hughes, was elected president of the association.

The St. Joseph County group is also the first one to establish a class for the retarded. Today, there are 24 such groups sponsoring one or more classes. The Indianapolis Noble School is the largest of these with 124 children enrolled. Other groups have also had classes in operation, but they went out of business when their public schools took over. Most of these classes include a few of the trainable children. These are the ones with an I.Q. under 50. The educable ones have I.Q.'s of approximately 50 to 70.

In our larger cities, these parents groups are realizing that they are in business for a long time. They will always have the responsibility of looking after the children who cannot be enrolled in the public and parochial school classes because of age limitations, i.e., too old or too young, and who also do not belong in our state schools. This calls for long-term planning on their part. Our Marion County Parents and Friends of Retarded Children (includes Indianapolis) has been giving this matter careful study recently in cooperation with our Health and Welfare Council. A special report of this study is available to those interested in such long-term planning.

Now we can turn to our third group of helpful resources, the Federal

agencies. A recent issue of that excellent newspaper called "Children Limited," published by the National Association for Retarded Children, gave a complete outline of Federal agencies offering some kind of service to the retarded. Of course, you can take it for granted that we got help from the National Association for Retarded Children.

My brevity here is not intended to belittle Federal help. Who knows which help does the most good? At any rate, we have received help from the Children's Bureau, the National Institute of Mental Health, and the U. S. Office of Education.

Let's turn to the fourth group of resources.

A community the size of Indianapolis and its environs with a population of about 600,000 has scores of voluntary agencies. All are interested in serving some good civic purpose. To get their help for neglected areas of health, education, and welfare, someone, somehow must create an awareness in them and help steer their course of civic activity toward these new areas. Proportionately, other communities have these resources available to them, also.

We are fortunate to have a Health and Welfare Council with high calibre leadership to serve as coordinator and central clearing-house for the many activities and problems that are inherent in such a complex group of agencies. No one could make an estimate at this time as to the number of such groups that have given a lift to the program for retarded children. All I know is that the help keeps increasing.

The following professional associations have been useful to us: Indiana State Medical Society, Indiana Neuropsychiatry Association, American Association on Mental Deficiency, American Psychiatric Association and several others including, of course, The National Association for Mental Health. Directly and indirectly, they have played a role in the development of our program through their journals, consultant services, and literature. One example of this help is the mental health survey of Indiana made by the American Psychiatric Association in 1954. The survey included services for the retarded.

As to all these helpful resources, I am sure that others should have been mentioned. The time element made that impossible.

We are all aware that teachers are as important a part of this program as they are for the education of other children. We cannot have classes without them. To these exceptional children, the teacher is even more im-

portant than for the better student who can learn in spite of the teacher. The retarded ones learn because of the teacher's help.

The teacher shortage extends to this field. How can we relieve this bottle-neck to an expanding program? We have tried to solve it by stepping up teacher training programs and our in-service training programs. Four teacher training centers in Indiana are offering full curriculums for students who wish to go into special education. They are Indiana University, Indiana State Teachers' College, Butler University, and Ball State Teachers' College. Purdue University also has practically a full training program. Are we increasing our supply of teachers for retarded children? Not enough. For various reasons, students are not signing up for these courses to become teachers of retarded children. Other colleges and universities are offering a few courses about exceptional children but not full training programs.

For many good reasons, in-service training is receiving an increasing amount of attention. A recent check brought out several new developments on this point. The Logan School of Mishawaka held an all-day workshop last month for teachers of retarded children. Purdue University is holding a workshop in June on Brain-Injured Children; the retarded are included in this program. Butler University is sponsoring a Special Education Workshop in July. Indiana University is offering a credit course in cooperation with the Muscatatuck State School. The annual conferences of the State Teachers' Association offer helpful programs on special education and elementary education. Quite a few other forms of in-service training are being used. These are opportunities which help teachers to improve themselves. No other single activity could possibly strengthen the school services as much as a good on-going program of in-service training.

Many people, including professional workers, will miss the significance of this program for retarded children to community mental health. Obviously, the new services are helpful to the children receiving them. What about the other members of their families? Anyone who has worked closely with these parent groups for any length of time and who possesses even average powers of observation can testify to the changes that also take place in them. Education through participation in the many activities sponsored by these associations cannot help but have an influence upon the parents and their other children.

These community mental health values can be spelled out briefly as follows. The most significant change is in the fact that the parents feel better. A dream has come true for them! This better feeling, which means

more happiness and more inner satisfactions, is precisely why there is a relationship to and great value for mental health in this program. When people feel good, there is little need to be concerned about emotional and psychological disturbances or psychiatric disorders. This program helps remove feelings of guilt, hostility, hopelessness, and rejection; it relieves the load of frustrations being carried by members of the family; it decreases tensions; it reduces prejudices, bigotry, and ignorance. This all adds up to happier, healthier, and more useful citizens for our communities.

These benefits are one important reason for the increasing emphasis on community services by state departments of mental health. This kind of help is the nearest thing we have to the prevention of mental illness. Such help removes sources of infection in our communities which create disturbances through the variety of negative feelings and attitudes previously mentioned. With the removal of these infectious spots in our communities, personality strength, and resistance to emotional and psychological disturbances are increased. As these "forgotten groups" are helped, community mental health improves.

I should like to emphasize that this paper about Indiana's services for the retarded child is not meant to set up our program or our ways of achieving these goals as models for others to follow. The variable factors in each state and in each community make this quite inadvisable. Instead, this presentation does attempt to show that the old attitude of "nothing can be done for these children" can and should be discarded. It shows the value of group action in community and state affairs. It shows that the traditional obstacles of money, personnel, and facilities can be overcome by our public schools, as well as our private groups who want to sponsor classes for these children. It shows, most of all, that the everlasting stick-to-it way of our people brings victory over all problems.

Judging from what has been achieved, and the potentials of the present program, I feel safe in saying that the future never looked brighter in Indiana for retarded children and their families.

My closing thought is expressed for me by Emily Dickinson, who said: "If I can stop one heart from breaking, I shall not live in vain."

CHAIRMAN HUGHES: Thank you very much, Dr. Kamm.

And now, the next speaker on our program is Dr. J. Cotter Hirschberg.

Dr. Hirschberg is Director of the Department of Child Psychiatry at The Menninger Foundation, Topeka. The department's facilities include the

Menninger Children's Clinic, providing psychiatric and neurological evaluation and treatment for children of all ages, and the Southard School, a residential treatment center for emotionally disturbed children of elementary school age.

A native of Kansas City, Missouri, he received his medical degree from the University of Chicago School of Medicine in 1940 and his psychiatric training at Colorado Psychopathic Hospital, University of Colorado Medical Center, Denver. He was certified in psychiatry by the American Board of Psychiatry and Neurology in 1947.

Before joining the staff of The Menninger Foundation in 1952, Dr. Hirschberg was director of the Child Guidance and Mental Hygiene Clinic in Denver. In addition, he was professor of Child Psychiatry at the University of Colorado Medical Center, and lecturer in psychiatry in the University of Denver Department of Psychology and School of Social Work.

It gives me great pleasure to present to you Dr. Cotter Hirschberg, who will speak to you on the subject of "Residential School Services for the Exceptional Child." Dr. Hirschberg . . .

"RESIDENTIAL SCHOOL SERVICES FOR THE EXCEPTIONAL CHILD"

By

J. COTTER HIRSCHBERG, M.D.

DR. J. COTTER HIRSCHBERG: The children who are brought for residential treatment display a wide variety of difficulties, most of the problems being severe, and most of the children posing dilemmas to the diagnostician. These children have a poor tolerance for group living; they are unable to be members of the community group. These children have few or impaired inner controls, which leave them at the mercy of their anxiety and the impulsivity and aggression which this arouses. Their perceptions of life are blurred and they act out their problems with poor judgment of the effects of their behavior on other people or the consequences for themselves. These children have enormous difficulty in responding to people and in developing relationships which could assist them in achieving control, insight, or understanding of their behavior. These children have many sexual problems. They are children whose impulses lead to self-destructive behavior. Their sensitivity to external stimuli is sometimes so great that they seem to be constantly in a panic or constantly disorganized. Some of them are so withdrawn from reality that they seem to be out of contact and their behavior seems bizarre.

Summaries of the diagnostic evaluation of two of these children will illustrate what these children are like:

Frank was seven years old at the time of his examination and he was referred because of hyperactivity, various tics and mannerisms which changed from time to time, and marked difficulty in socializing with his peers. The hyperactivity was noticed during his first year of life; in addition, he was sensitive to noises and quite early seemed fearful.

Frank, a slender, pensive, preoccupied boy, moved cautiously and he submissively entered the evaluative procedures. When introduced to the examiner he said rather emphatically, but to no one in particular, "I'm not me." He was hyperactive, restless, distractible, evasive, negativistic and willful. He seemed to want to withdraw from demands that were "too complicated" and at the same time he was very much concerned about the correctness and adequacy of the responses he was giving. At times he seemed to derive much satisfaction from his rather violently aggressive behavior. Movements were often slow and had a deliberate, protective quality about them, but periodically were punctuated with

gleeful jumping, associated with flapping movements of his hands and shrill, soprano-like sounds. This served as a marked contrast to his pensive meticulousness when engaged in play. His speech had a sing-song kind of inflection and he frequently abbreviated sentences; for example, "What this for?" Objects were repeatedly fingered and smelled. In spite of the degree of his illness, he was able to function rather efficiently on structured material, to derive satisfaction from many kinds of activities, and to differentiate, fairly adequately, reality from fantasy. These tests indicated Frank was of at least high average and possibly of superior mental ability, and that he had a severe emotional maladjustment, some aspects of which suggested a schizophrenic-like type of adjustment. Findings suggesting this were his tendency to withdraw; some fluidity in his thinking; the intensity, content and inclusiveness of his fantasizing; the fluctuations in levels and his functioning which were especially apparent in his drawings; his negativism; and the usual degree of tension and anxiety. He seemed to be very much afraid of his own extreme aggressivity and of sexuality, bodily harm, the aging process and death, and he was preoccupied with bodily functions. Emotional control was rather poor and tensions led to outbursts of aggressive behavior.

Particularly striking was his use of "distant devices" and the way he appeared to stay in contact, which was actually not by turning for support or help, but by alert watchfulness, constant testing the other (Am I correct?), and asking questions to which, when asked back, he knew the answer. His defensive self-protection was shown by his responses, "Don't question me" and to Rorschach cards "Nothin', nothin'." Figuring, counting, arithmetic, as well as taking stock of possible dangers and ways out were ways to preserve the little safety that he had. There did not seem to be any real "relationship" established nor did there seem to be any real appeal for help, but only his on-guard behavior.

People and personified animals on the Thematic Apperception Test had an empty, inhuman quality, and there was an almost total lack of direct, appropriate affect expression. He told a story of an old lady who died in a movie, but who was "an actor" and the death was "funny". The figure drawings had an eerie quality, little stick figures with strange faces (these were not at all like the poorly differentiated, immature drawings of young children, but more like distorted skeletons devoid of flesh and life, and produced by individuals who have advanced further and regressed). Suggested also was the unreal, disrupted, and somehow

shadowy and disintegrated concept of self—"A boy in rabbit's clothes" and a man who is hated so much by a witch that it made him look "real ugly"—and "looks like he has two heads."

His fantasies expressed aggression in primary and distant form. It came through in primitive, elemental symbolism; colliding worlds, eruptions of lava, cyclones and tornadoes, Fantasy problem solutions of a wish-fulfilling kind were absent unless one counted the dubiously optimistic response that for a cut finger one might go to a hospital and have it "sewn back on." Most outcomes were concerned with explosions, death and destruction. It was not that regressive content came out in response to test situations or to relationships with the examiner, but that the latter were only part of a total situation in which any instigation to the explosion of his own inner eruptive turmoil must be checked.

Physical examination revealed hirsutism over the entire back. Neurological examination revealed that his skull was slightly turret shaped with prominence of the mid-frontal suture. There was bilateral hyper-reflexia in the arms, asymmetric (left greater than right) hyper-reflexia in the legs, with a positive left Babinski sign, and mild incoordination, especially in the legs. Skull X-rays and electroencephalogram were normal. Organic involvement on the psychological tests was suggested by some aspects of his perception, some difficulty in visual motor coordination, especially in conjunction with drawing, peculiarities in speech, some peculiarities in motor coordination, and in his emotional reactions. There was a tendency toward a rather diffuse total organismic reaction of either pleasure or displeasure to comparatively minor situations. This tendency probably contributed to the inner threat of explosive aggressive behavior.

* * *

Susan, a small, slender, attractive girl, was six years old at the time of evaluation.

The mother took little responsibility for the care of the infant, leaving much of it up to the grandparents and to trained nurses. Susan began stuttering between three and three and a half years. Tics occurred at times, such as throwing her head about, blinking her eyes, or twitching **her** shoulders. It was almost impossible to get her to use a toilet and **the** went to the yard to have bowel movements and to urinate. Temper tantrums began at one and a half and increased until age five, but since then they have been decreasing somewhat in frequency. She **feared** the dark, machinery, and incomplete objects (such as a lamp without a shade). She has always feared and disliked hearing children **cry**.

Susan had no deep interpersonal relationships and the parents considered her perhaps more attached to the maternal grandparents than to anyone. She was very aggressive in her play with other children, and extremely jealous of her younger sister, whom she would attack unless prevented, and had to be watched constantly because of striking out at her.

Susan had excellent motor coordination and played vigorously on swings, and trapezes, showing no fear. She enjoyed tiny objects and when small she would constantly carry a small bead in the inside of her bent first finger. Her most positive feeling was expressed in relationship to "little bitty teeny things," some of which were her own creations such as little pictures. She asked repeated questions, sometimes asking the same question for days at a stretch and paying no attention to her parents' answers. The most frequently reiterated questions were like the following: "When will I be big, why can't I be a boy, and why can't I have a penis like daddy?" She was excessively interested in the genitals and examined every animal that she encountered.

The patient left the parents easily during the examinations, but during the fourth psychiatric interview, she insisted on returning to the mother after 30 minutes and was preoccupied with bowel movements, having had diarrhea the previous day. The psychiatrist felt she was withdrawn and distant but in the last hour she smiled frequently and seemed to appreciate his attention. She was transiently responsive to firmness which seemed to allay, for the moment, some of her anxiety. She was timorously responsive to praise. The psychologist reported that in spite of her profound emotional disturbance, she had the capacity to enjoy and become engrossed in some activities and for relating herself tenuously to people. On the Children's Apperception Test stories, the parent figures were represented as restrictive, punitive and rejecting. At the time of the examination she seemed to express a preference for the father, but showed no strong object attachments. In discussing her family, she omitted mentioning her sibling, a younger sister, and she said that her mother made her unhappy when she talked ugly to her and her father made her unhappy when he spanked her.

Disappointments and frustrations resulted in whining, crying, hitting, head jerking, and uttering nasal grunts. She experienced great insecurity, fear, and anxiety which reached the point of panic as she tried to understand her place in relationship to other things. She became discouraged and frightened in her struggle. Her dependent needs were unusually strong. Failing to obtain satisfaction, she demanded attention

and vacillated between trying to keep a sweet, smiling, acceptable exterior, and seeking some expression for her aggressivity, which was evidenced in her negativism, occasional "acting out" and perhaps by her compulsive inquiries. A recurrent theme in her stories was that of a little girl who wanted to go out in the street for elimination because of her fear of the sound of flushing the toilet. A more basic fear was suggested in her stories of people who were trapped and battling with water which threatened to engulf them.

During the examination, Susan frequently related herself to inanimate objects as though they were animals; for example, she bumped her knee on the dictaphone and said, "Why did that naughty thing hurt me?" "Do you think it meant to?" When the train ran off the track she had made, she responded with wild crying, saying, "Why did I make it naughty?" "I'm sick of that old train. It made me sick." She commiserated with a tiny block she was drawing because it was afraid. The psychotic quality of her thinking was revealed in the Mare and Foal puzzle, with one piece becoming "naughty little pieces of dog," which was at the same time her mother, "Shraff" who got in bed with number five (a piece of grass) which was "Schrance" the baby, and really herself. She, number five, was really no bigger than number three, "the naughty little pieces of dog," which was her mother.

The Rorschach responses were peculiar. She perceived a face with four eyes, a swimming pool with water running all over the card, and all the colored areas, regardless of color, were seen as fire. She saw a cobweb which was burning with fire that was issuing from the nose and ears of a face. She was preoccupied with bodily functionings, especially those of eating and elimination, the possibility of castration, bodily harm, destruction, birth, the meaning of growth, age, size, and sex differences. Some of the most fundamental bodily functions were closely connected in her thinking with punishment, rejection and annihilation. In the play room she examined all the female figures, commenting that they had no panties on and asked if the male figures had anything on under their outer clothing.

Susan frequently repeated things three times, withdrawing to the uncertain comforts of compulsive thinking, attempts at magic manipulation, and the re-naming and re-defining of things within her own world. When she was telling a story of a man who was trapped but was trying to get across the water, she put a small mark on the card and, as if she had accomplished some magic, said with relief, "Now he

can get across because I made a mark on it." She frequently reiterated the wish to be big and asked such questions as, "Why don't I have colored skin like the cooks have?" On one occasion she noticed that several of the fingers were missing from the hand of one of the dolls and she asked repeatedly, "Why aren't some of my fingers off like that?" and when seen the next day she held out her fingers and said, "I would like to have my finger cut off right here." This was followed by numerous questions about what would happen if the fingers should be cut off.

At times Susan apparently imagined conversations which she accepted as real. On one occasion, for example, she said, "I'm slapping at a little girl standing there for talking ugly to me." At times there was much manneristic lip movement and making of anal sounds and clucking noises, and frequently during this she would close her eyes or snap her fingers. She frequently ignored questions and it was difficult to get her to play with the designated play material.

On the Revised Stanford Binet Test, Form L, she earned a mental age of six years, six months, which at a chronological age of six years, two months, yielded an Intelligence Quotient of 105. Scatter extended from the five through the eight year levels. There were several indications that she was hypersensitive to difference in the auditory as well as in the visual fields; in the latter she noted tiny indentations, slight differences in coloring.

The tests indicated that the degree of disorganization in various areas reached psychotic proportions and schizophrenia was suggested by her withdrawal, the fluidity and autistic quality of her thinking, her illogical perceptions, her poor effective integration, and the nature and extent of her preoccupations and fantasies.

Susan was deft and smooth in her muscular coordination in spite of some excitement. Neurological and laboratory examinations were all within normal limits except for the electroencephalogram which was described as "indicative of a diffuse suppression of normal cortical activity either on a structural basis (that is hydrocephalus) or as in a toxic state." Some of the Rorschach responses were felt to be inconsistent with those seen with organic pathology, but there was no indication of this on other tests.

In essence, all these children need a setting with external controls and supportive routines that can protect them. They need to be accepted, they need permissiveness within a framework which limits them in a kindly way

yet protects them firmly in a non-aggressive fashion. Obviously such a setting, such an institution needs to have the kind of staff who can absorb the angers, aggressions, and hostilities of these children and help them neutralize such feelings.

