Mental Retardation

Activities of the U.S. Department of Health, Education, and Welfare

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • July 1963

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U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
ANTHONY J. CELEBREZZE, *Secretary*
WILBUR J. COHEN, *Assistant Secretary (for Legislation)*
Secretary's Committee on Mental Retardation
Washington, D.C., 20201 - July 1963

The Secretary's Committee on Mental Retardation

This publication was prepared by the **Secretary's Committee** on Mental Retardation of the Department of Health, Education, and Welfare. The Committee consists of representatives of the Office of the Secretary and of the agencies of the Department, as follows:

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Assistant to the Assistant Secretary

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Preface

The past year has been a promising one for all of us who are seeking means to strengthen the attack on mental retardation. The coming year holds much promise in accelerating our attack on the problem.

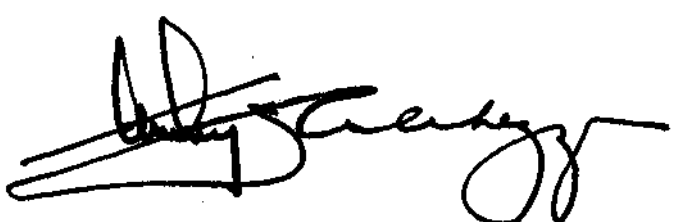
In October 1962 the President's Panel on Mental Retardation issued its final report. It contained some 90 recommendations for action by government agencies and private organizations. Immediate action was taken to implement major recommendations of the Panel's Report. Provision for strengthening numerous programs administered by the Department of Health, Education, and Welfare was provided in the Administration's 1964 budget, and the President sent to Congress a special message calling for new legislation to promote research, to provide special facilities, and to improve services.

In this document existing programs are described that are administered by the Department of Health, Education, and Welfare. These activities will serve as the base from which the future extensions and improvements will be made in existing programs.

Overall responsibility for mental retardation activities in the Department has been assigned to Assistant Secretary Wilbur J. Cohen. To assist him in assuring the development of needed programs and achieving coordination of all of the Department's activities relating to mental retardation, he has had the professional and technical assistance of the Secretary's Committee on Mental Retardation. This Committee, of which Mr. Luther W. Stringham is the chairman, consists of representatives of all of the interested agencies of the Department.

The coordination efforts of the Secretary's Committee and the activities described in this publication make abundantly clear that many agencies of government must collaborate in seeking causes, developing preventive measures, and in ameliorating the disabilities connected with mental retardation. The necessary involvement of many agencies of government likewise underscores the need for an active and cooperative role by private agencies and for teamwork by many professions and disciplines in developing programs of prevention and improved services to mentally retarded persons and their families.

This report was made possible by the cooperation of many individuals in a number of different agencies. We hope it will be useful to all who seek more information about the problem of mental retardation and the activities of the Department in this field.



Anthony J. Celebrezze
Secretary of Health, Education,
and Welfare

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Mental Retardation Defined

Mental retardation is a condition, characterized by the faulty development of intelligence, which impairs an individual's ability to learn and to adapt to the demands of society.

The failure of intelligence to develop normally may be due to diseases or conditions—occurring before or at the time of birth, or in infancy or childhood--that damage the brain. It may also be due to factors determined by heredity that affect the development of the brain and by home or social conditions which fail to provide the child with adequate stimulation or opportunities for learning.

Degrees of Retardation

The degree of retardation varies greatly among individuals. It can be so severe that the afflicted person must have protective care throughout his life. In others the retardation is so mild that many tasks can be learned and a measure of independence in everyday life can be achieved. In a substantial number of cases the affected persons can adjust in a limited way to the demands of society, and in many instances can, with help, become productive members of the labor force.

There is no fully satisfactory way of characterizing the degrees of retardation. According to the classification proposed by the American Association on Mental Deficiency, they range from profound to mild. The developmental characteristics, potential for education and training, and social and vocational adequacy, according to this classification, are summarized below by age groups.

Developmental Characteristics of the Mentally Retarded

Degrees of Mental Retardation	Pre-School Age 0 - 5 Maturation and Development	School Age 6 - 20 Training and Education	Adult 21 and over Social and Vocational Adequacy
Profound	Gross retardation; minimal capacity for functioning in sensorimotor areas; needs nursing care.	Some motor development present; may respond to minimal or limited training in self-help.	Some motor and speech development; may achieve very limited self-care; needs nursing care.
Severe	Poor motor development; speech is minimal; generally unable to profit from training in self-help; little or no communication skills.	Can talk or learn to communicate; can be trained in elemental health habits; profits from systematic habit training.	May contribute partially to self-maintenance under complete supervision; can develop self-protection skills to a minimal useful level in controlled environment.
Moderate	Can talk or learn to communicate; poor social awareness; fair motor development; profits from training in self-help; can be managed with moderate supervision.	Can profit from training in social and occupational skills; unlikely to progress beyond second grade level in academic subjects; may learn to travel alone in familiar places.	May achieve self-maintenance in unskilled or semi-skilled work under sheltered conditions; needs supervision and guidance when under mild social or economic stress.
Mild	Can develop social and communication skills; minimal retardation in sensorimotor areas; often not distinguished from normal until later age.	Can learn academic skills up to approximately sixth grade level by late teens. Can be guided toward social conformity.	Can usually achieve social and vocational skills adequate to minimum self-support but may need guidance and assistance when under unusual social or economic stress.

Another classification, used in relation to educational programs, makes use of the following grouping:

Level	Intelligence Quotient
Trainable (middle or moderate group)	About 25-50
Educable (upper or mild group)	About 50-75

Other classifications group the retarded in somewhat different ways and make use of other terminology. Nevertheless, all of them recognize gradations of mental retardation, although the exact boundary lines vary. Regardless of the particular classification used, however, it should be understood that seldom, if ever, is I.Q. the only determining factor in mental retardation. Other factors that affect intellectual competency are social adaptability and emotional control.

The Causes of Mental Retardation

Based on present knowledge the causal factors in mental retardation may be divided into two broad categories: (1) mental retardation caused by incompletely understood psychological, environmental, or genetic factors without any evident damage of the brain; and (2) mental retardation caused by a number of specifically identified conditions or diseases. The causal and contributing factors included in each of these categories are as follows:

1. Mental retardation caused by incompletely understood psychological, environmental, or genetic factors without any evident damage of the brain.

This group contains 75 to 85 percent of those diagnosed as retarded. It consists of individuals who show no demonstrable gross abnormality of the brain and who, by and large, are persons with relatively mild degrees of retardation. In general, the prevalence of this type of retardation is greater within the less favored socioeconomic groups within our culture.

A variety of factors may be operating within this large category. It is believed that some members of this group are products of very complex mechanisms of heredity, reflecting the fact that human beings show genetic variability in any characteristic, including measured intelligence. Environmental factors

such as the psychological circumstances of life, social interaction patterns, and the richness of the environment with respect to intellectual stimulation play an important definitive or contributory role within this group. Finally, a variety of unfavorable health factors--including maternal health and prenatal care, nutrition, the conditions of birth, and other illnesses or injuries which may produce minimal and undemonstrable brain damage--probably contribute to a lower level of performance in many cases.

The total effect, thus, is a complex one, involving the action or the interaction of genetic factors, psychological experiences and environmental influences. At the present time, it is impossible to assign clear weights to each of these general causative factors. It is known that all of them, however, operate more strongly in the underprivileged groups than among those more favorably situated in society. The prospects for prevention and amelioration should not be discouraging, however, since many of the environmental and psychological variables are subject to control, opening up the possibility of preventing some of the retardation, especially of milder degree, based upon this class of causation. Some of these conditions are preventable if treatment can be instituted early enough in the child's life. Most of the remainder can be ameliorated through a combination of resources, medicine, social work, education, and rehabilitation.