Such an institution needs to place realistic demands on these children lightly and sensitively so that their fragile egos are strengthened. Unable to endure close personal relationships, they must therefore be permitted enough distance in their closest ties so that they feel neither overwhelmed nor rejected. Realistic routines help them to maintain their tenuous inner organization.

The staff of such an institution needs to create a therapeutic atmosphere by continuously removing destructive pressure which in the previous experience of the child prevented him from resolving his conflicts. Through the use of selected experience in reality, through the use of constructive fantasy, of creative or productive activity, through the use of structure, and of limits, and through the interaction of the children with each other and of the children with the staff, a residential environment can allow the child to struggle toward his own solutions to his problems. In so doing the child can expand his own strengths and gain greater capacity to cope with stress. The basis for good residential experience lies in providing security for growth and it is largely through interpersonal relationships with the residential staff and through the therapeutic experience that such security comes.

The child care staff, the people who live and work with the children, are the core group for developing the basic atmosphere so necessary to residential treatment. One aims at developing relationships between the child and staff which are of maximum benefit to the child, helping him to alter his distorted concept of the world, his deeply ingrained suspicion of and hostility toward adults. This involves opportunities for identification with adults, who give them different kinds of experiences and allow them different kinds of reactions from those characteristic of their past unhappy life.

Parents have many difficulties in facing and dealing with the problems presented by such severely disturbed children. Although many disturbed children can be handled in the home, through the help and resources available in the community, there is ample evidence that many severely disturbed children cannot be adequately treated while they remain at home or in their community. Sometimes continuing environmental stress, particularly strain in the parent-child relationship, is so high that the child's presence is destructive to him and to his parents, or the degree of personality disorganization in the child has a disruptive effect on the family. With such children,

direct psychotherapy within the community is not sufficient to meet their needs; therapeutic help must be combined with a new and gratifying living experience in a therapeutic milieu, which removes the stress and relieves the family as well as the child.

Under these circumstances, direct psychotherapy becomes a part of the therapeutic experience in a program which provides healthy group living, suitable education, planned recreation and creative activity, controlled free play, and community life. From this program a child can gradually learn to deal with his problems and to accept himself as an individual, regardless of his level of deviation from the norm. His emotional development can be recapitulated in a new and corrective manner that allows for healthy growth and development. At the same time the therapeutic work frees the child of his internal needs for symptomatic behavior. This combination of a healthy living experience along with psychotherapy contributes to the educational function of both the school and the setting itself.

There are many unanswered questions as to the kinds of children which require such residential schooling, as to the most effective use and combination of all of the various aspects of the residential treatment of children, and of the kinds of personnel required for such treatment to be effective. The term "emotionally disturbed children" covers a wide range of clinical problems and in planning for the treatment of any child, one must take into account the specific needs of the child and the particular group of children to be treated within the setting. Although the criteria for the type of care to be recommended in individual cases are not yet clearly defined, one hopes that more specificity will develop a better treatment program.

The need to find more successful ways of helping severely emotionally disturbed children is great and it is no exaggeration to say that the whole country is joined together in the search. An unpublished report from the Children's Bureau entitled "Trends and Essentials in Community Planning for Residential Treatment of Emotionally Disturbed Children" (4), stated that definite figures are not available regarding the incidence of severe emotional disturbance in children requiring inpatient psychiatric treatment. Then it went on to add that the recent 1950 Census Bureau figures show 8,000 patients are under the age of 18 and yet reside in our state mental hospitals. An additional 2,000 patients are in the 36 residential centers listed in the Children's Bureau directory. According to the report, these figures reflect really the service which is available rather than the amount of service which is needed, and it quotes a Public Health Service reprint dated November, 1951, which states that there are at least another 200,000 children using

or needing psychiatric services in various communities throughout our country. These statements and figures begin to suggest the size and complexity of both the problem and the community responsibility involved in the prevention, the diagnosis, and the treatment of emotional disorders in children.

It becomes equally obvious that we must educate physicians, social agencies, and the public as a whole toward the function of residential care, residential schooling, and treatment settings to broaden the base of community participation. An acceptance by the public of their responsibility for severely disturbed children and for supporting residential school programs is essential. An educated community will accept these responsibilities. Including residential school services as a part of the over-all community planning will help severely disturbed children to maintain contact with the normal stream of society since both the residential setting and the community resources will work together to obtain a real acceptance of severely disturbed children and to get for them the kind of help which they require.

Obvious complexity emerges, however, when so many resources, both outpatient and residential, need to be developed and coordinated in order to achieve a total community program for emotionally disturbed children. To begin with, there are a number of observations made by the Children's Bureau (5) that seem to have been accepted throughout the country. Some of the major ones are the following: First, we are still in an early stage in the science of diagnosing and treating emotional disorders in children. This is particularly true of residential treatment and residential school services since much of it is still experimental. Closely related to this is the point that there is at present no blueprint for the ideal residential treatment setting, or the ideal residential school service. As the Children's Bureau (5) viewed the several such services throughout the country, they found more differences than they did similarities in the existing treatment centers in regard to philosophy, function, and method. It became clear that a residential treatment service was never the "solution" for all severely disturbed children. Rather, the treatment residence was best viewed as a partial resource in a total community organization for emotionally disturbed children. Standing alone, it had limited value. Integrated however, with preventive diagnostic and treatment resources, it assumed much greater significance. (J)

Thus, properly to consider residential school services for the exceptional child, we must relate them to the concept of *comprehensive child care*. This concept means the development of a total approach to the treatment of the exceptional child, an understanding of the treatment of such children

from the aspects of the community, the family unit, and the particular service of a residential school.

This concept implies that to function effectively a residential service must be an integral part of a community program. It must be one of a group of services available in a community, to care for exceptional and severely disturbed children. Ideal comprehensive planning must allow the community to consider the total interrelated planning that is necessary for the care of exceptional and severely disturbed children within the community as well as within the residential school. Unless this concept is seen and understood in the planning of the community, the residential school service assumes dimensions out of proportion to its inherent value. The work of a residential school is limited if it is not functionally related to other treatment resources that preceded, supported, or follow it in the total treatment program of the community.

As the report of the Citizens' Committee on Children of New York City (6) stated, in planning for the general well being of its children, a community must look first to the basic quality and quantity of the health, education, recreation, and welfare service which should be available for all of the children. However even though these basic services are provided there still will be need for special services such as a residential school to help children with severe problems. A community's readiness to make effective use, however, of a residential school service, largely depends on its understanding that it is only one part of a total approach to the treatment of disturbed children. In order to make this clear, let us consider the place that a residential service occupies in a total program for community care of children with problems.

First, the community must provide resources primarily designed to help normal children with problems; such services as school clinics, day nurseries, well baby clinics, foster care and boarding homes, and family and children's agencies. Second, the community must provide resources for disturbed children whose problems are basically those of behavior of a nature not requiring psychiatric aid. Such children's problems come to pediatric clinics, school clinics, private physicians, to other services related to the public health functions of the community, to the courts, and to the churches. Third, the community must provide resources for the care of emotionally disturbed children who reside in their own homes within the community. Such services are child guidance clinics, psychiatric services within the schools, therapeutic play groups within clinics and agencies. Fourth, the community must provide resources for emotionally disturbed children who, although

living within the community, should not be maintained within their own homes. This requires facilities such as foster homes, boarding homes, and group residences. Fifth, but by no means last in importance or in value, the community should provide residential school services or residential treatment centers that will provide total, 24-hour-a-day care for severely disturbed or exceptional children who can neither remain at home nor live within the community at the particular period of their disturbances.

In an excellent article Helen Hagan (9) of the Child Welfare League of America states, "A residential treatment center should not be used for children whose only need or whose primary need is that of placement. Residential treatment is a highly specialized form of service developed to meet the needs of children who cannot profit from any other form of care. It is a combination of individual and group service through which, by carefully planned integration, a child suffering from a personality disturbance is given help and enabled to change his distorted behavior patterns."

As we consider this total community approach to child treatment, we realize that there are varying kinds of residential school and residential treatment services. These include the following: First, the diagnostic study center; second, the short-term or long-term residential treatment service; third, the closed unit for the severely disturbed or psychotic child; and fourth, the closed unit for the continued care of organically damaged, severely retarded children. We thus sense that our residential services may fall into three general groupings related to the functions served. (5) First, the residential diagnostic programs in which a child is admitted to a planned setting, away from his family for a few weeks or a few months for direct observation of his behavior on a 24-hour basis in a specific living experience; or second, the environmental programs of residential care in which the child's behavior is modified largely and mainly through the daily living within a therapeutic group living process; and third, the intensive treatment programs within residential services, in which a change is attempted in the basic personality structure of the child through specific and direct psychotherapeutic service to him. Such total programs always involve the integration of: individual psychotherapy for the child himself, counseling or casework services for the parents, remedial education for the child, and a therapeutically designed living experience that is planned for his 24-hour-a day care.

If we apply the concept of comprehensive child care to the specific residential treatment service, we realize that when a child grows steadily and soundly toward maturity he needs many things, all important in their time and place, and one of his needs at any given moment may well be

individual psychiatric treatment, but this need never stands alone. Rather it needs to be always considered in the context of all the forces which are affecting the child's well being for good or for bad. (6)

Too often there is a tendency to focus on a particular need to the exclusion of all other needs in the life of the child with the result that the one particular need may be met at the expense of others and of course then at the expense of the child. If fragmentation of the child is to be lessened, there must be some attempt to coordinate the wide range of existing services and the joint planning in the development of new programs. (6) This broad concept of comprehensive child care is relatively new and there is little in the way of established tradition on which the residential school and treatment services have to draw. In truth, in the search for more effective methods of treating children with severe personality disorders, residential treatment centers have developed an awareness of the total needs of the child. If such centers have a major characteristic in common, it is the development of this total approach to therapy—a total approach which not only places the therapy process in relation to other aspects of community life, but which also includes as parts of the whole the functions of research, diagnosis, education, and the functions of training of personnel in the work with such children.

In the many professional disciplines and many social agencies now helping severely disturbed children, there is often no basic medical orientation, and as a result significant findings important to the welfare of the child may be missed. The residential treatment service needs a real integration of medicine, psychiatry, neurology, psychology, and sociology to arrive at an inclusive viewpoint of severely disturbed or exceptional children. Such a total awareness means an initial evaluation through the use of a clinical team, and an evaluation not only of the child but of the parents, of the parent-child relationship, of the family unit, and of the community and its resources. The value of such a total view is immediately evident when one realizes that severe emotional disturbance in a child may be primary, or it may be concomitant with, and perhaps even exaggerated by, physical or mental handicap, or it may be etiologically related to physical handicap or illness, mental retardation, and the anxiety aroused by these in both parent and child.

Through careful evaluation we can prevent children who *can* be treated at home and within the community from being sent into residential services. It can also help us to prevent emotionally disturbed or exceptional children who need residential school services from being misdirected to unsuitable

institutions. Similarly, it can keep children with other primary problems from crowding residential facilities planned for the specific treatment of emotionally disturbed or exceptional children. The importance of a total therapeutic experience for the exceptional or severely disturbed child, as we said, lies in providing security for his growth, and an environment in which through relationships with all of the staff, the child will feel a sense of dependable acceptance of himself as an individual regardless of his level of initial deviation. From this acceptance and from the total treatment program, the child can then gradually learn to deal with his problem through the planned individual psychotherapy, healthy group living, schooling and special education, planned and recreational and occupational activities, and controlled free play, all of which is carried out in relationship to many and several community activities. (10)

It should be evident that from the standpoint of comprehensive child care, a residential treatment service should not be offered to children whose only need or whose primary need is that of placement. Residential treatment is a highly specialized form of service, developed to meet the needs of children who cannot profit from any other form of care. It is a combination of individual and group service through which by carefully planned integration, a child suffering from severe and deeply rooted personality disturbance is helped to change his distorted behavior pattern. (10) To further illustrate the kinds of children requiring this care, the summaries of two such cases can be offered:

William was five years ten months old at the time of examination. He was born one year after his parents' marriage and the mother stated, "I couldn't even try to get acquainted. Neither of us were prepared to have a child and didn't realize at all what was involved." The mother was afraid to handle the baby and this was reinforced by the pediatrician's order to leave the baby strictly alone. The mother stated, "I always stayed away when he cried." His schedule was rigid.

When William was 18 months old, his mother entered the hospital for a miscarriage, and although she was there less than a week, at this point the child's speaking ceased entirely and continual thumb sucking began. The parents also noticed his major difficulty at two and a half when he entered a nursery—until that time he had been almost totally isolated and left alone for many hours, and the parents had no real basis for comparing him with other children. Between two and a half and three he spent much time in studying the mother's body and much masturbation occurred at this time.

At home he showed much obsessive play, particularly with water. He had a considerable fear of broken objects or any change in the setting or in the routine. He had severe, screaming tantrums, especially at night. For a long time he always carried a ball from which he refused to be separated. There was some repetitiveness and ritualism in his pattern of behavior. At home he had periods of spinning himself around, and balancing various objects on his head.

At the time of examination he was almost completely inaccessible. He appeared withdrawn, preoccupied and distant; it was as though he existed in his own isolated world. At no time during the examination could he be encouraged to participate with the examiner, and throughout he maintained a solitary, isolated play. The examiner never felt he responded to her as a person, and he used her largely as a medium for satisfying his needs, displaying primitive forms of displeasure when thwarted or pleasure when he obtained what he wanted. With other children he displayed the same apparent unawareness of their presence and once he lay on the floor contentedly chewing a piece of string, while another child, unfamiliar to him, did handsprings back and forth over his body.

Although in general behavior he appeared to be almost oblivious to surroundings or disinterested in them, he was at times attentive to sounds outside the playroom (such as the noise of a passing truck), while at other times he seemed not to hear at all. In his primitive, solitary play with the toys, he revealed the extreme brevity of his attention span, as well as the infantile quality of his performance. He disinterestedly explored the toys but largely ignored them except for a ball, a train, an infant's play pen that stimulated him to make gurgling sounds, a rubber nipple on which he chewed aggressively, and a spinning top. The top fascinated him and the examiner spun it repeatedly to his apparent delight and satisfaction. Occasionally he jumped up and down with mild excitement, balanced himself on a narrow ledge with ability, or walked around the room as if compelled to walk in a circle. Even though when not in motion some part of his body was usually active; often he would kick his legs in the manner of an infant, seeming to derive a kinesthetic pleasure from this activity.

He was a winsome, appealing boy, with pleasant facial features. On the intelligence tests he earned an Intelligent Quotient of 43, but this quotient was not considered to be too significant because of the child's withdrawal and negativism. He was unable to speak and vocalized

guttural sounds of repeated primitive syllables. He would utter such sounds as "gaa, gaa," "la, la," and "da, da," or emit sudden piercing screams or an excited crying out and then abruptly fall silent. The patient did not use these sounds as a form of communication, but would demonstrate what he wanted by taking the adult's hand. At no time did the examiner have any special meaning and he would have been replaced by a broom handle, a toy, or another person passing by. His negativism was demonstrated when, instead of complying with the request to drop blocks in the cup, he emptied all of the blocks out of the cup, or when, instead of building a tower with blocks, he hid all the blocks behind his arms.

Neurological examination was normal; pneuencephalogram and electroencephalogram were negative.

* * *

Wendy was six years old at the time of the examination. When the examiner went to get her, he found that she would not leave the family car which was outside, and although it was very hot in the car, he noticed that she was not perspiring. When seen later in the playroom, accompanied by her parents, she cried pathetically, "Green car, green car," substituting for the security of the mother the security of the "green car."

She was an attractive, blond haired child, with a distant, ethereal quality that was associated with the great separateness and unresponsiveness. During the examination, she rarely looked at the examiner, never directed comments to him, and never verbally responded to questions. If she wanted something, she would shout for the object she wanted, grasp the examiner's hand as though it were a separate entity, and place it on the object she wanted. When he did not respond immediately to her commands, she beat on his arm or dug her fingernails into his arms. When she came into closer physical contact, it was as if she were relating herself to his lap, arm, or body rather than to him as a person. She could be put into any position without resisting; she was not able to sit in a relaxed fashion; she might start to put her arms around his neck only to suddenly fall over in his lap completely flaccid or she might slip off his lap entirely. In more withdrawn moments she seemed deaf to sounds and completely unresponsive.

In the playroom she often roamed around in a detached, preoccupied fashion. She imitated the examiner's singing and collaborated with her

in dressing and undressing a doll. She would eat crayons and paper, would often put the doll in her mouth and walk around the room with one-half of the doll projecting from her mouth. She would chant softly and distinctly, "look at the little dolly, dolly, dolly, dolly." If she wanted something she screamed in a hollow, toneless voice. The green toy car was used repeatedly and as though not understanding the limitations of the toy car, she would say, "open door, open door" and try to pull at the side of the car. Her interest in the playroom centered on the dolls and miniature furniture, but she became easily frustrated and would react with tantrums, or overtly destructive behavior, or passive negativism and withdrawal. The hours were frequently interspersed with masturbatory activity and with trips to the bathroom. Here, she would grab a piece of toilet paper, sing a few ditties, and then in a few minutes return to the playroom without having urinated. Impulsivity and lack of control were characteristic of her behavior. She sought close, clinging contact with the mother or siblings, but she would also unpredictably bite, pinch, and kick them. At the time of the examination her speech was paragrammatic, composed of isolated words or phrases, akin to that of a two-year-old. After remaining mute several times during the test procedure, she finally repeated one digit for a piece of candy and even counted three toys on request. The Merrill-Palmer Scale indicated that her basal perceptual motor ability was at least at the three and a half to four year level and she had additional successes up to the five and a half year level on the Manikin and the Mare and Foal test. Her Drawing of a Square was still below the five year level and reflected a maturational retardation in perceptual motor functioning. Her drawing of a doll going down an elevator into the water was sufficiently differentiated to earn credit at about the five year level. There was noticeable impairment of the fine motor coordination and a slight tremulousness of the hands. She showed the primitive motor responses described by Bender. There were no clinical signs of organic disease of the nervous system. Skull X-rays and electroencephalogram were not obtainable.

The child had developed early, rolling over at three months, sitting up at five months, and at eight months she had climbed out of her crib. She walked at 11 months, and was deft in climbing and balancing, although she walked on a broad base. At 14 months she would nightly climb out of bed and would lie on the floor by the door of her parents and scream herself to sleep. Feeding became a problem as she would throw dishes off the table and she had food fads and lived mostly at the

time of examination on orange juice and oatmeal. At 14 months, she did not talk and was disinterested in stories. The parents' efforts to comfort, distract, or entertain her "never seemed to penetrate" and early in life they felt she was deaf because she did not respond to noise the way the other children did.