It should be very clearly stated that these same factors also affect retarded individuals whose difficulty stems from the more specific etiologies enumerated in category 2 below.

2. Mental retardation caused by specifically identified conditions or diseases in which there is demonstrable brain damage.

In approximately 15 to 25 percent of diagnosed cases of mental retardation, a specific disease entity can be held responsible. The impact of such diseases can be most readily demonstrated in those instances where there has been gross brain damage and where the degree of retardation is severe. As mentioned above, it is uncertain to what extent these "organic" factors may operate to produce minor impairment among the less severely retarded groups. Such "organic" factors fall within seven general classes.

a. Diseases due to infections in the mother during pregnancy or in the infant after birth. German measles, occurring during the first three months of pregnancy, is known to result in mental retardation as well as other abnormalities. Other infections

occurring during pregnancy have also been implicated. A number of the infectious diseases of infancy and childhood may cause brain injury resulting in retardation.

b. Brain damage resulting from toxic agents which are ingested by the mother during pregnancy or by the child after birth. Jaundice of the newborn due to Rh blood factor incompatibility and carbon monoxide or lead poisoning are examples.

c. Diseases due to trauma or physical agent. Brain injury occurring as a result of difficult delivery, and asphyxiation due to delay in the onset of breathing at the time of birth are common causes. They occur with particular frequency in premature babies. Brain injury in childhood, especially from automobile accidents, is an added factor.

d. Diseases due to disorders of metabolism, growth, or nutrition. A number of disorders of metabolism, some of which are determined by heredity, produce mental retardation. Some of the most important of these disorders are phenylketonuria and galactosemia in which there are abnormalities of amino acid chemistry in the body.

e. Abnormal growths within the brain. A number of rare conditions, some determined by heredity, are characterized by tumor-like and other abnormal growths within the brain and produce mental retardation.

f. Diseases due to unknown prenatal factors. Recent discoveries prove that mongolism results from abnormal grouping of chromosomes probably at the time of formation of the ovum in the mother. Other congenital malformations have a similar basis. For some, however, an undetermined prenatal mechanism must be responsible.

g. Diseases due to uncertain causes but with evident damage of the brain. A sizable group of mentally retarded children have evident damage to the brain which is presumed to be linked to the mental retardation. The causes of the pathology of the brain in this sizable group remains unknown.

Data on patients in institutions show a higher prevalence of pathological conditions among the more severely retarded. Retarded children have other defects more often than the average child. They are often smaller than average, and have poorer muscular coordination. They have a greater than ordinary percentage of defects, such as hearing and vision, and have probably greater difficulty in perceiving what the sense organs bring to their minds. Thus many of them are multihandicapped in some degree.

Scope of the Problem

As stated above, mental retardation is defined as impairment of ability to learn and to adapt to the demands of society. These demands are not the same in every culture. In fact, even within our own community they vary with the age of the individual. We expect little, in terms of intellectual pursuits, from the preschool child. During the school age, the individual is evaluated very critically in terms of social and academic accomplishment. In later life, the intellectual basis of social inadequacy again may be less evident. Numerous surveys directed toward determining the frequency and magnitude of the problem of mental retardation have shown that the number of individuals reported as retarded is highest during the school age. Less than one-fifth as many children in the age group 0-4 were reported by these surveys as mentally retarded as were reported in the age group 10-14. Similarly, only one-fourth as many persons in the age group 20 and over were identified as mentally retarded as' compared with the number identified in the age group 10-14.

This varying prevalence by age is to some extent determined by differential survival rates and other demographic factors. However, the very high prevalence at ages 10 to 14 is due primarily to the increased recognition of intellectual handicap of children within the school systems. The very low number of infants from 0 to 1 year old identified as retarded is in part at least due to the fact that their intellectual deficit is not yet apparent. Only gross impairment is evident in early childhood. Of striking significance is the fact that half of the individuals considered retarded during adolescence are no longer so considered in adult-hood.

In view of these considerations, only the most crude estimates of the overall magnitude of the problem can be established. One such estimate may be derived throughithe use of intelligence quotients, and obtained from the samples upon which our intelligence tests have been standardized. The numbers of mentally retarded persons by this criterion can be calculated roughly on the basis of this experience with intelligence testing. On most tests standardized nationally, experience has shown that virtually all persons with I.Q.'s below about 70 have significant difficulties in adapting adequately to their environment. About 3 percent of the population score below this level.

Based on this figure of 3 percent, it is estimated that, of the 4.2 million children born each year, 126,000 are, or will be, classed as mentally retarded.

Of the 126,000, some 4,200 (0.1 percent of all births) will be retarded so profoundly or severely that they will be unable to care even for their own creature needs. About 12,600 (0.3 percent of all births) will suffer from "moderate" retardation--they will remain below the 7-year intellectual level. The remaining 110,000 (2.6 percent of births) are those with mild retardation and represent those who can, with special training and assistance, acquire limited job skills and achieve almost complete independence in community living.

Applying these same percentages to the total population it is estimated that there are approximately 5.4 million mentally retarded persons in the population. Of this number:

60,000 to 90,000 are persons, mostly children and adolescents, so profoundly or severely retarded that they cannot survive unless constantly cared for and sheltered.

300,000 to 350,000 are moderately retarded children, adolescents, and adults who can assist in their own care and can even undertake semi-productive endeavors in a protected environment. They can understand the meaning of danger. However, they have limited capacity to learn, and their shortcomings become evident when they are called upon to understand the meaning of symbols as used in the written language. These people can learn many tasks when patiently and properly taught.

Some 5,000,000 are mildly retarded children, adolescents, and adults who are able to perform more adequately, adjust in a limited way to the demands of society, and play a more positive role as workers.

Economic Costs of Mental Retardation

There are no reliable estimates of the total cost to the Nation, both direct and indirect, of mental retardation. The direct costs to families and to communities include those for institutional and home care and for special services. Indirect costs include the losses that result from the absence of earning capacity and inability to contribute to the production of goods and services.

Only 4 percent of the mentally retarded are confined to institutions. Yet, their care costs relatives and communities some $300 million annually. Additional amounts are required for the construction of facilities for custodial and educational purposes. The cost of institutional care, facilities construction, and special care in the family home totals more than $1 billion per year.

The Development of National Concern

Mental retardation thus is a serious problem affecting many aspects of our society. The host of problems presented by these people--to themselves, to their families, and to their communities--include biological, psychological, educational, vocational, and social areas of concern. Mental retardation must be approached through the whole life cycle, from consideration of genetics and conception through pregnancy, delivery, childhood, adolescence, adulthood, and old age.

Since 1950, interest in the problem of mental retardation has grown very rapidly. During the past decade increased activities have been stimulated by a few foundations, by the demands of parents, by interested lay and professional groups, and by members of legislative bodies who have been convinced of the urgent need for programs in this field.

Today, the effort to meet the problem of mental retardation takes eight basic forms:

1. Diagnostic and clinical services. There are over 100 clinics specializing in services to the retarded. Well over half were established within the past five years. These services need still greater expansion. The 25,000 children aided in 1962 represent only a small fraction of those who need the service.

2. Care in residential institutions. Today there are over 200,000 mentally retarded patients in such institutions, approximately 15 percent more than there were five years ago. But the average waiting list continues to grow, and the quality of the service often suffers from limited budgets and salary levels. Increases in both facilities and manpower are necessary.

3. Special education. The number of mentally retarded enrolled in special educational classes has been doubled over the past decade. In spite of this record, we are not yet meeting our existing requirements, and more such facilities must be provided. Less than 25 percent of our retarded children have access to special education. Moreover, the classes need teachers specially trained to meet the specialized needs of the retarded. To meet minimum standards, at least 75,000 such teachers are required. Today there are less than 20,000, and many of these have not fully met professional standards.

4. Parent counselling. Counselling of parents is now being provided by private physicians, clinic staffs, social workers, nurses, psychologists, and school personnel. Although this service is still in an experimental stage of development, it offers bright prospects for helping parents to meet their social and emotional problems.

5. Social services. Social services provided mentally retarded children and adults include case work, group work, and day care. These services are an integral part of clinical, rehabilitation, and other mental retardation programs. Social workers are also active in community organizations and in working with parents groups.

6. Vocational rehabilitation. In the past five years the number of mentally retarded rehabilitated through State vocational agencies almost tripled--going from 1,578 in 1958 to 4,458 in 1962. In terms of the number who could benefit from rehabilitation services, this number is very small. However, new knowledge and new techniques are needed, for over 25 percent of those coming out of the special classes still cannot be placed.

7. Preparation of professional personnel. The Federal Government is now promoting the training of leadership personnel in education, rehabilitation workers, research personnel, and medical and welfare specialists. In addition, programs are being provided that will increase the competence of the health professions in providing services for retarded persons. Nevertheless, shortages of qualified personnel remain one of the major bottlenecks in providing services to retarded persons and their families.

8. Research. Support for research in the causes and amelioration of mental retardation has been greatly increased, especially during the last five years. Progress has been made in identifying specific conditions and diseases and in establishing basic problems of behavior and learning, but major research breakthroughs must be achieved before there will be adequate understanding of the pathological, genetic, psychological, environmental, and other aspects of mental retardation.

Mental Retardation and the Future

The acceleration of effort--private and public—already has produced some encouraging results. Progress has been made in identifying specific disorders and their treatment, in training personnel, in providing additional facilities, and in improving services generally. Special education classes have multiplied. More rehabilitations have been completed. Parents get better counselling.

Even though such progress is gratifying, mental retardation will continue to be a problem of national concern. Unless there are major advances in methods of prevention, there will be as many as one million more mentally retarded persons by 1970.

Improved and more extensive prenatal, obstetrical and pediatric care have brought about marked increases in the infant survival rate in the Nation over the past 20 years. Such efforts, along with increasing the chances of survival of all infants, have also increased the survival rates of infants who are premature or who have congenital handicaps or malformations. Since mental retardation is one of the major conditions associated with such handicaps in infants, improved care has to an extent also increased the number of the retarded for whom special services will be needed.

Disease control, new drugs, and higher standards of living have steadily increased the life span of most Americans. While the mentally retarded as a group fall below the average life expectancy, the number of years the average retarded individual lives has been increasing proportionately with the overall average. This increase in life span adds materially to the number of mentally retarded persons, particularly in the upper age levels. With the increased availability of health services, the life span of mentally retarded persons may continue to increase and move closer to the average life expectancy of the general population.

The increased survival rates of retarded infants will probably bring with it an increase in the number of retarded persons who have associated physical handicaps. Current reports from clinical programs dealing with retarded children under 6 years of age indicate that even now in this group, 75 percent have associated physical disabilities. Likewise, because the older individuals are now living longer, we can expect many of them to present the physical problems of the aged in the general population.

Because of changing social and economic conditions, some of the problems of mentally retarded persons will become more acute in the future:

1. Families are growing larger and in fewer instances will a retarded child be an only child.

2. More mothers of young children are in the labor force. Many times the factors that induce mothers to work are even more forceful for the mother who has a retarded child. Substitute care for the retarded child, however, is more difficult to obtain. Frequently, too, the retarded child is less able to understand the need for a parent substitute, which makes planning more difficult to carry out.

3. More children are going to school longer. The general level of education is rising in the Nation. As this trend continues, the mentally retarded whose disability shows itself in this area will be more marked. As educational standards and achievements continue to rise, a greater number of individuals who cannot keep up or achieve these levels will be discovered and will demand attention.

4. Machines replace unskilled labor. In the past, the majority of the mentally retarded children completing special classes for the educable in urban areas were able to find jobs on their own. There is some question whether this will continue to be so in the next 10 years without additional special help. Increased industrial specialization, automation and the intensified tempo of industrial production, pose new problems. Elevated educational standards in rural areas also are adding to the problem. Farming, which years ago provided a field of employment for many of the retarded, has become so highly specialized that persons who would have been employed in the past have a difficult time finding employment at all now.

In the next 10 years, as new programs demonstrate potentials and abilities in various groups of the retarded, extended or additional services will be needed. For example, the increased number of trainable children being offered school programs for the first time will create the problem of what to plan for them after this school experience. Previously most of these children led a sort of vegetative existence at home or in an institution. They are now being trained, stimulated and allowed to develop the limited potentialities that they have. With little likelihood that this group can be absorbed fully into industrial life, new programs will need to be developed.

Thus new demands will arise for information about and services to the mildly retarded who, after a limited amount of schooling, pass into adult society and are no longer identified as retarded. While many live useful, constructive and rewarding lives, others find themselves unemployed, dependent, or otherwise in difficulties. Unfortunately, little is known about the retarded adult and his progress through life. Efforts must be made to identify and study this group as well.

II. ACTIVITIES OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE IN MENTAL RETARDATION

A. SUMMARY

1. **Current Activities**

During FY 1963 funds for mental retardation activities of **the Department** of Health, Education, and Welfare will total an estimated $128,504,000. These activities may be grouped under five main categories: (1) research and studies; (2) professional preparation; (3) services; (4) construction of facilities; and (5) income maintenance. A listing of the programs approved by Congress in prior years and presently underway follows:

Research and Studies

Intramural and extramural support programs of the National Institute of Mental Health and the National Institute of Neurological Diseases and Blindness of the Public Health Service.

The Office of Education programs of studies, surveys, and cooperative research.

Special project grants under the maternal and child health program of the Children's Bureau, Welfare Administration.

Research and demonstration projects of the Vocational Rehabilitation Administration.

Professional Preparation

Vocational Rehabilitation Administration grants to educational institutions for training of personnel for all phases of rehabilitation.

Teaching and training programs of the Public Health Service, including the grant programs of the National Institutes of Health and the Bureau of State Services.

Office of Education training grants to colleges and universities and State educational agencies for leadership positions in education of the mentally retarded.

Services

Consultation by the Office of Education to State and local school systems; educational personnel, and voluntary groups.

Collection and dissemination by the Office of Education of comprehensive basic statistics and reports concerning the education of exceptional children, including the mentally retarded.

Consultation and technical services of Children's Bureau staff to State and local communities under the maternal and child health and the child welfare services programs.

Consultation and technical services to State rehabilitation agencies under the Vocational Rehabilitation Administration programs.

Consultation and technical assistance to State and local agencies provided by program representatives of the Regional Offices of the Department of Health, Education, and Welfare.

Activities relating to the application of knowledge to problems of mental retardation through the Neurological and sensory Disease Service program of the Bureau of State Services, Public Health Service.

Construction

Facilities for the mentally retarded under the Hospital and Medical Facilities Construction program of the Bureau of State Services, Public Health Service.

Income Maintenance

Payments to mentally retarded persons under the public assistance program of aid to the permanently and totally disabled of the Welfare Administration.