The patient was seen in therapy for about a year at age three and she began to say an occasional word. Toilet training had been accomplished by the age of two, but she had regressed until she was not trained at all. Although she attended nursery school, she never really played with the children and was apt to hit them, push them in front of swings, or attack them. Later she developed an attachment for jeans and would wear nothing else, going to bed in them and carrying a pair over her arm. Later, attachments of this kind developed to nighties and then to a little sailor dress so that the parents could hardly get it off her to wash it.

The program of a residential institution which serves for the effective treatment of exceptional or emotionally disturbed children has three basic functions. First, to study those factors underlying the particular child's deviant or disturbed or anti-social acts; second, to help the child to live in harmony with himself, his family, and his community; and third, to counsel with family members or community agencies so that they in turn learn to live with the child and his particular personality.

If we now devote our attention to the details of the treatment program itself which would fit in with our concepts of a total approach to therapy within a residential school, we find that the reports of the Children's Bureau (4,5) give us certain conditions which are probably essential to each residential treatment residence regardless of the auspices under which it functions. These are the following:

"1. All children accepted for residence are *emotionally disturbed or exceptional youngsters* who cannot be treated in or who cannot be treated by other community resources.

"2. The *treatment* of the individual disturbed child predetermines most administrative planning, such as selection and development of staff, grouping of the children, and both the general and individual program of the institution. In other words the entire environment of the residential setting is constantly adapted to the treatment needs of the disturbed child and the group.

"3. The psychiatric, administrative, casework, group care, group ther-

apy, and educational staffs are guided fully by an understanding of the dynamic process involved in the treatment of the children.

"4. A 'masterplan' for both the study and treatment of the child is established soon after his admission and is frequently reviewed and reshaped during the period of residence.

"J. The masterplan evolves from the joint thinking of all staff members who are involved in treating the child. It is not a prescription given to the residential staff by the psychiatric or casework groups. Procedures are established to coordinate effectively the thinking, feeling, and planning of the various staff members for the individual child at various stages of the child's treatment.

"6. Each member of the staff must be emotionally able to integrate his role and his attitudes with other staff. Each member thus derives his specific role from the over-all plan. Each staff member thus needs sufficient personal and professional maturity to re-examine his own emotional patterns and his own reactions in terms of the needs of the individual children in the group.

"7. The grouping and interaction of children is constructive and not left to chance. Groups must be small and there must be a high tolerance for emotional deviation within the individual children. In order to use the group to benefit the individual child such developments as group activities which promote status, the formation of sub-groups, the effects of positive leadership, and the effect of group contagion must be constantly and actively scrutinized for their impact on the individual children. The interdependence of individual and group therapy would be both recognized and utilized. Thus for example, the decision to admit a child would be based not only on the child's individual behavior and his treatment needs, but also on his potential impact on the resident group of children and on the staff, and likewise their impact on the child, both individually and as a household.

"8. The plan for the child's return to his family and to the community has an important influence on all phases of the residential school experience and on all aspects of the residential planning for the child.

"9. Sufficient funds and sufficiently qualified staff are available to maintain the program properly.

"10. Staff members themselves are clearly conscious of the experimental nature of the residential program, and of their responsibility for re-examining, evaluating, and readjusting treatment methods in the light of objective findings." (4,5)

To consider what this kind of a program of comprehensive child care would mean to the therapeutic atmosphere of the residential school service, we need only to be aware of the function of the child care worker who assists the child in skilled and special ways with the daily problems of his living. The child care staff worker who assists the child in getting up in the morning, and who is thus aware of the child's fear of facing the reality demands of the day, of school, and of his companions, needs to be aware as well of how difficult it is for a child to leave his bed which is his place of safety, his place of refuge, his place for dreams and for infantile pleasures. The worker needs to be aware of the meanings of a wet bed, or of a soiled bed, or of the reluctance of the child to take a bath or of the child's desire to remain unkempt and dirty or to remain barefoot and partially undressed. The worker needs to help the child without anger or irritation to keep sufficiently clean and to wear enough clothing. The worker needs to know what aggressions to permit and which to control or limit in such a way that the child will feel the worker as a support in summoning up his own strength. The worker needs to help the child with problems of eating, showing interest and concern about his feelings regarding food but never using food as a way of depriving the child, or as a wedge for seeking conformity from the child. The worker needs to be comfortable about the use of large quantities of food to gratify the great oral needs of such disturbed children. He would need in our program, to be a person who is not sentimental about children, taking their part unthinkingly to shelter them from the realities which they must encounter in their lives.

As the worker joins with the child in such a program of recreation and social activities within a residential setting, he must be aware of the unique symbolic meanings of play to each child and the use of play for the child, whether to work through great feelings of aggression or feelings of impotence and inadequacy or variations of both feelings which exist side by side in many children. The worker must quickly become aware of the use of play in mastering anxiety. He must also understand the language of play as the child may use it to communicate thoughts he cannot express directly. The worker must know about the fears of children in relationships with other children and with adults. He must be alert to the variety of ways in which children try to develop relationships and the use which the children seek to make of them.

The child care staff must be aware of the way the child views himself, his place in the group, and his ways of seeking security in the group—his needs for identity and for achieving a sense of belonging. Such a comprehensive program requires the staff to be aware of how the child feels about

being in the school, how he feels about his aspirations and desires for learning, for growing up or for maintaining his illness. The staff must be aware of how a child feels about the closing hours of the day, when the child feels the absence of his parents most and when night fall begins to hem the child in with thoughts most frightening to him.

Great quantities of hostility and many negative attitudes must be absorbed by the worker. Obviously then he must be sufficiently strong in his own sense of belonging and his own sense of identity and of being a loved person to give to the child what he has abundantly received and which restores itself within him to be given again and again in measured, designed ways directed by the therapeutic purpose. How to achieve this clarification of therapeutic purpose is the focus of much self-examination and mutual examination with the supervisors, of those tensions, rivalries, and aggressions within the staff that are aroused by the children and too often exploited by them. The mature worker in a comprehensive residential program lends himself readily to the self-scrutiny pertaining to staff-child relationships and experiences creative satisfaction and growth which is then ultimately absorbed and deeply felt by the children themselves.

When one considers the function of the specific educational program in the total treatment experience of a child in a comprehensive program of residential service, it soon becomes clear that certain assumptions are as necessary for the educational program as they are for the child care program itself. These assumptions would include at least the following which were stressed in a personal communication to the author from Miss Helen Ross of the Chicago Institute of Psychoanalysis. She remarks that one makes the basic assumption that each child has his own potential for educability, that each child has highly individual needs, and that each child requires the experience of an educational program within the school as an important part of his preparation for return to community living. Miss Ross adds that in such programs teachers should have both a personal suitability for this work as well as dynamic insight developed in specialized training at a graduate level. They should also have had some experience in teaching of normal children and their training should have included a practicum in dealing with the emotionally disturbed child. Miss Ross stresses that since the teacher is a representative of organized society, she serves this important function of preparing the child for return to normal living. She is a symbol to the child of what is expected of any child of his age and as such she represents the ego and super-ego of the child. She should understand his impulses and conflicts, but her attitude toward the child's expression of these is necessarily different from that of the therapist and it seems highly important to differentiate

functioning of teacher and therapist. This does not mean that the teacher should be less an integrated person in the total plan than the therapist, but rather that she becomes more important in getting the child ready for a continuation of his adjustment to society.

Thus we can see that a residential school for severely disturbed and exceptional children which aims toward a comprehensive view of child care and treatment also aims at establishing a relationship between the child and the total staff which is of maximum therapeutic benefit to the child. It aims to change the child's distorted concept of the world, his deeply ingrained suspicion of and hostility toward adults, and to offer to the child opportunities for an identification with adults who give him a different kind of experience and a different kind of reaction to his behavior from that of his past experience.

Specialized comprehensive residential treatment is an expensive service. Even if we accept the fact that these severely disturbed and exceptional children need a special kind of care, many families and many communities are still loathe to accept the high cost of such treatment. This is in spite of the fact that these same children if they remain untreated may cost the communities considerably more in mental hospitals or in penal institutions in the years to come, aside from the family and social loss involved. (10) The needs of these severely disturbed children and these exceptional children are important and it is one of our duties to show that they are important to each and every citizen, to each and every family, and to each and every community. (10) The philosopher, John Dewey, has said, "What the best and wisest parent wants for his own child, that must the community want for all its children."

Out of this concept of comprehensive child care and a total approach to treatment has come a new understanding of residential services to children, and of its richness and value. (14) Because certain institutions had neglected in their work and in their philosophy the concepts of total care of children, the whole field of both institutional and residential service had fallen into disrepute through a loose kind of thinking which condemned the service because it was not well done. We can now see however, that residential treatment offers certain unique contributions to the therapeutic program of severely disturbed and exceptional children. (15)

A residential experience permits the child to establish necessary distance from his parents while he is working through emotional problems connected with them. (7) Good residential care with less demanding personal relationships and more controlled environment may be the first choice

for certain of our severely disturbed children. (15) Where parents have been lacking, the residential experience can provide through its child care personnel positive identification figures for the disturbed children. In residential programs the child can keep a distance from the real parents without suffering the realistic fear of loss of support which accompanies ordinarily the loss of parent identifications. From such experience the child often gains a more realistic view of the real parents themselves, and thus tends to perceive his own conflicts and attitudes more realistically and with less neurotic conflict. (7) The variety of personal contacts which a child is allowed within a residential setting, if the number of identification figures is not too great, offers the child a great and useful opportunity to select personal relationships which are easiest for him to tolerate and to move from one relationship to another or to continue with the same person as his needs require. (14) Further than this, within a residential setting children can move into new relationships at their own pace because of the nature of the care itself. More than this, no one staff member receives the full force of the child's hostility or indifference. (14)

The routines and programs of residential school experience carry with them their own sense of continuity, security and stability of particular value to those emotionally disturbed or exceptional children who have had no true stability in their own home life and no constant way of doing things. (14) This stability also permits the child to deal with particular emotional conflicts and crises in his psychotherapeutic process without serious consequences in the real world since the institution itself absorbs the behavior disturbances. This is particularly true in relation to the child-parent relationship problems. Although residential settings cannot provide individual parents for children or complete parent substitutes for them, they can recognize with the child the meaning to him of his own parents and can thus help with problems which center there. (15) The residential setting provides acceptance for the child without making it necessary for him to buy his acceptance by one or another form of behavior.

Perhaps the greatest contribution to be gained from residential experience is the therapeutic, guided relationship of the child with a group of children. To many a disturbed child, the group can be a milieu of acceptance where the child can participate without needing to give of himself in any way, something which the child may well be unable to do in the beginning of his participation, (14) Further, many children use the therapeutic milieu to develop a group feeling before they are able to develop any true sense of self. Further, the richness of the group activities and of the recreational program which a residential setting can have is particularly use-

ful for the new experiences, the new achievements and the recognition which exceptional and severely disturbed children so often need. (15)

Except for the relatively few children who are so personally incapacitated physically or mentally that they can never be cared for in a normal community, the goal of institutional care lies in helping every child possible to be able to make a satisfactory adjustment in his family and community life. A period of special care and treatment in a residential setting may thus be the means toward the achievement of this end with many of our severely disturbed and exceptional children. (15) Realization of this brings the institution to seek close association with community facilities; through a flexible imaginative program institutions can find ways of giving their children some of the normal experiences with the social life of the community. In her article on institutions for child care and treatment, Mary Lois Pyles sums up many of these points by stating that *children who live in institutions need the same things that all children need, plus help with the problems which bring them to the institution.* (15)

In our consideration of the values inherent in the comprehensive program for residential care, an important part of much of the improvement of many of the children is the movement which occurs in the process of the work with the parents of the children. When the parents of the child achieve their own progress toward less pathological family patterning, the effect of the child's emotional disturbance or the child's response to his own retardation is often strikingly noted. For some parents, the eagerness to assist in the treatment process with the child is so great and the parents' sense of their own need for change or for modification in their feelings about the child is so acute that the total treatment process is of necessity a process with both the child and his parents. For other parents, desire to change is not possible and thus the total treatment goal for the child may have to be to strengthen and assist him so that he can tolerate and endure some of the tensions and anxieties that he suffers in the parent-child relationship. With still other parents, their wish for the child *not* to return home is so clear and unchangeable that it is necessary for the comprehensive program to aid the child to structure a life for himself apart from the family through adolescence and into adulthood.

The meaning to the parents of the separation from them which comes about by the placement of a child within a residential school may sometimes be a relief of the responsibility for the child; in other instances parents may be full of depression or angry feelings over giving up the child. Whatever these feelings are, they become an important dynamic component in the

work with the parents and in the total treatment of the child himself. It is extremely rare that the parents need to be kept out of the child's life entirely. Even though the visits of the parents to the child within the residential setting are exceedingly disturbing, this may be important in the treatment of the child and in the work with his parents; these feelings can be dealt with as an important part of the reality of the participation of the parents in the child's total treatment process.

Critical analysis of an institution or a residential school experience shows, however, that the group setting may have negative as well as positive meanings. The residential care staff must be particularly sensitive to this since often there is not enough personal individual stimulation in the group life to promote the child's active personality growth after he has begun to accept personal relationships. (14) A child needs possessions, privacy, friends who belong to him alone, opportunities to make personal decisions, experiences with making and spending' money, association with the social worker and the social life—all of these needs can be met more easily in small groups. (15) Successful child care institutions and child care staffs do not allow themselves to become so large that they cannot provide the kind of individual living needed by the children even while they are using the group situation. These individualized aspects of living are hard for residential settings to provide. (15)

Problems of collaboration and communication between staff within a residential setting are often a major concern. The problems of residential treatment where intense communication and collaboration efforts are so important bring forth much emotional investment and feeling and often the problems are a reflection and projection of the intense feelings presented by the children themselves. (2,3) Investment of the therapist in a disturbed child is great. The investment of the child care worker in the disturbed child with whom he works is also great. The investment of the social worker in the work with the parents of the disturbed child is equally great. It is no wonder then that staff tensions in a residential setting become of major importance to the process itself and that better methods for collaboration and communication need to be continually sought. Furthermore, contact with disturbed children often brings to the surface many of the underlying problems in the individual staff members and as these are met in supervision, and by identification with other staff members who are struggling with similar problems, growth and maturity and increases in skill develop within the staff themselves. For those staff members who have personality qualifications for work with emotionally disturbed and exceptional children, the residential treatment experience contributes to their own development and maturity.

It requires well integrated staff to deal with the problems of severely disturbed children, to master their own anxieties as well as to absorb the anxieties of the child, and to achieve gratification and feelings of achievement through experience with children who improve and mature. (2,3)

Since residential care is especially helpful for some children and sometimes unsuitable for other children, an institution has a special responsibility not to take children who cannot be helped by their care, even if other needed services for the child cannot be obtained within the community. It is an obligation of institutions to know the limitations of their care as well as its values, and to know the needs of children referred to them so that proper selection of children can be made and their care handled as constructively as possible for each individual child. (15)

the questions and hypotheses which underlie the work of a residential school are based upon adequate understanding of the individual child and his total dynamics, not simply in relationship to his problems but also in relation to whatever conflict-free areas of response he has and in relation to every interest, desire, or need which can motivate a positive, active, constructive response in the child. It is particularly true in residential care that unless the child is viewed with equal emphasis on the physical and the social as well as on the emotional state of the child, the results of both study and treatment may be a distortion of the true dynamic problem of the child. This is why one must achieve a real integration of the medical, neurological, sociological, psychological, and psychiatric investigation. When the therapeutic approach is receptive and able to absorb contributions from these many sources it has a greatly increased likelihood of success. Although the individual parts of the residential work are not often unusual in themselves, their combined application to the total problems of each disturbed child and his parents offers many times a unique service. There are many questions as to the most effective use and coordination of all of these various aspects of residential treatment of children and of the kinds of personnel best suited and required for such total treatment service, questions which can only be answered by further experience.

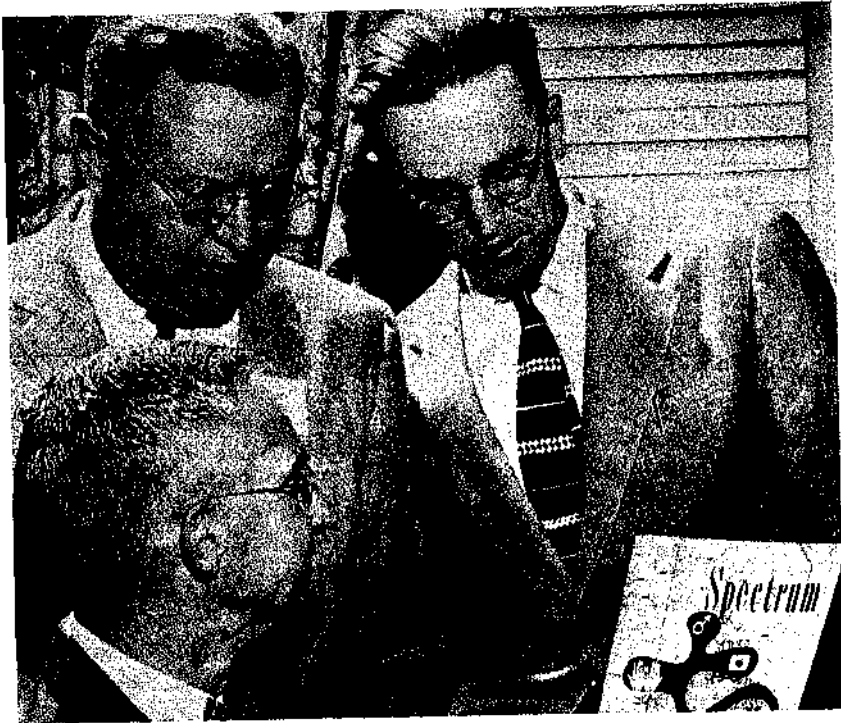
One hopes that as soon as new treatment residences have achieved an integration of their function, they will be willing to share with related programs their philosophy, their practice, and the evaluation of their results. (5) Programs should be so established as to permit constant search into the causation and treatment possibilities of certain categories of childhood disturbances, the prediction of community adjustment, and the follow through on residential treatment results. As our research skills improve in evaluating the results of treatment it will be imperative to discover the extent to

which public and private funds are achieving goals in the residential treatment of emotionally disturbed children, and to relate these findings to research in the effects of outpatient clinic and other treatment services. Programs can enrich their research programs through some cooperative relationships with universities and hospitals or other organizations carrying on programs of research. (4)

The goals of a residential treatment setting should be to find the most effective ways of (1) treatment for the severely disturbed and exceptional child, (2) enhancing the collaborative effort of the various disciplines so that they might contribute most effectively to an understanding of the disturbed or exceptional child, (3) providing rich and fruitful training experiences and, (4) through clinical services, of providing opportunities for research into the problems of children that will allow us to accumulate a body of factual knowledge about the "full reciprocity of inner and outer events which leads to a sense of identity, continuity, and distinctiveness so necessary to a healthy personality." Furthermore, since research also involves a deepening analysis of its problems, research itself and research interest increase the integrity and the wholeness of the entire staff of a residential school, and thus offer to all the persons caring for emotionally disturbed children an opportunity to evaluate objectively their role in the helping process and their integration into the total therapeutic effort.