Payments by the Social Security Administration from the old-age and survivors insurance trust fund in behalf of persons whose disability commenced before age 18 and continued thereafter.

2. Federal Funds for Mental Retardation Programs, 1960-1964

The following table shows the funds obligated by the Department for its mental retardation activities from FY 1960 through FY 1962, and estimated obligations for the fiscal years 1963 and 1964.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Obligations for Programs on Mental Retardation--Selected Years[1/]

(Under Existing Authority)

Agency and Appropriation	Fiscal Year 1960	1961	1962	1963 Estimate	1964 Estimate
Office of Education					
Defense educational activities (new educational media research)	$ 48,224	$ 62,875	$ 81,709	$ 50,000	$ 25,000
Expansion of teaching in education of the mentally retarded	985,221	993,433	997,000	997,000	1,000,000
Cooperative research	651,600	346,121	265,765	467,400	1,056,000
Salaries and expenses (administration of grant program, "Expansion of teaching" etc.)	43,000	50,000	49,500	61,250	129,000
Total, OE	1,728,045	1,452,429	1,393,974	1,575,650	2,210,000
Vocational Rehabilitation Administration					
Grants to States	1,798,108	2,266,287	2,800,000	3,550,000	5,400,000
Research and training	944,256	1,071,176	1,174,000	1,273,000	3,235,000
Salaries and expenses	---	---	---	---	47,000
Total, VRA	2,742,364	3,337,463	3,974,000	4,823,000	8,682,000
Public Health Service					
Mental health activities	2,808,000	3,947,000	5,275,000	5,506,000	15,091,000
Neurology and blindness activities	8,947,000	11,455,000	12,822,000	14,135,000	17,893,000
Child health and human development	---	---	---	---	3,200,000
Chronic diseases and health of the aged	---	---	230,000	731,000	1,000,000
Dental services and resources	2,000	12,000	30,000	143,000	105,000
Grants for const. of Health Res.Fac. Division of hospital and medical facilities	---	161,260	110,000	841,000	2/
	1,841,000	3,650,000	4,704,000	3,522,000	2/

Agency and Appropriation	Fiscal Year				
	1960	1961	1962	1963 Estimate	1964 Estimate
Social Security Administration					
Bureau of Old-Age and Survivors Insurance:					
Estimated benefit payments from trust funds	$(29,300,000)	$(39,300,000)	$(51,600,000)	$(62,200,000)	$(73,500,000)
Trust fund obligations incurred to adjudicate claims of beneficiaries	(1,900,000)	(1,400,000)	(1,700,000)	(1,700,000)	(1,800,000)
Total, SSA	(31,200,000)	(40,700,000)	(53,300,000)	(63,900,000)	(75,300,000
Welfare Administration					
Bureau of Family Services:					
Grants to States for public assistance3/	21,000,000	24,000,000	28,000,000	33,000,000	36,000,000
Salaries and expenses	10,000	15,000	20,000	20,000	25,000
Children's Bureau:					
Grants to States for maternal and child health	1,300,000	1,434,300	1,610,000	1,665,000	2,665,000
Salaries and expenses	97,800	92,000	80,000	106,000	177,000
Total, WA	22,407,800	25,541,300	29,710,000	34,791,000	38,867,000
GRAND TOTAL, general funds	40,476,209	49,556,452	58,248,974	66,067,650	87,048,000
GRAND TOTAL, (trust funds)	(31,200,000)	(40,700,000)	(53,900,000)	(63,900,000)	(75,300,000)

1/ Figures in parentheses are for obligations from the old-age and survivors insurance trust funds and the disability insurance trust fund. All others are obligations from appropriated general funds.

2/ Not possible to estimate.

3/ Exact information is not available on the costs due to mentally retarded people who are receiving public assistance because data secured does not single out this one cause as a factor of disability or dependency. However, it is known that mental retardation is an important cause of disability for those receiving "Aid to the permanently and totally disabled" under the Federal-State public assistance program. The amounts shown here are estimates based on a constant percentage of total payments under this part of the program.

3. Responsibility for Coordination of Departmental Activities

Within the Office of the Secretary of the Department of Health, Education, and Welfare, responsibility for staff coordination and direction of mental retardation activities is assigned to the Assistant Secretary (for Legislation) . The Office of the Assistant Secretary:

1. Serves as the principal adviser to the **Secretary** for improving the programs and activities of the **Department** related to mental retardation.

2. Provides staff coordination and direction to **the** staff offices of the Office of the Secretary **and to operating** agencies relative to the planning, execution, **coordination,** reporting, and evaluation of mental **retardation activities.**

3. Maintains liaison on behalf of the **Department with** the President's Panel on Mental Retardation, **with other interested** Federal agencies, and with professional **and other groups.**

4. Provides leadership to the Secretary's **Committee on** Mental Retardation. This Committee **consists of designated** representatives of the Office of the **Secretary and of a** principal and alternates, as required, from **certain operating** agencies, as follows: Office of the **Secretary, Public** Health Service, Social Security Administration, Office of Education, Vocational Rehabilitation Administration, **Welfare Administration,** Food and Drug Administration. **Mr. Luther W.** Stringham, Assistant to the Assistant Secretary (for legis**lation),** serves as Chairman of the Committee.

The Secretary's Committee on Mental **Retardation** In responsible for the following activities:

a. Serving the Secretary in an **advisory capacity In the** consideration of Department-wide **policies, programs, procedures,** activities, and related matters.

b. Serving in an advisory capacity **for the Department as** a whole with respect to **inter-Departmental programs and** activities in the field of mental retardation.

c. Serves as a liaison between the **President's Panel** on Mental Retardation and related **programs and activities in** the Department, including **discussions on recommendations** formulated by the Panel and the **Panel's final report to** the President.

B. OFFICE OF THE SECRETARY

Office of FieId Administration

The Division of Surplus Property Utilization, within the Office of Field Administration, carries out the responsibilities of the Department under the Federal Property and Administrative Services Act of 1949, which makes available for health and educational purposes surplus Federal real and personal properties. The properties which become available under this program are those that have been determined by the General Services Administration as no longer having any further Federal utilization.

Surplus personal properties are screened to determine those types which may be needed and usable by eligible institutions throughout the country in conducting health and educational programs. Properties determined to have utilization for these purposes are allocated by DHEW for transfer to State Agencies for Surplus Property which have been established in all States. It is the function of these State Agencies to secure the properties, warehouse them, and make them available to eligible donees for health and educational uses. The only cost to the eligible donees are the handling and service charges which are assessed by the State Agencies.

In the case of real properties which have been determined to be surplus to Federal needs, notices of their availability are sent to potential eligible applicants either by the State Agencies or the Regional Representative for Surplus Property, located in each of our 9 Regional Offices. Real properties available for removal from their site for relocation are conveyed by agreement of sale with restrictions as to the use of the facilities which run for a period of 5 years. These type properties are conveyed with a 95% public benefit allowance discount from their fair market value. Land or land and buildings together with other improvements are conveyed by deed which contain restrictions as to use for a period of 20 years. These type properties are conveyed with public benefit discount allowances ranging from 40 to 100% of fair market value. The only other costs to eligible transferees are "out of pocket" Federal costs, i.e., appraisals, surveys, etc.

Schools for the mentally retarded are eligible to acquire surplus real and personal property. In the case of personal property, such a school must be operated primarily to provide

specialized instruction to students of limited mental capacity. It must be tax-supported or non-profit and exempt from taxation under Section 501(c)(3) of the Internal Revenue Code of 1954. It must operate on a full-time basis with a staff of qualified instructors for the equivalent of a minimum school year prescribed for public school instruction of the mentally retarded. It must also demonstrate that the facility meets the health and safety standards of the local governmental body. In the case of real property, the applicant must be a State or political subdivision thereof, or instrumentality, a tax-supported educational or public health institution, or a non-profit educational or public health institution that has been held to be exempt from taxation under Section 501(c)(3) of the Internal Revenue Code of 1954. Its proposed program of use must be for a fundamentally educational or public health purpose; i.e., devoted to academic, vocational or professional instruction, or organized and operated to promote and protect the public health.

Types of personal property available would range anywhere from a nail to an electronic computer. Many items of personal property have never been used before. Most, however, have been used. Real properties would consist of all types of buildings which are removable, land with or without permanent structures, and other improvements such as utility lines, sewer and water systems, etc.

Detailed information as to eligibility of organizations for both surplus real and personal properties, as well as addition information in connection with the surplus property utilization program, may be obtained from pamphlets listed in the bibliography included in this publication.

The following table lists examples of real properties conveyed under the program for use in aiding the mentally retarded Frequently, these facilities are put to a joint use, namely, for the training of the mentally retarded as well as the physically handicapped. Other conveyances have been made for hospital use where, as a part of the total program, portions of the facility are used for the treatment and training of the mentally retarded.

TRANSFERS OF SURPLUS REAL PROPERTY
FOR MENTALLY RETARDED

State and Installation	Institution	Acquisition Cost	Fair Value	Utilization
ARIZONA				
American Villa Resubdiv.	Tuscon Public Schools	$ 38,367	$ 18,500	School for physically and mentally retarded children
CALIFORNIA				
Chollas View H/P	San Diego Co. Assn. for Retarded Children	55,536	55,214	School for retarded children
San Bruno Naval Base	County of San Mateo	142,723	93,000	Sierra Morena School for retarded children
Mitchell Conv. Hosp.	Mary E. Burke Found.	3,897,219	215,286	School for mentally retarded children
CONNECTICUT				
College Heights H/P	City of New London	10,494	8,750	School for retarded children
FLORIDA				
Marianna Army Air Field	State Board of Comm.	6,276,606		Sunland Training School for mentally retarded
KANSAS				
Winter VA Hospital	Bd. of Social Welfare	5,327,356	744,564	Treatment and care of mentally retarded children
LOUISIANA				
Belle Chasse NAD	State Dept. of Hosp.	178,196	322,500	Treatment and care of mentally retarded
MARYLAND				
Lexington Park H/P	St. Mary's Co. Bd. of Ed.	135,467	168,600	School for retarded and handicapped children
MISSISSIPPI				
USN Const. Battalion	Harrison Co. Bd. of Ed.	182,506	63,500	School for mentally retarded children
OHIO				
Youngstown Munic. Airport	Warren City School Dist.	17,500	16,250	School for retarded children
PENNSYLVANIA				
Buchanan Homes H/P	Occupational Services, Inc.	23,002	16,100	Vocational school for mentally retarded and physically handicapped
TENNESSEE				
AEC - Oak Ridge	Anderson County	600	7,600	Rehabilitation center for mentally and physically handicapped, including retarded
TEXAS				
Lufkin AFS	Bd. of Texas State Hosp.	1,623,785	634,899	School for mentally retarded
Cuddihy Field NAAS	Coastal Bend Habil. Assoc.	856,088	44,790	Vocational school for mentally retarded and mentally and physically handicapped.

C. PUBLIC HEALTH SERVICE

Introduction

The Public Health Service, as the principal health agency of the Federal Government, is responsible for a broad spectrum of programs in research, training, service, and facilities construction relating to problems of mental retardation. Special competencies and interests within the Service place most of these activities in units of: (1) the Bureau of State Services -- (a) the Division of Hospital and Medical Facilities, with responsibility for administering aid for construction of such facilities, and (b) the Neurological and Sensory Disease Service Program of the Division of Chronic Diseases, with the objective of improving health services within the community for the mentally retarded; and (2) the National Institutes of Health — (a) the National Institute of Mental Health with its primary focus on the psychological, behavioral, emotional, and social problems related to various mental conditions, (b) the National Institute of Neurological Diseases and Blindness, concerned primarily with research on the underlying neurological defects leading to retardation, and (c) the National Institute of Child Health and Human Development, with its interest in the overall growth and development of the individual. This last unit (NICHD) markedly augments the Public Health Service activities in the field of mental retardation and related aspects of human development and was established by the Surgeon General on January 30, 1963, acting under new legislative authority signed by President Kennedy on October 17, 1962.

Services, Program Development, and Information on Mental Retardation

A necessary accompaniment to progress in this field is a continuing search for more information on many aspects of the mental retardation problem and dissemination of this information ot professional and administrative people and to the public. On the basis of knowledge already gained, State and local programs and services are in being in many localities. An integral part of many of these is the production of more information, which feeds into additional or expanded services in these and other communities. Demonstration and pilot projects, for example, help the retarded and their families in their specific localities, while at the same time pointing the way to improvements. The Public Health Service supports an array of projects with implications for services, program development, and information.

The Public Health Service has for many years assumed responsibility for gathering certain demographic information pertaining to the mentally retarded. Through its wide-flung reporting system attempts have been made to systemize reporting of State Hospitals and Institutions for the Mentally retarded. More recently the Service has succeeded in organizing collection of data on patients seen in psychiatric clinics. In 1961 this system revealed that there were 26,000 patients seen in psychiatric outpatient clinics who were diagnosed as mentally retarded. Active planning continues for further development in this vital descriptive analytic work. An important contribution to the field has been the annual meetings of the Mental Hospital Statisticians which are sponsored by the Public Health Service and devote substantial portions of their discussions to mental retardation. Data are now being collected in each of the public institutions for the retarded in the various States.

In 1955 an important grant was made to the American Association on Mental Deficiency under the project title "Technical Planning in Mental Retardation." Out of this one grant major contributions to the field have been made in the delineation of current needs, the integration and organization of the work already accomplished, the stimulation of creative thinking and planning, and improvement of liaison between various professional, lay, parent and Government groups.

The results of this technical project are evident in many publications which have had wide dissemination among workers in the field. These publications include a ten year index of the American Journal of Mental Deficiency --a mechanism to increase the exchange of information; a manual on terminology and classification in mental retardation to aid in the difficult fields of standards and criteria; a survey study and report of cooperative relationships established between residential facilities for the mentally retarded and colleges and universities; a manual on program development; a study now in process of minimal standards for residential institutions; staff consultant services to various professionals such as school superintendents, State department officials, sheltered workshop directors, and others; and an analysis of existing State laws relevant to the retarded.

A notable consequence of this grant has been the calling of key conferences in selected areas crucial to the development of the field.

Another contribution of lasting value is the record of the "Conference on Research and Training in the Field of Mental Retardation" sponsored by the Service at the Lynchburg Training Colony in 1958 and still being widely used. This conference featured presentations on neurology, and on research and training in psychiatry, social work, nursing, psychology, and education.

The Public Health Service has long used expert consultants in identifying areas in which research is needed, and to consolidate current thinking in research areas such as mental retardation and prematurity. The Service now plans to set up a continuing series of meetings with scientists and experts in the field of mental retardation. International representation at these meetings will make it possible to draw on the knowledge of the best investigators in every country to keep abreast of new developments. Publication o.f the proceedings of these conferences will make this information available to all interested investigators and other individuals.

Currently the Service is stimulating and supporting projects which help States make surveys to assess the extent of their neurological and sensory disease problems, including mental retardation, and determine the availability of service facilities, personnel, and other resources; and which aid in developing plans to meet needs thus identified. During fiscal year 1963, such planning projects were initiated by eight State health departments (California, Louisiana, New York, North Carolina, Ohio, Oregon, Pennsylvania, Washington).