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OPENING SESSION. President Edward L. Johnstone (seated) with Dr. J. D. VanNuys (left) and Dr. Lloyd Dunn, keynote speaker.



NEW CENTER. Mrs. Joy H. Roth, Woods Schools trustee, with President Johnstone, Dr. William C. Adamson, Dr. Leonard J. Duhl as new Child Study, Treatment and Research Center at Woods Schools is announced. Dr. Adamson directs the Center.



WELCOME TO INDIANAPOLIS. Mrs. Edward L. Johnstone and Mrs. Dorothy M. Odiorne, Woods Schools vice president and registrar, are greeted by Dr. Alfred Kamm.



SECOND SESSION. Dr. Alfred Kamm, Dr. J. Cotter Hirschberg, Dr. Otto Hughes.



PANELISTS. *Dr. Samuel A. Kirk, Dr. James J. Gallagher, Dr. Joseph J. Downing, Dr. John I. Nurnberger.*



PANELISTS. *Dr. C. Keith Hepburn, presiding officer at Third Session, with Panelists Dr. David H. H. Thomas, Dr. John J. Mahoney, Dr. Alfred Kamm.*

THIRD SESSION

SCHOOL OF MEDICINE AUDITORIUM
INDIANA UNIVERSITY, INDIANAPOLIS

MAY 12, 1956
2:00 to 4:30 P.M.

PANEL DISCUSSION:

"THE ORGANIZATION AND DEVELOPMENT OF RESEARCH PROGRAMS IN THE FIELD OF EXCEPTIONALITY"

Chairman:

C. KEITH HEPBURN, M.D., Neuropsychiatrist, Indianapolis General, Methodist, and St. Vincent's Hospitals; pathologist, Indiana University School of Medicine.

INTRODUCTION TO THE THIRD SESSION

PRESIDENT JOHNSTONE: Welcome to the third and terminal session of The Woods Schools' 1956 Conference.

Your presiding officer this afternoon is Dr. C. Keith Hepburn. I'd like to say a few words about Dr. Hepburn for the benefit of those who may not know him.

After receiving his degree in medicine from Indiana University School of Medicine in 1931, Dr. Hepburn served his internship at Wisconsin General Hospital, in Madison. He first joined the medical staff at Indiana University in 1932, as resident pathologist and assisting resident surgeon. In 1938, he was also named attending neuropsychiatrist at Indianapolis General, Methodist, and St. Vincent's Hospitals. Included with his long term of service at Indiana University School of Medicine were two years (1942-43) as an officer in the United States Army Medical Corps.

I now turn this afternoon's meeting over to Dr. Hepburn.

CHAIRMAN C. KEITH HEPBURN: Thank you, Mr. Johnstone.

We will have the invocation by Rabbi Maurice Goldblatt, Rabbi Emeritus of the Indianapolis Hebrew Congregation. Rabbi Goldblatt . . .

RABBI MAURICE GOLDBLATT: Eternal God and Father, we ask Thy

blessing upon this gathering for the purpose of service, which has brought us here. May the light of learning and knowledge be combined with the warmth of love and sympathy in pursuing our goals; in bringing aid and understanding and appreciation of those among us who cannot assist themselves. May these devoted laborers continue their efforts to bring happiness into the lives of Thy children. Amen.

CHAIRMAN HEPBURN: The subject of this afternoon's panel discussion is "The Organization and Development of Research Programs in the Field of Exceptionality."

Mr. Johnstone has a special announcement which he now wishes to make. Mr. Johnstone . . .

PRESIDENT JOHNSTONE: I have waited a long time to make this announcement. It is going to be very brief, and yet it has a good deal of significance.

Those of you who have been aware of The Woods Schools Conferences in past years may have observed that until this year the announcements and the invitations have read: "The Spring Conference of the Child Research Clinic of The Woods Schools." This year, the announcement reads: "The 1956 Spring Conference of The Woods Schools," and no reference is made to a Child Research Clinic. There is a reason for this.

The Woods Schools has embarked upon an accelerated activity geared to modern concepts. We now redesignate the "Child Research Clinic" with the more descriptive appellation, "The Child Study, Treatment and Research Center," which designation appears following the name and title of the chairman of the panel discussion which will engage your attention immediately. It is my pleasure to make the first public announcement of this change and this expansion and extension of services to exceptional children. A new and comprehensive program, with emphasis on dealing with emotionally disturbed retarded children, has been carefully spelled out. A new professional and scientific team has been mobilized. Cooperative working relationships have been established with the School of Medicine of the University of Pennsylvania, the Children's Hospital of Philadelphia, and the Philadelphia Child Guidance Clinic. The personnel and facilities of each of the separate institutions will be integrated as required for a complete and overall attack on problems to be dealt with. In addition, architects are now completing detailed plans and specifications for a new and functionally-sound structure to be erected on the present Woods Schools campus to contain this program. With some cash in hand and a good deal of hope and

optimism, the trustees are determined to proceed with building the new center, breaking ground for it by late summer or early fall, and I know of no more appropriate occasion than this Spring Conference to announce the coming into being of The Child Study, Treatment and Research Center of The Woods Schools, and I know of no more appropriate occasion or pleasant experience than to formally introduce the Director of that center, the man who will develop its program and guide its destiny, Dr. William C. Adamson. I am introducing Dr. Adamson as the Director of the center; the presiding officer will introduce him as the chairman of the panel.

DR. WILLIAM C. ADAMSON: Thank you very much, Mr. Johnstone.

In responding to your announcement and introduction, I do it with a feeling of a deep privilege which you, as the president of The Woods Schools, and the Board of Trustees of The Woods Schools have extended to me in the responsibility of developing a child study, treatment and research center. Those of you who know Mr. Johnstone and members of the Board of Trustees of The Woods Schools know that this is the fulfilment of a dream.

Some time ago, the administration of The Woods Schools came to realize that the problems of the mentally retarded child are truly problems of multiple handicap; that there are very few mentally retarded children who do not have other problems besides the specific deficiency or retardation. This point was keynoted by your speaker, Dr. Dunn, who pointed out that the mentally retarded child is a whole person. He has his personal feelings, his own emotions; and he has other medical and social problems which must be dealt with. The new Child Study, Treatment and Research Center at The Woods Schools will represent an extension of the physical and the professional services to meet the needs of the multiply-handicapped child. We plan to have facilities for complete evaluation and interpretation to parents which might include recommendation for placement in The Woods Schools or referral to other facilities with definitive psychotherapy for the emotionally disturbed retarded child; equipment for electroencephalograph testing, a speech and hearing clinic, and movie and soundtrack recording through one-way screens to facilitate the study and evaluation of these handicapped children.

We plan to extend into the area of parent counseling, which was so well discussed by Dr. Hirschberg and by Dr. Kamm this morning in stressing the importance of skilled professional personnel work with parents, with parent groups, and with the retarded children of these parents. We, therefore, are extremely happy to say: "This is the opening gun. We are on our way."

Beyond these clinical services, by virtue of our affiliation with the University of Pennsylvania's School of Medicine, we plan to carry our program into two other important areas—one which you will hear about this afternoon, deals with the problems of research. We plan to work with the University of Pennsylvania in their neurology, neurosurgery, endocrinology, biochemistry, pediatric radiology, and sociological programs, so that we will truly have a multilateral approach to the problems of research to help our handicapped children.

Again, I feel it is not only a privilege to be asked to direct this program, but a deep responsibility as well. The second area we hope to stress, of course, is teaching. The point was made by Dr. Dunn in his keynote address, that we do not have enough professional people trained to carry on the important work of helping these children. We hope at The Woods Schools to set up a program to train all types of personnel, both professional and semi-professional, to help meet this most pressing need. I thank you.

CHAIRMAN HEPBURN: I would like now to reintroduce Dr. Adamson as chairman of this afternoon's panel discussion to which all of us have been looking forward. Dr. Adamson . . .

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Hepburn.

When I was first asked by the president of The Woods Schools to organize and develop a research panel, I was still fresh from Austin, Texas. I guess I still had a little of the Texas dust on me because I immediately thought of the biggest and the best research panel which we might bring to you today. I have achieved the first, I am sure. We have, for example, Dr. Duhl, Dr. Thomas, Dr. Mahoney, Dr. Kamm, on my left, and on my right, Dr. Downing, Dr. Kirk, Dr. Gallagher, and Dr. Nurnberger—certainly the biggest, and, I can't help but feel, as I have gotten to know these gentlemen more intimately in the last twenty-four hours, the best. I hope you all agree as we move into the meeting.

Our first paper this afternoon will be a summary presentation of the current status of research on the exceptional child today. There will be a consideration of what has been done, what is being done, and what needs to be done. We are very fortunate to have as our lead-off speaker, Dr. Leonard J. Duhl of the National Institute for Mental Health. Dr. Duhl received his psychiatric training at The Menninger Foundation and the Veterans Administration Hospital, Topeka, Kansas, following his graduation from the Albany Medical College. He did his undergraduate work at

Columbia University and served as research director on a study of the psychosocial and statistical problems of tuberculosis in California under the auspices of the United States Public Health Service and the Contra-Costa County Health Department. Dr. Duhl is now with the Professional Services Branch of the National Institute for Mental Health, of Bethesda, Maryland. The title of his presentation will be "The Organization and Development of Research in Mental Retardation." Dr. Duhl . . .

"THE ORGANIZATION AND DEVELOPMENT OF RESEARCH IN MENTAL RETARDATION"

By

LEONARD J. DUHL, M. D.

DR. LEONARD J. DUHL: To be asked to cover the problems of the organization and planning for research in exceptionality is to be given a very large order. Hopefully, I would like to concentrate my presentation on a more limited area: mental retardation. At the same time, by skimming lightly over various topics, with brief stops at some, I think I may be able to point to some of the present major areas of concern.

To discuss research in mental retardation is to tour into one of the most stimulating and exciting areas of concern today. We are at the beginning of a renaissance of interest and activity that holds much promise not only to those presently retarded, but also for the many whose incapacities we may soon be able to prevent. I have chosen retardation rather than other aspects of exceptionality both because of my own personal interest and because it serves as a typical example of problems each of the other fields face. At the same time, work in mental retardation crosses the borderlines of retardation into tangential fields, opening up leads and trails into important work in many other areas, such as the other exceptionalities and mental illness.

Mental retardation, in this present period, is no longer the stepchild of medicine; it is no longer the educator's nightmare; nor is it relegated to places outside the public view. Though I would be one of the last persons to say that present facilities, services, or attitudes are in any way near perfect, the last few years of activity are markedly different than the years before. With apologies to the early workers and their great work, I find that the present by far outshines that distant past, offering a hundredfold more hope for progress than just a few years ago. Treatment programs, diagnostic clinics, training programs for staff, university research, foundation and governmental interest and support are the evidences of this change.

What, then, does this present renaissance arise from? In part, from the patient and hard work of the parents and their friends who, through their activities and organizations, have made known this field to the legislatures, and to the professionals, as well. However, with no thought of minimizing their work, it is important to point out that research in many areas has broken loose many new leads. And there is nothing more stimu-

lating than new leads for either research workers or others connected with a field. Research is so often a matter of feedback. Interest and research beget more interest and research in ever-increasing areas.

To define what research is, is often a confusing and difficult problem. Attempts to define it are usually directly related more often than not to the prejudices and previous experiences of the definer. Webster's dictionary says research is "a careful search" or "studious inquiry, usually critical and exhaustive investigation or experimentation, having for its aim the revision of accepted conclusions in the light of newly discovered facts." Within these confines come various kinds of studies. However, to the sound and experienced researcher, this means not only presentation of hypothesis, but careful design and methodology. This goes not only for basic research, but also for those projects more operationally oriented, such as evaluation of day-by-day activities and fact gathering. Too often, however, the stringent demands of good research are followed by the basic researcher in biology, psychology or the other sciences; then ignored, forgotten or not taken into account by the evaluator of service activities, whether in medicine, or education. Research is more than a band-wagon to jump on. It requires more than just a desire to do it; it requires real competence. Research is required on many levels from basic through operational studies; and in many fields, such as education, sociology, rehabilitation, psychology, medicine. All kinds of research is needed to make up the truly comprehensive program we now need.

However, before I discuss some of these many areas of research interest, it is important to turn to the definition of the words "mental retardation." Though, in part, we have been aware of the fact that mental retardation is the result of many etiological conditions, we have for years talked about idiots, imbeciles, and morons as if they were diagnostic categories. We have talked and acted through our school and medical-care programs, in most instances, as if, despite our knowledge, we could put all cases in one or two baskets. Most of us know this is not true, and yet only recently has our knowledge permitted us to begin to differentiate between conditions that result from congenital, genetic, developmental or other physical influences, as well as psychological and social conditions. With further knowledge as to specific etiologies, it will become easier to differentiate the retardation caused by physical, psychological, educational, and cultural conditions. For example, the physical conditions might be traced to nutritional, endocrinal, neural, or a variety of such factors, pre- or post-natally. The psychological diagnosis may reveal the condition as a consequence of some interference in normal personality development such as would result from maternal depri-

vation. Substandard educational practices arising from differences in teacher qualification and regional expectations in educational attainment quite obviously affect the child's intellectual performance. Another item not to be overlooked is the inequities arising from differences in family background which do not observe or emphasize the prevailing cultural attitudes towards learning.

From this ever-increasing information about etiology, we may have to turn back, in practice, as well as in thought, to the concept of mental retardation as a symptom of many disorders. As we know more, it will affect our medical, our educational, and our other programs, for with specific disorders come more specific care and treatment.

That mental retardation is a symptom caused by many factors, both internal and external to the child, causes difficulties when we try to understand the true prevalence of this symptomatic condition. For many reasons, and with some basis of fact, we have almost universally accepted the fact that 3 to 3.5 per cent of our children are retarded. However, with the varied etiological causes, this may not be in fact a true figure. In the very best studies, and the Syracuse project that Dr. Downing will talk about is one of them, the problem of true prevalence as compared to reported prevalence, must be dealt with. In almost all cases, the reports of prevalence are not true prevalence, but in fact are more often directly related to community or individual concern. If no one gets concerned, mental retardation is often not reported. It is for this reason that in Gruenberg's and Downing's graphic demonstrations of age specific prevalence is important. The fact that the bulk of retardation, with its peak at thirteen years, occurs during school years points to the differences between school expectations and subsequent ability. The school, as a representative of our culture, demands an exhibition of abstract intellectual ability that does not correlate with either post-school achievements or the adult abilities to marry, have and care for families, or with economic independence. Perhaps society only begins to make use of people's true abilities in the post-school period when it absorbs the many retarded into the stream of life, thereby losing their identity as retarded. Incidentally, how often have we seen studies of educational programs in special classes report excellent post-school results, which may in fact not be the result of our activities and concern, but due to our lessening concern?

The prevalence curve of the more severe and organic retarded, however, is less responsive to these many factors and does not show the age specific prevalence difference that the large bulk of retarded show. Per-

haps, as Downing has pointed out, we are dealing with two phenomena; where the important difference is physical findings in one group and social concern in the other.

Before leaving the area of epidemiology, it is important just to note the many areas in which further comprehension of the statistical factors would be worth while. What happens as a result of institutionalization? Of our special classes, our rehabilitative programs, our clinics? Do we know the results of remaining untreated? There are a host of questions that can be asked, that can be broadly defined as epidemiological and statistical.

Recognizing the need for more knowledge about etiology, the National Association for Retarded Children, with the guidance of Richard Masland and Seymour Sarason, has begun a two-year survey of research leads into the etiology of retardation. That the NARC, an association of parents primarily interested in service, has sponsored and aided such a scientific research survey, is an indication of their increasing maturity and responsibility. Both by a survey of the literature of retardation and allied fields, and by visits to university centers, leads in both the medical and psycho-social aspects of retardation will be sought. Already, from fields as diverse as protein research and schizophrenia have come ideas and concepts worth further exploration. Since this survey has begun, we at the National Institute for Mental Health have noted that many persons have become aware of how their work relates to retardation and how the field of retardation offers challenge for study. There now is an increasing number of requests for grants and information coming to the National Institutes of Health. Independently, a Nobel Prize winner in chemistry, Dr. Linus Pauling, recently announced his intention of working in this field during the next five to ten years. This work will be a cooperative venture of Linus Pauling's group at The California Institute of Technology, with George Tarjan at Pacific State Hospital.

At the same time, the American Association on Mental Deficiency, under a grant from the National Institute for Mental Health, is attempting by conference techniques, seminars, abstracts and summaries in their journal, to stimulate training of personnel, research programs, and development of new programs in education, medicine and other areas related to retardation.

Research relating to prevention has of this date been extremely profitable. Pasamanick and Lilienfeld's studies of the interrelationship of pregnancy difficulties and subsequent retardation have recently been published. A study of the mentally retarded and a series of controls (the controls

being the next recorded hospital birth) revealed a marked incidence of pregnancy difficulties such as eclampsia, hypertension, pernicious vomiting, etc., in the mothers of the subsequently retarded children, as compared to the normal controls. Similarly, nutrition studies of both pregnancy and early childhood years offer much hope. With improved diet associated with more careful public education programs, the problems of minimal deprivations which may have an etiological significance can, in part, be dealt with. One might even hazard a guess that such nutritional deprivations not only have an effect on physical growth, but also have an effect on intellectual competence. If so, not only will this knowledge aid in the prevention of retardation, but also in understanding problems of intelligence in the "normal child." Maternal and child health programs which have traditionally focused on this area need both increased support and broadened scope.

Dr. H. V. Bronsted from Copenhagen recently reported in the *Bulletin of Atomic Scientists* his impressions that stress during pregnancy, either psychological or physical, could effect the hormonal system enough to interfere with normal fetal development. The old wives' tales of pregnancy may indeed have scientific credence.

Phenylpyruvic oligophrenia, a genetically linked disorder, has recently been shown to be the result of a disturbed enzyme system which is controlled by a single gene. This disturbance of the enzyme results in a build-up of phenylalanine in the blood leading to, among other secondary disturbances, the retardation of intelligence. Dealing with this disorder by dietary means, Armstrong in Utah has reported marked improvements in several cases. Further studies of the enzyme system and the genetic involvement may lead eventually to the development of replacement enzyme therapy. Another disturbance, galactosemia, has recently been discovered to have a similar etiology which can be controlled by diet. Research workers feel that work with these disorders offers many leads for further studies of the other retardations.

Linus Pauling, now working with George Tarjan, has brought his concepts of molecular disease into the field of retardation. Study of disturbed protein molecules, as caused by gene damage either through heredity or from subsequent damage, can open up opportunities for both prevention and treatment of various mental deficiencies and mental illness, as well. Studies of viruses, genes, and proteins have shown their interrelationship. Thus, the basic biological and medical scientists in many areas, some very far from mental retardation, now offer much hope of increasing knowledge within the very near future.

Briefly, in mentioning some of these most recent studies, I have attempted to point out some of the interesting work relating ultimately to prevention. However, if we work back into the history of medicine, we can see many conditions which can produce retardation which have been either conquered or radically curbed. Lemkau, in the past and more recently Warkany, from the University of Cincinnati, have presented lists of conditions that cause retardation which we have some knowledge about. Thus, in part, we have been able to cut down the incidence of retardation by preventive techniques. A modified and shortened list follows:

meningitis; lead and other similar poisonings; nutritional deficiencies; pregnancy complications; syphilis; German measles; obstetrical procedures in general; RH factors; radiation; endocrine disorders such as cretinism; hypothyroidism; hypoglycemia; hypocalcemia; subdural hematoma; phenylpyruvic oligophrenia; galactosemia; cranio-stenosis; sucro-suria; maternal deprivation; genetic counselling; cousin marriage; maternal age; kwashiorkor.

Even after reading this list of accomplishments, it is obvious that it is still but a drop in the bucket.

Up to this point, I have primarily mentioned medical research. However, it is important to note that other areas of study are important also. Studies of child development, learning, and a host of others broadly classified as psycho-social, though not directly applicable, offer much to mental retardation itself. These studies, like many of those I have mentioned previously, can be called basic studies. Dr. Richard Masland has recently posed the question: "What proportion of our research effort should be concerned with the retarded individuals themselves and what proportion should be in the basic science laboratory?" He notes that present research disproportionately favors the basic studies. The problem, he says, is more acute due to the unfortunate location of our schools, few of which are conveniently located with respect to our research centers. Though some institutions are affiliated with university centers, often the affiliation is loose. Unfortunately, there are some new institutions that are still being built away from such centers.

The institutions offer much material for studies in many areas. Briefly, I can only point to the need for added understanding of management problems, administration, family-institution relationships, foster-home care, boy-girl relationships, education and training, methodology, emotional factors

in etiology and treatment, and family-community problems. Again, a listing of needed studies can be almost endless.

The important point, however, is the need both for research by the workers themselves and work done cooperatively with others. The studies of Dr. Samuel Kirk, as an example, point out what can be done by a university and a state school cooperatively. We must not, however, lose sight of the need for *time* and *trained personnel*; qualified researchers not pressed by the day-by-day demands of service. Often state institutions can set up research units offering such advantages and facilities that can attract both cooperation and full-time personnel. Though my comments have been on the state schools, the private institutions offer equal opportunities for such research.

My major emphasis has been medical and psychological, as it should be, since this is my own background and interest as well as that of many of you. This does not imply that the need in other areas is not great. Quite the reverse is true. The problems of education and rehabilitation, for example, offer unlimited opportunity both to develop and try out learning theory hypotheses.

Educational research has been linked with psychology. Educational psychology has the large task of bridging the gap between basic theory and curriculum. (Dr. Kirk, among others, has done outstanding work in this area. I hope he will discuss some of the problems it presents.) Despite the achievements in educational psychology, there is need for *much* more research in education than is currently being done. At the same time, a day-by-day evaluation of present activities in education must take place. And this, in part, means nothing more than adequate statistics throughout the country that can be correlated.

The Office of Education recently drew up a list of areas needing research in education. Some of these are:

1. The relationship of learning to etiology, environmental factors, and growth and development.
2. Differential diagnosis and identification, from the point of view of the educator, including such factors as mental and social ability.
3. Special education programs in relation to etiology; their readiness and acceptance by the community and families.
4. Demonstration projects relating to adequate placement of both the younger and older retarded.
5. Curriculum and methodology changes and planning.
6. The evaluation of accomplishments of children.

Having mentioned the institution and the school, I cannot leave the discussion of needs without dipping once again into a service area. What is a comprehensive community program? Can we evaluate what we have? Can we really understand each change we initiate?

In the study of community needs, we can't help but be hit by the variety of services, personnel and programs that are involved and must be studied. Retardation comes under the aegis of many disciplines and oft-times competing agencies. Though research can sometimes be done alone studying individual factors, much of the studies require teams of individuals and many disciplines working together. For example, projects jointly sponsored by education and medicine are needed. Studies will overflow into many tangential though not unimportant areas; all the exceptionalities, schizophrenia, and the other mental illness and emotional disorders have much to gain from, as well as to contribute to, the studies of mental retardation.

I have attempted to cover a wide sweep of research and its needs as related to mental retardation. This research, however, is dependent on two important items—personnel and money. The former is of far greater import than money for there is much money available now through the states, the Federal Government, and private foundations for sound, well-designed projects. Through the Public Health Service, the Office of Vocational Rehabilitation, the Department of Defense, and possibly soon through the Office of Education, Federal support is given to research projects. The lack, then, is not the money, but of well-trained personnel, creating and working on well thought-out projects.

To look at research without at least briefly scanning training is to be negligent. For here is our bottleneck. Few agencies—medical, psychological, educational or otherwise—are training the needed researchers, or even service personnel. Until such programs are developed (and, again, monies are available), the bottleneck will continue. Both the institutions and organizations concerned with the retarded, and the universities (medical schools and the psychology departments and the schools of education) are shirking a responsibility that is very great.

We are living through a renaissance, promising to be a golden age for the study of retardation. It offers much hope for the ultimate goal of prevention. It needs, however, much cooperative and long-term planning.

As Richard Masland, in one of his preliminary reports on research, has stated: "In the long run, progress in retardation will depend on progress in many fields, and this, in turn, depends upon continued efforts to bring in-

creasing numbers of skilled investigators into research." Upon the people you train and the research you and they do, stands the prognosis for the future.

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PANEL CHAIRMAN ADAMSON: Thank you, Dr. Duhl, for this very thoughtful, extensive and penetrating analysis of where we are in research on mental retardation today.

It is certainly with great pleasure that I introduce to you the first discussant, Dr. David H. H. Thomas of Herts, England, who, as consultant to the World Health Organization, arrived with Mrs. Thomas in the United States on April 3rd for a three-month study of American hospitals and special schools.

Dr. Thomas is a member of the Royal Medical-Psychiatric Association and an Honorary Surgeon of Westminster Hospital. He is also a member of the Royal Commission appointed by Her Majesty, Queen Elizabeth, to inquire into the laws relative to mental illness and mental deficiency in England.

Prior to his present position as superintendent of the Cell Barnes Colony at Herts, he served as medical superintendent of the Royal Albert Institute in Lancaster, and later held a similar post at the Pewsey Colony for Epileptics.

He is the author of a number of articles on the problems of the mentally handicapped.

I feel we are extremely fortunate to have with us Dr. David H. H. Thomas.

DR. DAVID H. H. THOMAS, Discussant: Mr. Chairman, ladies and gentlemen:

I feel very privileged to have the opportunity to meet a group of people who are so actively interested in mental deficiency. I feel that I am speaking to old friends, since at the Royal Hospital we used to exchange regularly our programs of work with the Woods Schools.

I would like to comment briefly on the very excellent paper that Dr. Duhl has given you.

I was pleased to see the first word in his title was "Organization," and that seems to me to be very significant in the matter of research. The function of organization has a three-fold objective: 1) the more effective treatment of the individual needing it; 2) the more satisfactory integration of that person into his environmental community; 3) the improvement of the community itself.

It is not a function of research workers primarily, or even necessarily, to translate their findings into treatment. It is their function, rather, to feed new knowledge into available pools to be used by others in meaningful patterns of therapy.

Nevertheless, it appears that we frequently tend to overlook the work of research workers in its application to the programs of our institutions.

I should like to quote for just one moment a very fine piece of research which was done in 1952 by Dr. Frazer Roberts on the hypothesis that the essential causation of mental defect is divided qualitatively into two distinct groups. He directed a great deal of attention to that marginal group which has always been worrying us—namely, the people with intelligent quotient of from 35 to 60 per cent. His work produced very clear indications that there were two distinct groups of mentally defective people so far as genetic determination was concerned.

The hypothesis enunciates that the higher grade cases are derived from the action of multifunctional additive genes of small unit significance so far as the group is hereditarily determined; the second group, chiefly the lower grade cases, derives disability from single gene inheritance of major pathological significance, or from major environmental influence.

It is important that we in the hospitals and in the training schools remember to look over our shoulders to the findings of research workers. "We find, for instance, that new hospitals are still being built with the historical concept of custodial care faintly in the background, apparently with

the intention of training all grades of the retarded on the same general pattern within the same precincts. So far as the sociology of mental defect is concerned, Dr. Duhl has touched on that very significantly.

I am reminded of some of the work of F. C. Bartlett, professor of psychology at Cambridge, during World War II. He found, for instance, that perceptual and manipulative skill showed no close correlation with intelligence. The groups he was working with were (1) pilots in the fighter command and also the (2) controllers of operations who coordinated defense and attack maneuvers. It is significant that such findings in personnel selection have been absorbed very rapidly in industrial fields while we in mental deficiency work tend to overlook their significance.

In Britain, a tremendous amount of evidence has been presented to the Royal Commission, now investigating the law in its application to mental illness and mental deficiency, indicating that there is anxiety about the wide interpretation given to the term "mental deficiency."

Research in genetics, in eugenics, and in education tend to support consideration of a cleavage in the total area of mental retardation, which is not a merely arbitrary one designed for administrative convenience. Research workers can give us further available aid in providing more specific data concerning the persons we hope to help. Dr. Duhl has mentioned the field of biochemical research. The interweaving of this field with the genetic field of research becomes even closer when we study inborn errors of metabolism.

To give an example of the kind of thing that I mean, we had described to us in medical scripture in 1912 by Kinnier Wilson the disease of hepatolenticular degeneration. We assumed this was a progressive condition which finally killed the patient. Later, research has established that this disease is hereditarily determined by a pathological autosomal recessive gene but its biochemical aspects are very important, too. The metabolism of copper has been found to be significantly abnormal, and we have found deposits of copper in the cirrhotic liver, and in the globus pallidus and putamen of the brain.

This appears to be rather a far cry from mental deficiency, but we came across a child in our hospital who had a classical case of Kayser Fleischer rings of the cornea. On reinvestigation of his liver function, we found it was down to 50 per cent of normal.

I feel that it is important that we approach this factor of the integration of genetic and biochemical investigations knowing there is much work still

to be done. We must look to the research workers riot only in this field, but in many other fields as well. And that includes sociology.

We want to know, for instance, what are the factors that affect the lower range of biological normality known to produce accident proneness. Are these factors only individual ones—laziness, poor neuromuscular coordination, anxiety? Or are there factors on the industrial side, such as tools of poor design which may tend to lower the margin of safety and to produce accidents?

Are we satisfied that we know the answers to why rehabilitation fails occasionally or frequently? Isn't it possible for the experimental psychologists to help us find out the kind of factors which tend to produce failure? How often, for instance, does intelligence come into the picture of failure in rehabilitation? What about fundamental structural inadequacies; may they not be conditioned by early emotional maladjustment?

Those are just broad pictures in an area of research which I would like very much to see developed.

We've had a special program in Britain for some years which may interest you—a formalized training for the people in immediate contact with the patient, the people whom you call attendants, or cottage mothers, and so on.

We have a three-year training period for mental deficiency nurses, as we term them. Upon completion of the course, each trainee receives a certificate as a registered nurse in mental deficiency. In its first year, this course is identical with that of the General State Registered Nurses' course and a preliminary examination is passed. During the next two years, a completely different course is followed, emphasis being placed upon child development, anomalies of development, normal and abnormal psychology, knowledge of the syndromes in mental deficiency, medico-legal implications, and principles of rehabilitation, as well as upon general nursing.

In mental deficiency, problems of rehabilitation, the orientation of the nurse, and particularly the reaction of the nurse to the orientation, are important. We feel that the person who lives in contact with the patient has a most important part to play in seeing just what can be done in the way of integrating a personality which has failed to adjust itself to the community. We are not completely satisfied with our program, although we have completed very extensive research with respect to it.

This research includes the functioning of the nurse in the ward. We

worked this on a job analysis system. We selected a group of people who were entirely unfamiliar with mental deficiency practices. The project was organized by the Manchester University in conjunction with the Manchester Regional Hospital Board.

Some of the findings were most interesting. One in particular related to what we called supervision. By that, we meant the attention of a nurse in observing a patient when no particular movement or activity on the part of the nurse could be observed. This factor of observation, coded as supervision, turned out to bear an inverse proportion to the skill and experience of the nurse. There was also a marked difference between male and female nurses of like status.

The job analysis team was allowed to interpret findings and offer suggestions. These suggestions did not necessarily coincide with those of the Research Committee but they did show that further research is needed concerning persons in close contact with the patient and upon whom he is so dependent in a therapeutically oriented environment.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Thomas, for having so efficiently complemented the presentation of Dr. Duhl.

Those of you who live in Indiana and the Middle West are certainly well aware of the organizational and administrative ability of Dr. John J. Mahoney. We of The Woods Schools have been equally impressed with his many skills and are happy indeed to have him as the second discussant.

Dr. Mahoney has served on the faculties of three major universities and was an officer in the Army Medical Corps for four years during World War II.

He holds his M.S. and Ph.D. degrees from the State University of Iowa, where he also served as instructor and research assistant in zoology. At the University of Illinois, he was an instructor in physiology until joining the staff of Indiana University as Assistant Professor of Experimental Medicine.

He is now Associate Professor of Experimental Medicine and Assistant Dean of the School of Medicine of Indiana University. Dr. Mahoney . . .

DR. JOHN J. MAHONEY, Discussant: I rather suspect a good many of you are wondering just what a person with my background is doing on this panel. I am sure you haven't wondered any more than I have in the past few minutes as I listened to the presentations of Dr. Duhl and Dr.

Thomas. However, perhaps there are a few observations which I could make which might be pertinent in terms of general research approach.

It appears to me that the research in mental retardation which is going on at present is actually a two-sided endeavor. One group is actively engaged in research on mental retardation, and another very large group is accumulating tremendous amounts of data which are of extreme value in the study of mental retardation, but going at it from the point of view of other fields or with little idea of its applicability to mental retardation.

Both of our previous speakers have mentioned these allied fields, and it occurs to me, particularly from my own experience and from talking with other men in basic sciences, that there is a good deal of research applicable to mental retardation being done by men who do not realize that they are in an allied field. So it appears that one of the major problems is one of synthesis, at very high levels. Someone, perhaps the surveys of Dr. Masland, perhaps the new center at The Woods Schools, or some overall team could work in a variety of fields and point out the efforts in the basic sciences and the other clinical sciences, not recognized or realized by the individuals conducting the research.

As a specific example, I think of the tremendous amount of research which has been done in the physiology and the endocrinology of pregnancy by clinicians, by physiologists and endocrinologists, but done from the point of view of maternal health or health of the child and ending, actually, with the birth or termination of pregnancy. Taking that as a single specific example, there are large numbers of well controlled, well done studies which actually can form a basis for a continued study of these children. I refer particularly to those born after stormy pregnancies, many of which are suspected, but few are proven, of having any relationship to mental retardation. I throw that out as one example because I know there is so much work in that area.

The same sort of data has been accumulated for years, of course, by physiologists, geneticists, and others. A restudy of the data presented or a picking-up of cases which were dropped might actually contribute much to these findings.

I think there is one other thing which we at medical schools or research centers could do which would help—and that is to provide a wider dissemination of knowledge among individuals in all fields of research as to the aims and goals of projects under way at the moment. This would involve administrative activity as much as anything else. The realization by psycholo-

gists that a certain type of clinical study is being done in the Department of Obstetrics, from the point of view of the obstetrician, could be expanded and a team formed. Such a team could actually contribute more than either one working separately, and certainly without a double expenditure for many of the things which would be repeated in each project.

We have attempted to do that on a very small scale here, but ideally, I think it might be done through the National Institutes of Health on a national level.

It seems that most of us learn about a project only on its publication. In most cases, this means that that particular activity has been finished. I am thinking in my own case of a survey which we made several years ago here, involving over a thousand children in the Riley Hospital. We were interested in determining normal endocrine levels correlated with development. The children were screened primarily as orthopedic cases. After hearing some of the previous presentations here, I think some very important data might have been contributed had individuals with interest in the field of mental retardation been aware of what we were doing. It wouldn't have complicated our study in the least and certainly there could have been some additional value to it.

There is another brief point which I would like to make. One of the greatest stimuli to the production of more research workers is the initiation of more and more research projects in our medical schools. The faculty is interested in encouraging students to participate in research activities. I think the future of medical research lies with our present students and house staff. Those of you who were here last night will recall Dean VanNuys' mention of the new Psychiatric Research Institute which is being established here. We in Indiana, at least, are optimistic that we will more adequately fulfill the role we should fulfill in producing students, practicing physicians, and others who will have a certain research attitude, if not actually participating completely in research activities. We look forward to the future confidently.

PANEL CHAIRMAN ADAMSON: Thank you very much, Dr. Mahoney. I believe that in your highly provocative study of ideas among the scientific workers in all fields and your highlighting of the importance of high-level organization in overall programs of research, you have established yourself as a most important member of our panel.

Dr. Alfred Kamm was introduced to you this morning as the man who came to Indiana in 1954 with a distinguished record in the field of

mental health and welfare. After hearing his message of this morning, on the development of community services for the exceptional child, it is a pleasure to introduce him as a discussant on this panel. Dr. Kamm . . .

DR. ALFRED KAMM, Discussant: Thank you very much, Dr. Adamson. First of all, I am very glad to have had the opportunity to hear Dr. Duhl. His last sentence is one we ought to think about quite a bit: "Upon the people you train and the research you and they do stands the prognosis for the future." The emphasis on *training* of people who are doing this kind of work is very, very important, in my opinion. I would like also to comment briefly on the coordination of research work which Dr. Mahoney discussed.

As you know, there are numerous centers which are doing research in this field. Certain specialized centers are devoting their entire program to it. Colleges and universities are also working in this field, especially through their graduate students and in some cases, through special departments that have been established. Medical schools are certainly in this area of endeavor. And then we have state schools and various state institutions, including the mental hospitals. We also have our private residential treatment centers. Yes, there is quite a bit of research work going on, and it seems to me that coordination is very badly needed.

To begin with, we ought to be careful about what we mean by "research," as Dr. Duhl has explained. I have often heard talk about "research work" that is really nothing more than a survey or a study or an attempt to become familiar with this particular field.

Of course, the purpose of coordination is to avoid duplication of effort and repetition of study. We in Indiana, as Dr. Mahoney has pointed out, are looking forward to the Institute for Psychiatric Research as a coordinator of research work in our state and maybe, to some extent, on a regional basis. It would serve as kind of a clearing house for various research activities. Specialists, of course, will be used in this program.

I have sometimes wondered—and I put this in for whatever it is worth—whether research activities or these "special studies" have been a kind of escape mechanism for some members of an institution staff to get away from the real responsibilities which may not be quite as pleasant to perform or as easy to perform. Working with patients, handling ward responsibilities, can get to be rather trying. If interests or personalities are not quite suited to that kind of activity, some persons may shift over to "research

work," and as a result the hospital or institutional program can suffer from lack of adequate staffing to meet the patients' needs.