During 1964, the Public Health Service plans to set up a number of specialized information centers, which will provide informational and consultant services to assist research in mental retardation and maternal and child health.

Among informational materials now being developed are films, technical publications, and a comprehensive catalogue of existing films in this and other countries, relevant to the neurological and sensory disease field -- this is to be published in 1963. At the same time the Service is supporting a nation-wide survey of communication activities in mental retardation and other neurological and sensory diseases. This survey will provide new knowledge to form the basis of even more effective informational materials.

A major activity is the fostering of expanded and improved community services to deal with mental retardation and related neurological and sensory diseases. Grant support is available for projects designed to stimulate the development, expansion, or improvement of community activities to identify and meet the problems of these disorders. Such projects may include preventive diagnostic treatment, and rehabilitative aspects and may involve patient services, population screening, demonstrations of techniques to health personnel, the establishment of referral and other management procedures.

In developing improved community services for the retarded and their families, it is essential that communities, State health departments, medical centers, and institutions for the mentally retarded be assisted in welding together their resources in a continuum

of preventive, diagnostic, and care services. Communities have a particular and compelling need for specialized outpatient services which should be developed in cooperation with institutions for the mentally retarded. To meet this need, assistance is made available to institutions to augment their ability to provide both outpatient and inpatient care services and to participate in the development of more comprehensive community services.

Medical centers, in association or cooperation with other interested institutions and agencies, are encouraged to develop projects that provide a comprehensive approach to community neurological and sensory disease needs, including mental retardation. These projects involve training of health personnel, diagnostic and patient management services, and applied research. During fiscal year 1963, four institutions began to plan such projects with support from this Program (University of Miami, Jefferson Medical College, University of Kansas Medical Center, Baylor University College of Medicine).

A community mental retardation service center is being developed as a demonstration project at the University of Southern California which has already established close working relationships with community agencies and State institutions. An information and referral unit will be established, and mental retardation clinics within the outpatient department of the center will be strengthened and expanded as a focus of service and consultation on the diagnosis and treatment of patients referred from physicians, hospitals, and community agencies. Other communities throughout the country will be assisted in adapting service techniques developed at the demonstration center to their individual needs.

The information and Counseling Service for the Retarded in Rhode Island is a prototype of kinds of basic community programs which have a crucial impact on the particular community. This one project has demonstrated the need for practical services close to home where the family may begin to plan to meet the needs of the retarded child. The purpose of the demonstration is to show what an information, referral and counseling service can do to identify problems of mental retardation; to find out why agency services are not available to help families and mentally retarded persons to assess the needs of the community; and to help staff members of health and welfare agencies and other professional groups to become more familiar with the problems of mental retardation and better able to give service.

In the very important area of prevention and control of phenylketonuria (PKU), three demonstrations are in operation or in the planning stage. The first of these, an epidemiological approach to PKU in Virginia, has been in progress for several months.

It includes the following program elements: (1) baseline public education; (2) screening of patients in State hospitals; (3) survey of other PKU activities; (4) family casefinding and follow-up; (5) screening of mentally retarded patients in State clinics and private facilities; (6) screening in special classes for the retarded in the schools; (7) survey and screening of relatives; (8) dietary management of cases; and (9) family counseling.

Another demonstration already approved for support will provide a screening program for all children in special classes for the retarded throughout the State of California (approximately 40,000 children). The third PKU demonstration is planned for the State of New Jersey.

Many of the States have now begun to give further impetus to their own programs by specifying central offices, divisions, or similar administrative mechanisms as the focal point for the coordination of State services for the care and treatment of the mentally retarded. New York, New Jersey, and Connecticut have long been leaders in this type of activity and are now joined by California, Washington, Colorado, Illinois. In Massachusetts a program of Nursing School Centers for the preschool retarded child under the Massachusetts Department of Mental Health continues to expand and in one instance has been allowed to use the facilities of State institutions in the local area. This has implication for other States in that the unique resources of the residential facility may well be considered as a prime training device for the retarded.

State Officials are increasingly taking advantage of the consultation and technical assistance available from the Service. Consultant staff competent in the area of mental retardation is maintained in each of the nine Department of Health, Education, and Welfare Regional Offices throughout the country. Through these Regional Offices and directly from the Washington headquarters, Public Health Service people work with State officials in developing realistic domonstration and other types of projects. They participate in and help conduct conferences of State leaders aimed at better program activities and services for the mentally retarded. Examples of the subjects of such joint efforts are State planning, programs for delinquents who are retarded, the nurse in the field of mental retardation, how the volunteer can render better service, and education and training of the retarded.

Training

An impressive amount of training is incident to-such programs and projects as those described above.

The service also provides professional and technical training, per se, to help in the attack on mental retardation.

Over the years the Public Health Service has recognized its responsibility by supporting the training of thousands of professionals in the fields of psychiatry, psychology, social service, nursing, and others. Many of these people work in the field of retardation; those in research in particular have made significant contributions to the field.

The George Peabody College for Teachers program for the training of psychologists at the doctoral level has been outstanding. Graduates are key persons in the field and are making significant contributions to the better care and treatment of the mentally retarded.

The Service awards grants for the training of physicians and other health personnel to provide services for neurological and sensory disease patients, including the mentally retarded. Institutional grants are made to approved institutions for advanced training courses, refresher courses, or special studies.

Senior Medical Traineeship Awards are made to physicians seeking additional training. Non-physician Traineeship Awards provide professional and technical personnel, other than physicians, an opportunity for training necessary to develop specialized skills.

A training center is being planned to demonstrate and make available a broad program of training for physicians and other health personnel dealing with problems of the mentally retarded. This center will be located in a large medical center which has strong departments of pediatrics, neurology, and psychiatry; accredited training programs in medical and related areas such as psychology, social work, and nursing; and close working relationships with State agencies and institutions. The center will have a broad service program including sufficient cooperative activities with community groups to provide appropriate training experiences. Other training centers throughout the country will be assisted in adapting specific approaches developed at the demonstration center to their individual needs.

The Service plans to increase its support of research training in developmental biology, including both pre- and post-doctoral programs during 1964. This is a basic field for the conducting of research in human development, and as pointed out by the President's Panel on Mental Retardation, it is also a crucial field for research in mental retardation.

The Public Health Service also plans to enlarge post-doctoral research training support in obstetrics, pediatrics, behaviorial development, and teratology (the study of serious malformations or deviations from the normal in man), with emphasis on fundamental research.

Cross-disciplinary training, such as pediatric training, for neurologists, behavorial science training for pediatricians, etc., to deal with such special childhood problems as congenital disorders, prematurity and mental retardation, would be encouraged.

Research

Public Health Service **sponsored** research in mental **retardation** is going forward in **hospital** laboratories, universities, and other public and private research installations from coast to coast. In its own facilities the Service is carrying on still other investigations.

Intelligence as a function of early environment is being studied through a number of experimental situations involving the problem-solving behavior of animals. One aspect of the present investigations has centered on the effects of the immediately preceding environment on behavior in simple and complex situations. Wide behavioral differences have been found and reported in some detail this past year. Another project is designed to assess the effects of multiple stresses on certain adaptive-behavioral deficiencies in animals.

An intensive study to identify families with more than one case of mental deficiency or mental illness yielded sociological and genetic data concerning the incidence of similar or unrelated cases of mental dysfunction in these families. Review of data has identified cases with specific metabolic defects, such as phenylketonuria, galactosemia, and other inheritable disorders that may cause mental impairment.

Another study is investigating the incidence of abnormal electroencephalograms in a group of children and some of their parents where it is know that at least two children in each family are mentally retarded.

Many abnormalities of metabolism associated with various mental disorders, including mental retardation, are being investigated effectively through the study of urine metabolites. Substances excreted in abnormally large amounts by patients with phenylketonuria are being studied to identify abnormal metabolites in the urine, to understand the manner in which these abnormal metabolites are formed, and, thus, gain evidence which might explain the occurrence of mental deficiency in phenylketonuria. In the same vein, laboratory studies are being undertaken to determine the relationship of metabolites derived from phenylalanine and those derived from tryptophane in phenylketonuria. Experimental production of phenylketonuria in rats has permitted investigation of the effect of dietary phenylalanine upon several aspects of tryptophane metabolism. The possible significance of these phenomena in mental deficiency and phenylketonuria has been reported.

A multidisciplinary approach to mental retardation has been the unique feature of an experimental study of basal nuclear

structures with regard to motor disorder, metabolic abnormality, **and** behavioral defect. Considerable clinical evidence relates striatal neuropathology to behavioral, physiologic and emotional deterioration in patients with certain diseases involving mental dysfunction.

Perinatal factors affecting mental development are being examined in great detail through a unique Collaborative (perinatal) Project, a prospective study of 50,000 pregnant women and their offspring at 15 medical centers across the country.

The Collaborative Project, now in operation 5 years, collects and uniformly records information on many factors—environmental, biological, genetic, psychological—affecting expectant mothers which might possibly have a bearing on congenital defects and disorders in their children, including retardation.

As of July 31, 1963, some 37,300 pregnant women were enrolled in this Project. Based on the present enrollment rate, the goal of 50,000 study mothers should be reached in early 1965.

Clues to origins of prematurity, perinatal fetal mortality, and neurosensory defects have begun to emerge from this Project in which teams of physicians and allied scientists, nurses, and specially trained lay persons are participating. For example: A series of studies undertaken to investigate the role of infections in perinatal damage disclosed that symptomless urinary-tract and other infections in the mother could cause premature birth -- an important cause of retardation. Another analysis revealed an association between anoxia (oxygen lack) at birth and the child's abnormal psychological performance at 8 months.

It is well known that viral disorders can attack the fetus in early pregnancy, producing injury and interfering with normal development. Infectious diseases such as syphilis, rubella (German measles), and toxoplasmosis are recognized for their harmful effect on the unborn child's developing nervous system. The possible connection between other viruses and fetal damage needs to be established.

In an important step toward identifying viruses which may injure the fetus, the serum center of the Collaborative Project is studying the relationship between some one hundred virus infections in the perinatal period and various forms of abnormal pregnancy outcomes by testing blood-serum samples from the 50,000 study mothers. Mothers' blood serum is stored at low temperature for future testing for evidence of exposure to certain viruses during pregnancy. (Infection in the mother will be indicated by a greater number of antibodies in her blood.) Should abnormalities appear in infants, months or even years after their birth, scientists will be able to check the maternal blood for clues to possible infectious factors present at the time of birth.

It is now possible to diagnose various neurological and sensory disorders at a very early age. If proper treatment is started at once, some forms of mental retardation can be prevented. For this reason the Collaborative Project is stressing the importance of the neurological examination of the newborn and of the one-year old. Films depicting these examinations have been shown to more than 300 professional audiences during the past two years.

Careful examinations aimed at detecting disorders of vision and conrnunication are also essential to assuring normal development. A child whose vision does not function normally, or one who suffers from deafness or other hearing impairments, may experience learning difficulties sometimes mistaken as symptoms of retardation.

A speech and hearing examination for the three-year-old was developed this year under the Collaborative Project. Through such examinations, it is possible to detect certain progressive, destructive processes such as chronic infections of the ear and treat them before permanent damage is done. If certain major hearing defects are discovered, it is necessary for the child immediately to begin using a hearing aid. This enables the child to develop language at the normal time and not lose the critical three years before school age.

A major research advance in virology during 1962 was the isolation and cultivation of the virus of German measles or rubella, which can cause irreparable brain damage to a baby if contracted by the mother in early pregnancy; this achievement should accelerate the development of a preventive vaccine. Public Health Service activities have confirmed and extended the methods and findings of scientists at Harvard University and Walter Reed Army Institute of Research.

The importance of a vaccine is emphasized by a recent report that birth defects occur in some 50 percent of live-born babies whose mothers had rubella during the first month of pregnancy, and in about 20 percent of infants whose mothers were infected during the first three months of pregnancy.

Studies outside the Project also underscore the importance of understanding viral infection during pregnancy. Last year one such study produced additional evidence indicating that the common herpes simplex virus can be transmitted from an infected mother to her unborn child, causing brain damage or other abnormalities.

An organ vital to the developing baby, but about which relatively little has been known, is the placenta. It provides for the efficient and essential exchange of materials between mother and fetus. Although disturbances in the functioning of the placenta can have a marked effect on fetal development, our knowledge of the anatomy

and role of the placenta as the medium for maternal-fetal exchange is still incomplete. The Project, therefore, is studying in detail the role of placental physiology and pathology in pregnancy outcome.

Project scientists have developed some new methods for early detection of brain damage and for measuring brain maturation at birth. Studies reported by one of the collaborating institutions this year are demonstrating that routine electroencephalograms of newborn babies can be valuable for this purpose.

Many other studies aimed at saving children from mental retardation are being conducted by Public Health Service scientists and grantees outside the long-term Collaborative Project. These include studies of some major problems of the perinatal period such as prematurity, jaundice, birth injury, and asphyxia (oxygen lack). Our ability to prevent or counteract these pregnancy complications will go far toward lessening the occurrence of mental retardation and other chronic childhood disorders.

A major research center in the Western Hemisphere where primate studies are shedding light on the developing brain and nervous system is the Public Health Service Laboratory of Perinatal Physiology in San Juan, Puerto Rico. Since rhesus monkeys and humans possess similar reproductive processes and nervous systems, scientists are hopeful that this primate testing ground will help clarify some of the obscure areas of the pregnancy process.

Investigators have found that infant rhesus monkeys, subjected to controlled asphyxia and resuscitation at birth, developed various degrees of neuromotor and behavioral handicaps, including symptoms of mental retardation, cerebral palsy, epilepsy, and deafness. From these studies the evidence strongly indicates that anoxia, occurring near the end of the gestational period, can cause permanent damage in the primate brain.

Although newborns have demonstrated capacities for tolerating oxygen deprivation, knowledge of the effect -- on the brain or other tissues -- of anoxia survival is incomplete. Experimental evidence is accumulating in the Puerto Rican laboratory and elsewhere that infants can survive anoxia only at the cost of injury to the developing brain. A study by Public Health Service grantees last year reports experiments demonstrating that newborn rats and mice, deprived of oxygen, showed ability to survive anoxia until adult life; however, examination of their cerebral cortex indicated injury which inhibited proper development of nerve-cell fibers (dendrites). Investigators suggest that these experimental studies with rodents may have implications concerning the sensitivity of the human cortex to anoxic injury.

Possible preventive efforts against damaging effects of asphyxia are also indicated by grantee studies this year. These studies with guinea pigs suggest that lowering the body temperature may be helpful in treating newborn babies suffering respiratory distress because of sedatives taken by the mothers during the birth process. The lower body temperature acts as a protective mechanism by temporarily reducing oxygen requirements until the infant's breathing mechanism can function properly.