I think that covers what I had in mind, Dr. Adamson.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Kamm, for underlining the importance of coordination and for exposing some of our own human weaknesses and human motivations.

We'll now have a five minute recess, and then we'll have our question-and-answer period at the conclusion of the panel.

RECESS

PANEL CHAIRMAN ADAMSON: The second half of our research panel will be a presentation and discussion of two specific research projects selected to illustrate some of the principles of good research design, research organization, and research planning. The plan of our conference was to present the first part of our panel, making it a general discussion, general orientation type of presentation; the second part of the panel was to select two specific research projects and to discuss these.

We are very happy to have Dr. Joseph J. Downing, the acting director of the Community Mental Health Research Institute, State of New York, Syracuse, New York, as our principal project presenter this afternoon.

Dr. Downing is a native of Norman, Oklahoma. He took his undergraduate work at the University of Oklahoma and graduated from its Medical School in 1946. He served for three years as resident in Neuropsychiatry at The Menninger Foundation School of Psychiatry and the Veterans Administration Hospital, in Topeka, Kansas. He later became a faculty member at the Menninger School of Psychiatry until called to New York to become chief clinical psychiatrist of the Social Research Unit, New York State Mental Health Commission, in Syracuse. He was appointed to his present position in January, 1955.

The title of his presentation will be "The Community Recognition of Mental Retardation." Dr. Downing . . .

"THE COMMUNITY RECOGNITION OF MENTAL RETARDATION"

By

JOSEPH J. DOWNING, M. D.

DR. JOSEPH J. DOWNING: This report describes the first phase of a special census of referred, suspected mental retardation in Onondaga County, New York, conducted by the Community Mental Health Research Unit for the New York State Mental Health Commission. The survey was designed to measure the extent of the socially recognized retardation in the community. For this purpose, a measure in terms of "reported prevalence" was decided as being suitable and the date of prevalence set as March 1, 1953.

The fact that the "mentally retarded" are not a sub-species of humanity characterized by certain immutable features from birth through death is important for this survey. "Total prevalence" in this, context represents children who would have been reported by the reporting agencies if they had been complete in telling us who they actually regard as possibly retarded; "incompleteness of reporting" would be due to their failure to communicate to us all those they actually did so regard. In this study we take no position on whether a child of 5 whom no one regards as retarded but is going to be regarded as retarded at 7 on the basis of academic performance is, or is not, retarded at age 5. In the one social environment his performance is regarded as "not retarded"; in the other, his performance is "retarded". "We take no position as to which performance judgment is correct. The age curve of referred individuals presumably reflects this variation in perception of individual performance as "retarded" or "not retarded." The community's concern over mentally retarded children is over a group of children whose characteristics are generally reflected in our data: they vary enormously by age, sex, and color, and signs of retardation.

In this study, all data gathering was through community agencies. Names of children thought possibly retarded were reported by community agencies* and relevant information on each child was abstracted from agency records. In no case was the child seen.

*Contacted were 103 schools, 494 physicians and 40 private and public social agencies.

There were 4 main questions in this study:

1. How many children were referred?
2. Who referred them?
3. What are their characteristics?
4. What were the characteristics relevant to referral as "possibly retarded?"

Definition of a Case of Mental Retardation

The specific sign and symptoms included under the rubric "retardation" are heterogeneous, confused and confusing because retardation is a word covering a variety of symptom manifestations which reflect many patterns of troublesome development. The reported children have in common the fact that they need special attention because they are having difficulty acquiring one or another of the skills of living which the responsible person regards as important.

Dr. Leo Kanner* distinguishes two categories: ". . . so markedly deficient in their cognitive, emotional and constructively conative potentialities that they would stand out as defectives in any existing culture . . ."; the other ". . . individuals whose limitations are definitely related to the standards of the particular culture which surrounds them." "In less complex, less intellectually centered societies they would have no trouble in attaining and retaining equality . . . and some might even be capable of gaining superiority by virtue of assets other than those measured by intelligence tests." Considered adequate at home, their intellectual shortcomings first become apparent in academic activities.

In defining mental retardation, Dr. J. Tizard** states that six functional areas are relevant in diagnosing mental retardation: (a) anatomical and physiological; (b) intellectual; (c) educational; (d) social (social competence); (e) occupational; and (f) temperamental or moral. Severe or moderate mental retardation can be diagnosed by physiological, developmental and psychometric criteria alone. Mild mental subnormality diagnosed on social and educational factors is less easily defined. Regarding diagnosis, Tizard states that ". . . confusion arises because of errors in measurement,

*Kanner, Leo. A Miniature Textbook of Feeble-mindedness (Child Care Monograph No. 1).

**Tizard, J., The Prevalence of Mental Subnormality—Bulletin of the World Health Organization. Vol. 9, No. 3, 1953, pp. 423-439.

faulty standardization of tests and measurements, differences in growth patterns, environmental influences and lack of agreement between the different criteria for diagnosis." "Fluctuation in the threshold of community-tolerance makes the term 'mental subnormality' only a relative one, useful mainly for administrative purposes." "There is evidence to suggest that mild subnormality is not an irreversible condition."

A variety of working definitions are used by clinical and social agencies; "mental retardation" is not found to be a single discrete entity. Individuals are regarded as "retarded" on the basis of a variety of social situations and clinical impressions, involving different criteria. No one single criterion for mental retardation was suitable to this survey, since only a part of the overall social problem would have been uncovered.

Therefore, in order to be as inclusive as possible, responsible child-care agencies were requested to report all children under 18 years of age and residents of Onondaga County on March 1, 1953, identified as definitely retarded, or suspected of mental retardation on the basis of development history, poor academic performance, IQ score, or social adaptation when contrasted with their age peers.

In practice, the interpretation of this definition of a "case" undoubtedly differed with the reporting agency. It is believed that reporting errors probably resulted in a greater inclusion of false positives than exclusion of false negatives.

Findings

There were altogether in Onondaga County 3787 children referred as mentally retarded or suspected of being mentally retarded on March 1, 1953. This corresponds to a prevalence rate of 35.2 per 1,000 estimated population under 18 years of age. Ten per thousand showed an I.Q. less than 75, and two per thousand showed I.Q. less than 50. (Table 1)

Important age, sex and color differences were noted. Prevalence is lowest in the youngest ages, rises sharply at age 5 and 6, reaching a peak rate of about 80 per 1,000 at ages, 10-15, and then declines sharply at ages 16-17 (Table 2). The sharp increases in the rates at ages 5 and 6, appear to reflect the introduction of a new major source of referral—the school system. This seems likely in view of the fact that school entrance is usually at age 5 or 6, and that many children may be having their first contact with a social agency. The sharp decline in the rate at ages 16-17, may reflect the partial disappearance from the scene of the school system as a reporting agency, since the legal age for quitting school in New York State is the sixteenth birthday.

Table 1
Selected Prevalence Rates Based
on
Characteristics Relevant to Referral
as "Possibly Retarded"

	<i>Cases</i>	<i>Rate in %</i>
All Ages	3787	3.52
Known IQ under 50	218	0.20
Known IQ under 75	866	0.81
Basic Characteristics*	2947	2.74
Others*	840	0.78
Age 5-17 Years Only:	3603	5.33
Known IQ under 50	186	0.28
Known IQ under 75	822	1.22
Estimated** IQ under 50	246	0.36
Estimated** IQ under 75	1236	1.83

*"Basic Characteristics" include academic lag, organic brain disease, IQ under 75, and social maladaptation. "Others" include all remaining cases.

**Estimates were obtained by apportioning those cases with no known IQ score according to the proportion of those with known scores. This was done for each "type of care" category treated separately.

Rates for males, as well as for females, show essentially the same age pattern as for both sexes. However, there were substantial differences between sexes.

There were altogether 2452 males referred compared to 1331 females; the corresponding rates were 44.7 and 25.3 per 1,000 respectively. At each age, males had substantially higher rates than females.

In Table 3, prevalence is shown by color and sex. It may be seen here, that the sex difference observed above holds for whites as well as for non-whites. For each color, males are reported almost twice as frequently as females. In addition to sex differences, important differences between colors are present. Non-whites were reported relatively more often than whites. The rate for non-whites was more than 3 times as high as that for whites. This difference was true for males as well as for females. However, in terms of numbers, the great bulk of reported cases were white—there were only 269 non-whites reported.

Reported cases and prevalence rates are presented by color for Syracuse

Table 2
Prevalence of Suspected Referred Mental Retardation by Age and Sex:
Onondaga County,
3/1/53

Age in Years	Reported Cases			Rate per 1,000 Est. Pop.		
	Both Sexes	Males	Females	Both Sexes	Males	Females
	Total	3787*	2452	1331	35.2*	44.7	25.3
Under 1	19	14	5	2.2	3.2	1.1
1-2	67	42	25	4.1	5.1	3.2
3-4	95	70	25	6.3	9.3	3.4
5	170	104	66	21.9	26.2	17.4
6	265	167	98	39.1	48.0	29.7
7-9	827**	535	291	47.0**	59.6	33.8
10-13	1464**	942	521	76.3**	95.2	56.0
14	334**	217	116	81.9**	103.1	58.8
15	316**	203	112	77.5**	96.4	56.8
16-17	227	156	71	28.1	37.7	18.1
Unknown	3	2	1			

* Includes 4 cases with sex not stated

** Includes 1 case with sex not stated

City and the balance for Onondaga County ("Rest of County"). The majority of the children reported from each color group were residents of Syracuse City. The rate for all colors was somewhat higher for Syracuse City than for the "Rest of County." However, for whites there was no important difference in the rate between the city and the "Rest of County." For non-whites the city rate was apparently much higher than the "Rest of County" rate but this cannot be stated with too high a degree of confidence. There were only 16 non-white children reported from the "Rest of County" but 144 cases of unknown color were also residents of the "Rest of County."

(The "Non-White Area," consisting of census tracts 32, 33, 34 and 42, accounts for more than 80% of the non-white population of the county.) It may be seen that the rate is higher in the "Non-white Area" than in the other two areas in the County. This is true for whites as well as for non-whites. Within each area, however, the non-white rate is still considerably

Table 3
Prevalence of Suspected Referred Mental Retardation by Color:
Non-White Area,
Rest of City and Rest of County,
3/1/53

	Total	Reported Cases		
		White	Non-White	Unknown
Non-White Area	537	291	210	36
Rest of City	1748	1564	43	141
Rest of County	1502	1342	16	144
	Prevalence Rates per 1,000 pop.			
Non-White Area	87.8	64.3	132.2	
Rest of City	31.2	28.1	99.5	
Rest of County	33.4	30.0	88.9	

higher than the white rate. This suggests that the higher overall non-white rate may be partly a reflection of characteristics connected with place of residence and partly a reflection of other characteristics. It should, however, be noted that prevalence rates reflect the type of cases known to community agencies as well as the actual prevalence of mental retardation. In this connection there is a high concentration of community agencies in and around the "Non-white Area," which may in part account for the higher rate observed here.

In Table 4, "organic brain disease" cases are shown by specific diagnosis, age and sex. (It should be pointed out again that all information was abstracted from available records—in no case was the referred child seen). A total of 442 children or 12% of the roster of 3787 children, were classified as having one or more "organic" diseases. Altogether 480 such diagnoses were made for these 442 cases, with the most common one, cerebral palsy, accounting for 128 cases, or 29% of the total "organic" cases.* Epilepsy was present among 104 children, mongolism among 80 children and "organic" disease of unknown etiology among 70 children; all remaining diagnostic categories were relatively rare.

Of the 442 "organic" cases, 103 or 23% were of pre-school age and 339 or 77% were of school age. Of the 103 pre-school age cases, 73 were

*The relatively large number of palsied children in this survey is undoubtedly due in part to the presence of a cerebral palsy clinic in Syracuse and a generally high community awareness of cerebral palsy.

Table 4
Organic Cases of Mental Retardation
by Diagnosis,
Age and Sex:
Onondaga County, 3/1/53

Diagnosis	Total	Males		Females	
		Under 5	5-17	Under 5	5-17
Total Organic Cases	442	73	171	30	168
Epilepsy	104	14	43	3	44
Cretinism	8	....	3	1	4
Mongolism	80	17	29	6	28
Cephalic Deformities	18	4	6	....	8
Cerebral Palsy	128	15	51	13	49
Amaurotic	2	....	....	....	2
Post Infectious	25	1	10	2	12
Hydrocephalic	24	12	6	3	3
Luetic	2	....	1	....	1
Other	19	4	10	....	5
Unknown	70	13	26	4	27
Total Organic Diagnoses	480	80	185	32	183

boys and 30 were girls; the 339 school-age cases on the other hand were about equally divided between the sexes.

For each of the four age-sex groups, the most frequent diagnoses observed were essentially the same as those mentioned above.

Comparison with Similar Studies

Two previous studies are roughly comparable to the present one. These are the Wood Report of England and Wales in 1929, and the Lemkau, Tietze and Cooper Survey in the Eastern Health District of Baltimore, Maryland in 1936.

In Table 5, age-specific prevalence rates of mental retardation are shown for the English Survey, the Baltimore Survey and the Onondaga County Survey. Both the English and the Baltimore studies show the characteristic age pattern already described for the present study. Prevalence is lowest in the "under 5" age group, then rises sharply reaching a peak for the 10-14 year olds and then declining. The level of prevalence, however, is seen to be highest in the present study. Some of the factors that should be considered in attempting to account for observed differences between the present survey and the earlier ones are:

Table 5
Age-Specific Prevalence Rates of Mental Retardation in
Three Surveys
Rates per 1,000 Population

	England & Wales*	Baltimore**	Onondaga County, N. Y.
	1929	1936	1953
Under 5	1.2	.7	4.5
5-9	15.5	11.8	39.4
10-14	26.5	43.6	77.6
15-19	10.8	30.2	44.9***

*Report of the Mental Deficiency Committee, being a Joint Committee of the Board of Education and Board of Control, Parts I, II, III, IV, London, England, H.M. Stationery Office.

**Lemkau, Tietze and Cooper, *Mental Hygiene Problems in an Urban District*—third paper. *Mental Hygiene*, Vol. XXVI, No. 2, April, 1942, pp. 275-288.

***Rate for the age group 15-17.

1. Difference in the definition of a "case".
2. Differences in the kinds of referring sources and the number of referring sources.
3. Time differences.

In the present study, a more inclusive definition was employed. Moreover, all schools and child-care agencies in the County were potential sources of referral. In addition, the present survey was conducted 17 years after the Baltimore Survey and 24 years after the English Study in a social climate of greater awareness and appreciation of the problems of mental retardation. Each of these factors would be expected to make for a higher rate in the present study than in the earlier ones.

Discussion

This study reinforces several concepts regarding the nature of mental retardation, and the social approach to the amelioration of the problem. It demonstrates that the social interpretation of the "mentally retarded" concept covers a wide range of inadequate, unsatisfactory or disturbed performances of varying etiology. "Retardation" is not a constant, but fluctuates, so that an individual may be so designated at one point in life, but not considered such at a different point in time or place. As a social phenomenon,

it might be defined as a childhood behavior disorder of varying etiology increasing to maximum prevalence at age 14, with spontaneous recovering taking place in the majority of cases by age eighteen.

This definition does not ignore the minority of cases in which cerebral function is limited, due to organic damage or some constitutional defect. It suggests that the degree of maximum potential performance can be estimated only after trial in an adequate social, educational, and emotional environment. Since demographic factors such as age, sex, color, and dwelling place are associated with wide variations in the recognition of retarded performance, planning for remedial services must take these factors into account. Community programs for assisting children designated as "retarded" should take a wide view of the individual-social equilibrium, if programs are to provide maximum opportunity for the greatest number of children. Specifically, since the child's capacity for environmental adjustment is limited, close cooperation between family, school, social agencies, and health personnel may be essential to producing any significant improvement.

One point further: the classification of children as mentally defective by teachers, administrators and other professionals should not be viewed independent of the implications of such a diagnosis for the child. The most obvious influence would be expected in those formal relationships with children which would be affected by such an impression of the child. For teachers, this might result in resignation concerning the child's lack of achievement, communicated to other teachers and members of the class with a resulting impact on the child's relations with friends and playmates. For the social worker it might raise questions of institutionalization and reduce the likelihood of casework directed toward increased effectiveness in meeting environmental problems.

In those cases where thinking along this line is communicated either directly or indirectly to the child's parents, we may find far-reaching implications. Since the child is important to the parents, they may try to prove the invalidity of the diagnosis. With such a mission, the focus on the child in the family may be lost in favor of "a cause" or crusade; compensating for guilt and anxiety by proving the diagnosis wrong. The child's problem is neglected, as the problem of the parents becomes foremost.

In those other cases where the child may be rejected for a number of tangential reasons, treated with hostility and generally nonaccepted in the family, such information may be readily accepted. This may happen particularly if the parents overvalue the judgment of others and are largely

"other directed" to use Reisman's term. Here we might expect the family attitudes and methods of relating to the child based on the notion that he is in fact retarded to result in confirmation of the diagnosis. The controls instituted and the orientation of the parents might be such as to prevent the development of confidence, social poise and actual independence. Particularly in learning to function independently outside the family, the controls instituted may actually inhibit the acquisition of behavior patterns which would make independent functioning in society a possibility.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Downing, for sharing with us the thought, the organization, and the planning that must go into a specific research project and its design and helping us to know more accurately the apparent prevalence of retardation in our communities.

As our discussant for Dr. Downing's paper, we are privileged to have Dr. Samuel A. Kirk, dean of research and teaching in the field of special education in our country.

Dr. Kirk is internationally known as an author and authority in the field. The handbook for parents, "You and Your Retarded Child," of which he is co-author, was published in 1955 and has received wide acclaim.

A former president of the International Council for Exceptional Children, he has worked in this area for more than twenty years.

In 1949, Dr. Kirk pioneered at the University of Illinois a child development project in which studies were made to determine the effects of pre-school education on the social and mental development of children who showed slow mental growth at an early age. This program was transferred, in 1952, to the Institute for Research on Exceptional Children at the University of Illinois, with Dr. Kirk at its head.

The institute is the first of its kind in the country and was established to provide opportunities for training research workers in its area and, through research, to improve the effectiveness of the work of both public and private agencies for exceptional children with new understanding of their problems and needs.

It is my privilege to introduce Dr. Samuel Kirk.

DR. SAMUEL A. KIRK, Discussant: Dr. Downing has presented a study in the social field. I think it represents a very good effort to solve the age-old problem of determining prevalence of mental retardation.

It sounds easy, you say. How many mentally-retarded children are there? Why, just count them! But it is not that simple. As Dr. Downing said, there are many factors to consider. First, what do we mean by "mental retardation?" How do we measure it? How do we determine it?

In order to illustrate the complexity of this problem, I should like to vary the procedure by making comments and by asking Dr. Downing questions and giving him an opportunity to reply.

First of all the interpretation of "data", as Dr. Downing has given it, is dependent primarily on the methodology used. How we interpret "data" depends on how we obtain that data. When we draw curves or show graphs and figures we must ask about the validity of these data. Are they true figures or artifacts of the methodology used?

I am a little bit sensitive to the problem of incidence because, as Dr. Adamson said, I started a pre-school project and went out trying to find retarded children at the pre-school level. We asked doctors and social agencies to refer such children below the age of six to us. But we couldn't find many retarded children. This is similar to the results Dr. Downing has obtained.

At the Health Department, on the other hand, the nurses said: "Oh, yes, we know many retarded children." And they gave me a list of forty-two mentally retarded children in the community. We examined these forty-two children and found only one who was mentally retarded. In the judgment of the nurse, mental retardation was dependent primarily upon the sanitary condition of the home. Apparently the more mucous and dirt on the face of the child, the lower was his I.Q.

I personally went to these places to find the children and to ask permission to examine them. I found them in trailer camps, garages, and many substandard homes. Some of them had I.Q.'s of a high rating and, by other criteria too, were not retarded. So I am very sensitive about referral agencies. One doctor said that he had no retarded children. Later, by tapping at doors and going other places, we found three retarded children who were patients of this one doctor. He had not detected that they were retarded because he hadn't looked for retardation. His report said: "I examined Sally for measles on this date," or for chickenpox on this date, or for something else. He was not looking for mental retardation when he examined these children. I would say from this experience that, at the pre-school level, mental retardation is not usually recognized by the agencies and physicians unless it is very severe.

This may not prove anything, but I am going to ask the question here

as to whether the low prevalence found by Dr. Downing at the pre-school level is not dependent on the methodology used, through which individuals are referred by agencies.

Another question pertains to the high percentages of retarded children of school age. When we ask teachers of regular grades to refer children who are mentally retarded we get about 50 per cent to 60 per cent over-referrals. Teachers refer *educationally* retarded children such as normal children who are not learning to read, because they confuse educational retardation with mental retardation.

Educational retardation is only partly contingent upon mental retardation. It is also the result of sensory handicaps, emotional problems, reading disabilities of all kinds. And so I would judge—I am just raising this question, Dr. Downing—that the increase in prevalence which you report at the school age level is due to teachers' over-referring of children. I wonder if those factors were controlled in your study and I bring these questions up to indicate to the audience just how difficult it is to control some of these factors.

PANEL CHAIRMAN ADAMSON: May we have your comments, Dr. Downing?

DR. DOWNING: As to the first question about reporting pre-school children, I agree. Yet it relates to an example that I gave initially—Is the child who is not academically apt at seven, but who seems perfectly normal at five in the home, actually retarded? Academically, it is retarded. As to the reporting level, I would say that the greatest error in the pre-school category came in the middle-class and in the upper middle-class groups. Poor folks don't have any privacy. In consequence, with visiting nurses and social welfare workers running in and out, their children tended to be diagnosed and reported in a survey more than the middle and upper classes where the physicians saw them—and the physicians didn't tell us.

One group which might be comparable is the organically-diseased group. These did not show any significant age deviation. So I would say, at least, that the most severe group—probably the under 75 I.Q. group—are fairly well reported even under age five. But the borderline group, I think, are not reported.

As to the teacher referrals, as you saw them in the known I.Q. group, we had a lot of children with high I.Q.'s, or at least certainly above 90 I.Q.

DR. KIRK: Are those according to test results?

DR. DOWNING: They were. All kinds of tests. I think we had over-referral there. That's why I pointed out the 2.7 per cent showing characteristics which at least indicated retarded performance in some areas.

One fairly possible guide—now these all are just lines of sight—they don't prove anything—one possible guide is that, in the second phase, we went out and had to determine whether a child was actually excluded from school. Incidentally, you'd be surprised how hard it is to find out if a given child was excluded from school, even though it says so in the roster. "We found only six or seven whom we had not picked up in our survey, and this amounted to an error in this group of about 1 per cent overall, which is not a great error.

DR. KIRK: Now, the question that I raised, I am sure has been raised in Dr. Downing's mind, because he said he was going to take a sample and test the validity himself, but I wanted to bring this out: You wouldn't do that if you had complete, 100 per cent, confidence in your referral method of determining the prevalence of mental retardation?

DR. DOWNING: No, sir.

DR. KIRK: I just wanted to point out that that's what we have to do in much of this research—to find out that we may not have adequate information, and then do something further or continue to refine it, as Dr. Downing has done.

One other point Dr. Downing, was this: You noticed that at the age of fifteen, sixteen and seventeen, the prevalence of mental retardation dropped. That is a very important point. It is quite important from several points of view. One is that it may be a factor of the methodology used. A child may be retarded at ten, and the teachers may say he is retarded because he doesn't do some abstract work in school. He may still be retarded at the age of twenty-five, but he would be in a different culture—we would be using more of a social criterion at that point—and so the child hasn't changed so much, but we have shifted. It is our shift rather than the shift of the individual himself—a cultural shift in values and estimates.

You also mentioned spontaneous recovery. I don't believe that you can draw that conclusion from a cross sectional study. I ask this as a question: Suppose you took these children in 1953 and followed through in order to

see how spontaneous their recoveries are, because only from a longitudinal study can we come to that kind of conclusion. Since our time is about up I should like to present one point that I think faces all workers in the field of mental retardation. The point is this: Alfred Binet organized a psychological test—an individual psychological test—for the purpose of determining mental retardation. That is a quantitative and objective method. We find that there are other factors involved especially when we shift our definition. We say that a social criterion at the adult level is the important one rather than the I.Q. But, to date, none of us has evolved a social criterion objectively, and for research workers in general, that's one of the major fields. Unless we have a quantitative objective measure of social competency, we are going to conduct studies and then question our data. We really don't have that objective measure. The more we look into it, the more respect I have for Alfred Binet. He gave us something quantitative on which we can use an operational definition and say; "As based on the I.Q., this is what we find." When we base it on some of the criteria that we use in the social and other areas, then we seem not to be able to agree on whether this is it, or isn't it, and I am sure you have found this to be true.

DR. DOWNING: That's right.

DR. KIRK: I think that's about all, Dr. Downing.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Kirk and Dr. Downing, for this very fine illustration of interaction and communication between research workers.

I think our second project follows quite logically from the discussion which Dr. Kirk has opened up here. It is titled "Research Design in Mental Deficiency." It is to be presented to us by Dr. James J. Gallagher, assistant professor of the Institute for Research on Exceptional Children at the College of Education, University of Illinois.

A clinical psychologist, Dr. Gallagher did his undergraduate study at the University of Pittsburgh and holds his M.S. and Ph.D. degrees from Pennsylvania State University. His internship was served at Southbury Training School in Connecticut.

He was director of Psychological Services at the Dayton (Ohio) Hospital for Disturbed Children for a year following graduation, then became assistant director of the Psychological Clinic at Michigan State College until 1954.

He has been on the faculty of the University of Illinois for the past two years. Dr. Gallagher . . .

"RESEARCH DESIGN IN MENTAL DEFICIENCY"

By

JAMES J. GALLAGHER, PH.D.

DR. JAMES J. GALLAGHER: It is with a great deal of pleasure that I appear here today, not only because I was invited to speak at this Woods Schools meeting, but particularly because of the title of the particular topic I was asked to discuss.

I am going to tell you about a three-year program concerning the trainability of brain-injured children. I am not going to pretend that it is mine alone. The thoughts of Dr. Kirk, myself, and other members of the Institute staff, such as Dr. Benoit, who is the head of the project at Dixon State School, are undoubtedly intertwined and I doubt if we could ever untangle them again. Therefore, I am speaking now for the general project as much as for myself, although I will take responsibility for what I am saying.

Whenever someone finds out that I am involved in a project on the trainability of brain-injured subjects, children, the first question usually asked is: "Well, how are things coming; what are you finding out?"

A very natural question, and it is a very difficult task to attempt to explain that "how things are coming" is tied very closely to the design of the research. Thus, at this meeting, I will primarily discuss the research design of the project, rather than brain-injured children as such.

I think that too many people still consider research as best symbolized by a cyclotron throwing huge electric charges across space or perhaps, alternatively, someone in a white coat pouring a smouldering liquid from one flask to another. Too few people realize that research is really a way of life or a way of looking for the truth, whether it be in the natural sciences, the physical sciences, or in the social sciences. To be more specific, research is a way of narrowing down or eliminating various possible answers to the questions that the researcher poses, until one is eventually left hopefully with one answer which can be considered about as much of the truth as we can get at this time.

Attempts to apply research methods and controls in educational systems bring about, I think, a much more complex task than that generally facing the laboratory worker. Yet, if we who are involved in educational research are to lay claim to any kind of scientific respectability, then we must make

an honest attempt to apply as many controls and eliminate as many possible answers as we possibly can.

There are a number of fortunate circumstances which allowed this experiment to get underway in the first place. I will mention just two of them. One has been the complete cooperation of Mr. Robert E. Wallace, superintendent of the Dixon State School, at Dixon, Illinois. He has made all possible facilities available to us—including a building in which to operate. Second, funds were made available to carry out this long-range project through the Mental Health Fund of the Department of Public Welfare in the State of Illinois. If any of you are from states other than Illinois, and don't know about that Mental Health Fund, you should find out about it; it is a wonderful thing for research people.

The purpose of the project is to determine experimentally the effect of clinical training of the intellectual functions of the brain upon the general mental and social development of brain-injured, mentally-defective children. By "intellectual functions," I mean the functions of perception—attention, visual and auditory; memory and discrimination; problem-solving; language development; and quantitative thinking.

The basic plan was to take 20 brain-injured children ranging in age from 7 through 12, with I.Q.'s ranging from 40 to 70, and to intensively instruct them by individual tutoring for one hour a day in the various intellectual functions. Each child would have a training program especially designed for him or her on the basis of his or her own strengths and weaknesses in these various areas of intelligence. Once we decided upon what we wanted to do, the purpose of the remaining design of the research was to eliminate, as much as possible, those factors which might influence or cloud the interpretation of the final result. That is, we have had to say to ourselves: Let's suppose that these children improved from our point of view under our training in this particular situation. The number of possible reasons and causes for such a circumstance occurring are numerous. I would like to pose to you the questions that occurred to us as well as our attempts to answer them so that you can see the way in which we tried to narrow down the limits of our study.

The first question is: 1.) *Would these children have improved anyway without any special care?*

To answer this question, we obtained 42 brain-injured children of the age and ability level previously mentioned, and matched them by pairs on the basis of a test of general mental ability . . . that is, the top two children

in mental ability would be our first pair; the next two would be the next pair, and so forth.

One member of each pair was then placed in the *Experimental Group* and one in the *Control Group*. This procedure tended to insure that both groups of children, experimental and control, would be starting from the same level of mental development. The control group underwent the regular institutional training program, but received no special care from us. We felt that the performance of this group would give a general indication of what might have happened if no training at all were introduced.

The second question that might immediately occur to you: 2.) *Suppose there were some unconscious bias in choosing the best teaching prospects among the forty-two brain-injured children in our experimental group*

It would be only natural and human to pick out those children we thought originally would have the best chance to respond to this kind of training program. To spare ourselves this fault, we chose the member of the pair who went into the experimental group and the one who went into the control group by flipping a coin so that there could be no possible personal influence upon the choice.

The next question is: 3.) *How do you know these children are really brain-injured*

First, these children were chosen on the basis of the Riggs and Rain Classification System, which is a method of objectively handling case history material. Secondly, each of these children was administered an EEG test. And, third, each received an individual neurological examination. Now, one of the purposes of such close examination, besides checking on our own diagnosis, was to determine where and to what extent the injury to the central nervous system was in each case. We have hopes that this may later be tied together with some of the psychological and educational findings.

The next question might be: 4.) *"Why do you think this particular approach of using individual tutoring should produce changes in the development of brain-injured children*

The history of the brain-injured adult and children is one of specific and unique types of intellectual difficulty. This problem is generally accompanied and compounded by the individual's inability to inhibit his behavior and to maintain attention for any length of time, especially under conditions of distraction. It was therefore felt that an individual situation wherein the teacher would be able to control the amount of distraction and also to give

instruction to the child which would fit his individual skills and disabilities, would stand the best chance of producing change in these children, if change were to be produced.

The next question: 5.) *Perhaps your desire for good results has led you to believe that there were real changes when, in fact, there weren't any*

This is perhaps one of the most serious deficiencies of the informal type of investigation all too common in educational circles, in which the individual reports what his or her feelings were about the effects of a particular teaching method of one sort or another.

Undoubtedly after any one of us has worked for a year or more with a particular method, it is only natural to hope that we are doing something that is pretty important and worth something. In order to make an evaluation of our results as objective as possible, we have used an extensive battery of tests and measurements of general intellectual abilities, specific perceptual abilities, language development, quantitative thinking, learning aptitude, social and emotional development, and other facets of a child's performance.

These instruments were administered before the experiments began and are administered at one-year intervals for the length of the three-year experiment. For the most part, these tests and measurements are being administered by people who are not aware which children are in the experimental group or the control group, and thus they are not in a position to bias their behavior in favor of or against the experimental group. At times, we have used testers who do have some knowledge of who is in what group, but we attempt to give them those measures to administer which are less influenced by personal position and judgment of the examiner.

The next question is: 6.) *Maybe these children who show particular gains would do so because they have a particular type of brain injury or an injury to a particular part of the brain, and thus the results might not be applicable for children with other kinds of injuries*

Perhaps this is true. However, it would seem to be at this time well nigh impossible to be specific about the type or position of the injury, short of autopsy. From a practical standpoint, we can only consider that we have obtained as much of a representative sample of brain injury cases as it is possible to get in an institution. These cases which also showed evidence, incidentally, of possible familial causes—that is, they have had brothers, sisters, or parents who were also retarded—were eliminated from our groups because we wanted our group as pure diagnostically as possible.

7.) *Could favorable results be due to one outstanding teacher whose work and ingenuity could not be matched by ordinary teachers and therefore would have limited application elsewhere?*

We attempted initially to avoid any special assignments of children to teachers and, as a matter of fact, assigned them much the same way as the children were first placed in the experimental and control groups. Of course, we are in a position to check the gains made by children who were tutored under different teachers. If one teacher is really very outstanding above the others, this fact should show up in the relative gains their children make as opposed to the children of other tutors.

8.) *If there are any significant results, can we identify the kind of teaching methods which made them possible?*

This is a difficult question to answer. Our teachers are presently keeping daily diaries of their work with each individual child and making monthly reports on each with respect to the successes and failures of the various methods used and also the various intellectual skills which they are attempting to work with. It is hard to tell at this point whether all this extensive note keeping is going to pay off in anything significant. However, we feel that this is the best approach at this particular time, and that it will at least give us some hints, as far as teaching methods are concerned.

Now we will get to some good questions!

9.) *Perhaps teaching methods as such do not influence the results we are obtaining as much as the warm human contact of having a close personal relationship with an adult?*

This, of course, is an especially important factor in any institution which deals with large numbers of children. If we obtain results from the present experiment, I must say that it cannot be determined by our design whether it is the warmth of the individual adult working with the child, or warmth plus specific types of instruction we are using which might be responsible for the change. Theoretically, it would be possible to set up three groups: one group receiving no unusual contacts; another receiving the kind of contact you get in play therapy settings where no specific instruction is attempted; and the third group would get the benefit of both personal relationship and specific types of instruction. This was impractical from a personnel standpoint and lack of enough subjects to fill such a design. When we applied all our selection criteria, we could find only a few more subjects than we needed for our design of forty subjects.

10.) *Perhaps improvement that might be obtained will be significant*

only for the period of time that the tutoring is applied and will disappear whenever individual attention and instruction is removed}

This is undeniably a possibility and, to combat this, we have set up some specific controls. Our present experimental group, which has been tutored now for two years, will, this June, cease receiving individual instruction and for the next year, will receive no instruction at all. On the other hand, the present control group, in which the children have not received any individual instruction for two years will next fall, be seen for individual tutoring. Essentially, what we did was to switch our groups at the end of this year. Now, from this procedure, we will be given a year to determine whether or not our present experimental group can maintain gains they have made over this next year. We would also expect, if our training is effective, to see more or less substantial gains in the present control group in their ability to improve under a year's tutoring.

11.) *What range of application will any results that you get from this experiment have?*

This is truly the \$64,000 question for any experiment, and I must say again that there is a very human temptation, after working on this experiment for a long period of time, to attempt to give it the widest possible application and make it as important as possible. But we should consider that we are working only with a total of 40 children, and that these 40 children have the common characteristic of being institutionalized. However, we believe it does follow that, if our teaching methods work with institutionalized brain-injured children, they would stand a good chance of working with brain-injured children living in the community. At least, these methods could be used as a focus for future educational research extended to community situations. Of course, another over-all limiting factor which must not be forgotten is that we are dealing with mentally retarded brain-injured children and those children that have had severe-enough neurological brain injury to produce mental deficiency may well present different educational problems than those children who have had minor damage to their central systems.

As you can see, we have attempted to apply many of the controls of a laboratory situation to what we feel is a pertinent and important educational problem. The extent to which we have been successful in maintaining the integrity of both methods and the problem to be investigated must be left to you and to future critics. Of course, the overriding truth to come out of this research is that the surface of the problem has only been scratched. Any research project tends to raise more questions than answers, and this is certainly true of ours.

One would have to be quite a prophet to say wherein would lie the greatest value of the present experiment. Often research, as you know, brings favorable results in totally unexpected directions. Perhaps it will be the development of new measurement techniques, rather than anything to do with brain-injured children. Perhaps it will be a discovery of some relationship between a particular area of injury to the brain and responsiveness to various educational techniques, or perhaps it will be the development of a curriculum for teachers for use with various brain-injured children. Or again, perhaps nothing of importance at all will come out of it. I shudder when I think of that.

The final direction our present work will take us, still remains to be determined at the end of June, 1957, when the present three-year project comes to a close.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Gallagher, for this splendid presentation.

Prior to his coming to Indiana University as professor and chairman of the Department of Psychiatry at its School of Medicine, Dr. John I. Nurnberger was director of Education and director of Clinical Laboratories at the Institute of Living, at Hartford, Connecticut.

Dr. Nurnberger is a graduate of Northwestern University Medical School. He completed his residency work at the Neurological Institute in New York before going to Hartford.

He was also a fellow in cytochemical research and genetics at the Nobel Institute in Stockholm, Sweden.

We feel fortunate therefore, in having Dr. Nurnberger on our panel and in being able to ask him to discuss Dr. Gallagher's presentation. Dr. Nurnberger . . .

DR. JOHN I. NURNBERGER: Thank you, Dr. Adamson. I know the time is limited, but I want to say one thing about so-called controls. We struggle valiantly to provide control groups, and I wonder sometimes why we do such a heroic job of this. When you come right down to it, there can be no strictly comparable controls in a problem as complex as this which involves, presumptively, brain damage and myriad disturbances in function. Functions are disturbed in children not by brain lesions alone, but by *brain lesions in an organism molded by previous experiences*. Experimental studies also point to this conclusion. I doubt very much whether one should put too much

emphasis on the so-called control group here, even though it has **been selected** with the utmost care and discrimination.

I also wonder about the control group from the standpoint of **the** experience to which this group will be exposed during the experimental period. There is no such thing as a control group of human beings maintained *in vacuo*. All you can say is that the experiences to which you expose the experimental group will be different from those to which you would expose the control group, but obviously, the control group will be faced with real situations during the experimental period too, and within such an environment, learning will proceed. It may be a little presumptive of any of us to say that we teach; that we know the actual criteria which justify labelling some experiences as teaching or training and others as non-educative. It would appear to be important to pay attention to the experiences of the control group during this period. If one ignores these, some very important sources of information about the growth and development of such children may be missed or obscured.

I hope to see a more defined interest in the previous experiences of the two groups of individuals the authors are studying, as I mentioned a few moments ago. It has been shown in well conceived primate experiments of Pribram and his group that the behavioral effect of specific brain lesions is **not** only influenced by the locus of the lesions and their magnitude, but also by such factors as the social position and role of the animals in their colony life. For example, the behavioral effect of lesions in the medio-basal, temporal portion of the brain seems to depend upon whether the animal studied was in a dominant position or in a submissive or following position in the colony hierarchy. This is, I think, a matter of considerable importance. Along the same line, Dr. Masserman and his associates recently reported that the individual adaptive and learning capacities of primates play a significant role in determining not only the functional deficits which follow experimental brain damage, but also degree of functional recovery during subsequent retraining.

Whether there is an acceptable control group or not is really not so important. What are more urgently needed are very detailed data about various areas and modes of performance for each individual, with measures of individual movement as a result of training or control experience. Some of these measures have been outlined extremely well in this experimental study. Given such information, the authors need not worry whether the theoretical but realistically non-existent group changes significantly during retraining. Vital data on the behavior of individuals will have been collected but it will ultimately be interpretable more as projected on a factual grid of previous experience and function rather than on a tenuous grid of statistical control.

PANEL CHAIRMAN ADAMSON: Thank you very much, Dr. Nurnberger. I think, Dr. Nurnberger, we will ask you, if you will so favor us, to be the lead-off man in one of the next research panels of The Woods Schools Annual Spring Conference.

I do apologize, as chairman, for the fact that we have run over our 4:30 time without getting to our questions. However, before we do get to that, I would like to ask Dr. Samuel Kirk if he would summarize for us the highlights and the significant points brought out in this panel today. Dr. Kirk . . .

DR. SAMUEL KIRK: I'd like personally to thank The Woods Schools for bringing together scientists to this meeting to devote one session to the organization and development of research.

This afternoon the speakers and discussants have attempted to present the various problems, first as problems of research on the mentally-deficient in general, and, secondly, to give several examples of specific research in this field.

As Dr. Duhl pointed out very clearly, we are going through a renaissance in research in the field of mental retardation, due in part, to the new ideas that are being created by a great number of individuals from different disciplines. Since we are dealing with human beings we must naturally rely on all professions for research. The services provided by the professions dealing with medicine, psychology, social work, and education are not the only ones concerned with the problem. The field of mental retardation has now become the concern of many—chemists, physicians, mathematicians, biologists, sociologists and many individuals who earlier did not think of the problem of mental retardation.

We have at last, according to Dr. Duhl, begun—and I should underline "begun"—to mobilize our national resources, our intellectual resources, for an all-out attack on the problem of mental retardation. This is the exciting and stimulating renaissance that Dr. Duhl has mentioned.

Dr. Mahoney has pointed out clearly that research is going on in mental retardation both directly and indirectly. I want to emphasize that point, because we never know who is really going to discover the facts that become significant in either prevention or management of mental retardation.

One of our problems, as was indicated by a number of discussants, is a communication between the workers in the field of mental retardation and those in the basic sciences. I think that's one of our major problems today:

to get the laboratory worker to understand the problems of the service worker and the service worker's ability to point out the relevant problems which could be worked on by the basic scientists.

Now, the two examples of research discussed here were in the sociological and educational field.

Laboratory experiments, I found, are sometimes relatively easy to control as compared with the broad subjects that Dr. Downing has reported and Dr. Gallagher has presented.

I was interested in Dr. Nurnberger's statement about controls and other factors. I think that brings up a very important point. The physicist who knows all the variables with which he is working, usually changes one and sees what happens. He does not have to use control groups in his research but as you go down the line to the social sciences, you don't know the variables, so you have to depend on the god probability, randomization and chance. We find that randomization, statistical theory, and that sort of thing is important in our work because we don't know the variables. We have to control them by randomized methods of selection of subjects.

And so, even in education, maybe we have to forget about perfect controls in some studies, because we never can really control one human being as equivalent to another. The statistician says: "If you randomize or flip coins, the variables will balance out themselves." And that's one of our problems, I think. We have to conduct both kinds of research.

The problem of prevalence has been studied sporadically for many years, and people have asked: "How many do we have?" I am very happy to see that the New York group, under the direction of Dr. Downing, is working on this problem. I think the significant aspect of this kind of social research indicates that it isn't a six-month job. Many people do a piece of research for six months, make a report, and then forget about it. But this kind of problem cannot be studied in a short time. And so it is being studied for the longer period of time. The flaws in the methods are being evaluated and probably all of them can be corrected. If your group, Dr. Downing, will continue long enough to refine the methods of evaluation and other details, I think we might expect some very accurate figures from such research.

Dr. Gallagher's report attempted to ask questions about research. As you recall, he said the interpretation of research is dependent primarily on the methodology used. It is important, I think, for anyone doing research to be able to ask questions about the research before he starts. And these questions have to be right questions, because if the right questions are not asked

before we start, then we do the research and find out that the results are invalid because we haven't asked the right questions. So Dr. Gallagher has tried to ask the right questions relating to a particular design.

I think the highlight of this particular panel and discussion is what Dr. Duhl said originally—*more people are becoming interested in this field*.

The encouraging thing to me is that twenty years ago we had few people working professionally in research in the area of mental retardation. Few students went into the field, whether they were doctors, psychiatrists, psychologists, or educators. Today, we find a large group of young men and women being trained and becoming interested in mental retardation and in research in the field. The isolation that a few of us felt ten or twenty years ago is going to disappear in a very short time. So, as I go to this meeting and many other meetings, I am happy to see that we are getting many young people in the field. I hope that within five to ten years, the picture will change a great deal as far as our knowledge is concerned. Thank you.

PANEL CHAIRMAN ADAMSON: We will now open the discussion period in the few minutes we have remaining. Dr. Gallagher, will you lead off?

DR. GALLAGHER: I'd like to comment first on some of Dr. Nurnberger's points, primarily to emphasize our agreement—that individual change in individual children, is the most important point to come out of this, rather than whether one group of children gains over another group. That, of course, is interesting information, too. We hope that through our intimate contacts with these children over a period of three years, we will be able to write the kind of case report which will give some information as to the effect of the training program upon individual children.

No such case report as that would be complete unless we have, as Dr. Nurnberger suggests, the previous experience of these children. We know it isn't just the brain injury only that determines the behavior of these children; it is the experiences they have had. For the most part, we do not know what experiences these children had before they came into the institution, or even while they have been in the institution, since no attempt was made before we came to evaluate them systematically. I have a feeling that the kind of experiment or research which will determine this may very well go back to the animal laboratory in which we can specifically control and induce various kinds of injury to primates' organisms of other developmental levels. That may give us some more specific clues, since some research has already been done in that direction.

PANEL CHAIRMAN ADAMSON: Thank you, Dr. Gallagher. Since we are running beyond our time, we have many provocative questions which have not yet been answered. With your permission, we would like to take these questions and give them to the men here who are particularly qualified to discuss them, and include their answers in the proceedings which will be published later. I will now turn the meeting back to our presiding officer, Dr. Hepburn.

CHAIRMAN HEPBURN: This closes our afternoon meeting. Mr. Johnstone, I believe, has a few brief remarks for you. Mr. Johnstone . . .

PRESIDENT JOHNSTONE: Dr. Hepburn, in closing this most excellent session, I would like to reiterate my thanks not only to the nine young men of the supreme court on research organization but to all of the speakers and other participants in this 1956 Conference. To the Division of Mental Health and its representatives, to the Indiana University School of Medicine, with particular reference to Dr. VanNuys and his associates for their arrangements and their hospitality, and of course to our audience, goes our most sincere appreciation. Now, I call your attention to the fact that these proceedings will be mailed to approximately 25,000 people in the United States and all over the world, as soon as transcribing and printing are completed—a truly large audience. I would also like to introduce to today's audience two of my coworkers who are here from The Woods Schools—Mrs. Dorothy Odiorne, who is executive vice-president and registrar and someone who meets many parents throughout the country. Many of you have already met Mr. Jack M. MacDonald. He is assistant to the president and director of public relations at The Woods Schools. Mr. MacDonald worked long and assiduously with the people here in Indianapolis to set up this conference, which I feel has been most successful. From your applause I see that you agree. We now stand adjourned.

QUESTIONS AND ANSWERS

QUESTIONS AND ANSWERS SECTION

QUESTION: What efforts, if any, are being taken to recruit students in teacher training' in the field of the retarded?

DR. KIRK: Most of the teacher training centers in this country have some sort of a program to acquaint students in colleges, and sometimes seniors in high schools with the opportunities found in teaching mentally retarded children. Recently many parents groups have offered scholarships to such students. I believe that the scholarship program of the civic groups and the parents' organizations does two things: first, it helps publicize the field of teaching with the mentally retarded in the announcements of the scholarships, and it also helps needy students go into a very worthwhile field. I am hoping that these scholarships will increase throughout the country and also tend to increase the number of teachers who are badly needed.

QUESTION: What are the dangers of placing in a class for the retarded, a child who is functioning at a retarded level, but who is emotionally disturbed and thus his level of functioning is reduced—although his capacity may be average?

DR. KIRK: In general, placing a normal emotionally disturbed child in a class for retarded children is not the best thing to do. Emotionally disturbed children need individual and group therapy of a different sort than a mentally retarded child. The mentally retarded child is generally one who has a basic learning disability and requires special instruction adapted to this low and slow rate of learning. We must remember too that there are mentally retarded children who are emotionally disturbed. When we place a mentally retarded child in a regular classroom and expect him to be average in emotional reactions, we are getting ourselves and the child into trouble. It is sometimes difficult to tell whether a child who is functioning as a mentally retarded child is functioning as a retarded child because of emotional disturbance or will function as a retarded child with or without an emotional disturbance. This determination is essential for differential diagnosis. Many people, however, mistake a mentally retarded child who is emotionally disturbed also, for a normal child who is functioning at the retarded level. Many emotionally disturbed children function at a superior level as far as school learning is concerned. It does not always follow that emotional disturbances produce reactions similar to mental retardation. This is sometimes wishful thinking on the part of people rather than actual fact. This differentiation should be made by specialists or by trial and error before an educational program is organized.

QUESTION: How would an experienced teacher of retarded children go about becoming a part of a research project temporarily—not as an 'escape mechanism' but to gain more experience to take back to the classroom?

DR. KIRK: We have many experienced teachers who have gone back to graduate school for an advanced degree and who have participated as assistants in research projects. Many of those working on master's and particularly doctor's degrees are experienced teachers who are also becoming trained in research. The question implies that it is necessary for a teacher to participate in a research project. Many very excellent teachers cannot do research but are excellent teachers because they are able to handle children, are sensitive to them, and know how to teach. By reading the literature on research such a teacher can make application to her classroom situation. Many of the research articles, if read by teachers, might give them leads to better programs of education. For most teachers I believe, a habit of reading the research literature in the field, rather than actual participation in a research project, could be of great help to them in transferring research findings into practice.

QUESTION: With the tremendous growth of physical facilities for research in the last few years, there doesn't seem to be any integrated program or controls. My question has two parts: (1) What would you say are the primary requisites for a good research program?; (2) What suggestions do you have for a body to control or direct research by individual agencies?

DR. DUHL: I will answer this question in two parts. The primary requisites for a good research program I would say are the following: trained personnel; and by trained I mean people who are dedicated to research as a way of life and who also understand and can develop excellent research methodology. Mr. Gallagher's paper deals with this. The second requisite would be time and freedom to work with no pressure put upon the researcher for immediate or immediately practical results. Oft times "a shakedown" period is needed before a research operation can produce results. Space to do research is also important. Of course it is important to have money allocated on a continuous basis. Along with all of these considerations I feel that ongoing research training should also be part of the program.

The answer to your second question is that there should be no control over what research should be done by individuals or agencies. To do so would presume, preguessing the outcome of research. However, I do feel it is important that communication be maintained between all research workers so that leads for significant work can be followed. Dr. Mahoney's suggestion to me of surveys and reports of negative results is just as important as all the reviews of positive research findings. Toward this, both the projects of

the AAMD and the NARC, with Dr. Masland and Dr. Sarason, should prove quite helpful.

QUESTION: Has there been an attempt to explain the *cause* of any deviation from the normal pattern of human intelligence?

DR. DUHL: To ask the question as to the cause of normal intelligence deviation is to ask both an extremely difficult question and one which has a tremendous number of variables. All we can say is that although many things cause normal intelligence variation, the end product of these causes is an intelligence change. We know, for instance, that chemical, physical, and other factors affect the nervous pathways causing diminution of intelligence. We also know, for example, of emotional problems interfering with ability. We know, too, that basic learning and individual original intake were inadequate and thus interfere with intelligence. Incidentally, in this regard, if the information intake of a person is completely different from our own and then we measure intelligence by our own tests, the person will appear to have diminished intelligence. This is a factor we always have to take into account when we evaluate a person's intelligence. Another final point I would like to make is that intelligence is usually abstract learning ability while other things that a person knows may be evidence of intelligence although neither our tests nor our values interpret them as such. For example, the ability to utilize one's hands in making things after scanning plans is a highly developed intelligent skill of a different order than the intelligence manifested by book learning.

QUESTION: In Dr. Duhl's presentation there was some mention of investigating the relation of etiological classifications with special educational methodology, etc. Is there not already enough evidence to indicate that observable learning characteristics which may cut across various clinical classifications are of more importance in educational planning rather than etiological or clinical classifications?

DR. DUHL: I feel that this question deserves both a yes and a no answer. I would say that there are basic learning characteristics which cut across all clinical classifications of retardation. At the same time, however, certain types of organic damage cause specific results which require specific techniques in order to make up for the deficit. Again, the research project that Dr. Gallagher reports on may give some of the answers to this question. There is also another aspect to the question which I think is quite interesting. The implications of the last part of your question is that there is a difference between educational and etiological classifications and I think you are correct. Classification!, of course, are developed for specific reasons and

therefore educational classifications are of an entirely different order from the medical classifications. I can't help but wonder whether when we have much more information about both etiology and of education there will be less need for overlapping classification systems. Incidentally, too, there is a tremendous need for an adequate classification system and nomenclature which can be utilized by all workers in the field. At least, if not using the same terms, translatable ones that can be related to both medicine and education should be used.

QUESTION: When discussing prevalence studies, Dr. Duhl implied that there were other studies of prevalence which he felt were important. I wonder if he would mention something about these.

DR. DUHL: Dr. Downing in his paper reported briefly on two previous studies: the English Woods Report and the Eastern Health District study in Baltimore. These are both projects done some time ago. However, during the past 3 to 4 years Dr. Joseph Jastak in Delaware has been doing a most comprehensive sampling of the whole population of the State, in order to understand both the prevalence of mental retardation, and the true nature of the retardation. When completed this project should, when added to what we already have, give us many of the answers to almost all the most important questions about prevalence.

I understand a preliminary paper will be given by Dr. Jastak at the American Public Health Association meeting this fall.

QUESTION: What can the school psychologist in the elementary and secondary schools contribute to the research organization, considering his lack of opportunity for control?

DR. GALLAGHER: I have heard this kind of question before. It has a note of despair to it, because the school psychologist says, in effect, what can I possibly do to control significant variables which even in our own situation were very difficult.

I would say that there are two very positive things that can be said in answer to this question. First, I think one of the essential points of research is the ideas, the questions which come, not from the person working in the laboratory, but from the worker who is in the field every day . . . and that these questions can be posed successfully only by these people in practical situations and delivered to the research people. The result would be a much more meaningful total research program than has gone on in the past.

There is another point which is probably even more important. I feel that in the school situation you do have opportunity for some limited amount of controls. For example, I would suggest to anyone who is in a position to do research in schools that the 'own-control' method is one which could be used much more than it is now. Suppose you wanted to see if a child is going to respond favorably to some kind of recreational program or what have you. To start the experiment, you can measure him over a specific period of time, introducing no program at all. Then measure him again. Then introduce your program, and then measure after your program is over. In this way, you can measure the gains that this individual has made *without* a program and the gains he has made *with* the program. The individual becomes his own control in this way, and you are rid of a number of very nasty kinds of problems in the whole area of control of subjects. This is a real possibility in schools, and I think it has been too long overlooked.

QUESTION: What is the minimum age at which a valid evaluation of the future capabilities of a retarded child with cerebral palsy may be made?

DR. GALLAGHER: That is a difficult question to answer. In the first place, it depends specifically upon the individual child. This is particularly true in the area of cerebral palsy. The thing to be kept in mind is: to what use we can put our measurements. Suppose we have a six-year-old child. There are only two reasons for testing this child. One is to give a series of diagnostic tests designed to give information so that we can set up a training program and predict his response to the training program. The second reason for testing is to predict future performance on the part of the individual. I would like to emphasize the value of using the first method and to play down the value of the second. A lot of research, most recently the longitudinal studies by Nancy Bailey of the University of California, have shown that prediction of ability over a long period of time is not very reliable. It is most reliable when you have children at low intellectual levels, but it is very shaky once you get out of that area. I would say we are kidding ourselves if we predict what a child is going to be doing at the age of fifteen, when he is now six or seven years old. Information from the tests is useful in planning a training program for him now. I don't think we can go any further than that.

QUESTION: In the experiment, is it to be assumed that the control group receives no instruction in any way comparable to that given the experimental group?

DR. GALLAGHER: I didn't mean to give the impression that the control group in our study is not getting any training. They are getting the train-

ing that they were sent to the institution to get. The thing I meant to emphasize is that we are introducing something new to the experimental group; we are giving training to the experimental group that the control group does not get. That's all. It doesn't mean that the children are being deprived of any other service.

QUESTION: How are the contributions of medical treatment, social benefits from favorable attendants and house parents, and from other personal contacts to be reconciled with the final interpretation of data?

DR. GALLAGHER: I can only say that we are depending on the laws of chance to balance out these various conditions. It is true that one house parent might favor the children. Another one might not. But it is also true that it could happen to one group or another, and we have hoped that these factors would balance in the long run.

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