Prevention of prematurity, a large factor in brain damage and infant deaths, is also basic to lessening the risk of retardation . Among surviving infants, prematurity can be associated with varying defects ranging from minor neurological impairments to severe intellectual damage. The effects of extreme prematurity are especially deleterious. This year, Service grantees reported a study of obstetrical backgrounds of over 700 children afflicted with cerebral palsy compared to normal children. The study reinforces previous findings that extreme prematurity is an important factor in the cause of this disorder.

Problems of nutrition, infection, and jaundice are being investigated in present studies of the causes of brain damage. Greater knowledge of these areas will aid in reducing infant mortality and injury. Blood-type incompatibility (Rh factor) accounts for a large proportion of cases of neonatal jaundice. New findings concerning treatment of Rh disease in newborn may help prevent brain damage. An investigation of jaundice in premature infants revealed that jaundiced babies with respiratory difficulty tend to have high serum concentrations of bilirubin and are more likely to require exchange blood transfusions to survive than are jaundice infants without respiratory difficulty.

Moreover, the albumin in the umblical cord blood of infants with Rh disease was found to have a lower bilirubin-binding capacity than normal infants. This finding suggests that it might be advantageous to add concentrated human serum albumin to donor blood used in exchange transfusion, thus increasing the albumin level and binding capacity of the baby's serum.

At the same time that research emphasis is given to the perinatal factors causing mental retardation, important postnatal factors which may impair intellectual development must also be studied. Because mental function can be affected by a variety of forces which operate during the postnatal period, the Public Health Service is sponsoring investigations to learn more about the effects of brain-damaging factors in childhood. Three major postnatal factors responsible for retardation to which an increasing research focus is being given are accident and injury, convulsive disorders, and infectious disorders.

Postnatal accidents and injury constitute the most common single cause of hospitalization in our childhood population. (In a survey of a group of injured hospitalized children, injuries of the head and brain accounted for 30 percent). Although, head injury is not usually regarded as a cause of mental retardation, at least 10 percent of institutionalized retarded suffer from this postnatal condition.

Automobile collisions, mishaps during sports and play activities, and accidents in the home account for a large portion of head injuries which can lead to permanent neurological impairment. Many of the serious permanent residuals of such injury appear to develop after the event during a postconcussion reactive phase. Various studies at the Service's Bethesda laboratories and at grantee institutions are attempting to understand the mechanism of brain edema which often causes serious problems. Increased understanding of these basic mechanisms, coupled with prompt and definitive surgical management of accident victims, could greatly reduce the severity of the permanent damage to the brain and nervous system.

Epilepsy and other convulsive disorders during the early development period can result in injury to the brain. An understanding of the mechanisms by which these seizures occur, and the way in which permanent brain damage may take place, is important. Extensive research regarding the anatomical, electrical, or chemical factors responsible for seizures, as well as evaluation studies of a variety of anti-convulsants, may provide answers need to prevent retardation.

A Public Health Service study which attempted to relate mental development to the various characteristics of epileptic seizures showed this year that there is a significantly higher incidence of mental retardation in children with frequent minor epileptic seizures as compared to those with less frequent major attacks. This evaluation is based on a 4-year follow-up clinical and laboratory study of 110 children whose epileptic attacks were first investigated when they were under 2 years of age.

Increasing knowledge of infectious disorders of childhood, and of the numerous viruses which can attack the growing child, is also a field of vital research interest. Measles, for example, the number one childhood disease, can lead to severe impairments, including mental retardation. Release of the two types of measles vaccines approved recently for manufacture underscores the need for mass immunization programs among preschool children, as well as among children of school age. In many instances, serious complications such as measles encephalitis have resulted in permanent injury to very young children. Relief of inflammatory reactions through effective antibiotic therapy, in the case of mumps and spinal meningitis, is also a way of saving some children from mental retardation.

Discovery of additional biochemically caused forms of mental retardation, such as phenylketonuria and galactosemia, may aid in preventing and treating more cases of retardation. In these genetically determined abnormalities, an absent or abnormal enzyme disrupts the normal metabolic sequence, with the biochemical result either in the absence of an essential material or the accumulation of a substance in toxic amounts. Because of the preventive implications offered by greater understanding of inborn errors of metabolism, biochemical studies of the brain play a prominent role in the Service's total research effort. Over 30 projects related to inborn errors of metabolism alone are being supported in this aspect of the mental retardation research.

Studies in the pathology of brain tissue represent another area that may ultimately bring understanding to the problem of mental retardation. Public Health Service scientists and grant-supported investigators are seeking clues, through postmortem examinations, to the exact stage when the maldevelopmental process began and to the location and severity of tissue destruction. Such knowledge, when correlated with clinical observations and patient histories, can help identify previously unrecognized organic causes of mental retardation.

Continuing research and analysis of the effect of neonatal and infantile cortical and subcortical lesions on learned and unlearned behavior is a part of another extensive research project involving the behavioral changes resulting from induced phenylketonuria in primates and the effects of interruption of other enzyme systems or disease entities on neonatal primates and fetuses.

A Mental Retardation Clinical Research Center, the'first of its kind, has been established at the University of Nebraska. The Center brings together contributions from medicine, biochemistry, genetics, psychology, physiology, anthropology, sociology, speech pathology, and special education in studying the genetic, social, psychological, and somatic aspects of mental retardation.

Closely allied with the Center is a project referred to as a Pilot Screening Treatment Unit for Mentally Retarded. This facility was designed as an evaluation and intensive treatment unit for all pre-school children in the State, under six years of age, who were considered retarded. The age limit was subsequently raised to twelve years, and the scope of the evaluation program has been broadened to include children with speech and hearing problems associated with retardation.

Investigations of the effects of psychopharmacological agents in children, particularly in regard to mental retardation, are seeking to determine such things as effects of certain drugs on

reading skills. Comparisons have been made of the patterns of perceptual, cognitive, and motor skills in retarded and non-retarded readers. A detailed report was presented this past year concerning the use of psychoactive agents as adjuncts in remedial reading.

Several studies are underway of some of the factors, other than I.Q., which may influence the extent to which a mentally subnormal child is seen as mentally subnormal.

The first phase has been completed of a study concerned with over two hundred institutionalized mildly retarded children. Attention was focused upon family background, family structure and familial incidence of mental retardation among mildly retarded and the relevant factors predisposing institutionalization. The significant finding is that the immediate precipitating factor leading to admission in sixty percent of the cases was the child's behavior.

A study of self-attitudes, emotional adjustment, and learning in the mentally retarded is increasing understanding of the dynamics of their behavior, both institutionalized and non-institutionalized. Findings of a part of this study, relating to patterns of hostility among the retarded, confirm the suggestion that hostility may serve different functions for different mentally deficient individuals.

A study of relationships between parental attitudes and the social development of pre-school retarded children is contributing to the understanding of the attitudes of parents toward retarded children.

The focus of a related project is on the aspects of the family relationship which appear to have consequences for the mental health of the intellectually normal brothers and sisters of a severely retarded child. One of the several aims of the study is to determine the effects of placement of the retarded child in an institution on parents' dissatisfaction with the normal children in the family.

Research activities in this area are directed toward exploring abilities starting with basic sensory and motor tasks, continuing through perceptual functions, to reasoning, memory and integrative functions. One objective is to then compare the development of abilities in retarded children with that of normal children. It is hoped that the findings will contribute to the improvement of classification, treatment, and training procedures.

Investigations to develop improved training methods for mental defectives constitute the product of principles derived from a number of studies with animals and normal humans. For example,

it has been found that both high and low level retarded individuals can readily learn to operate an arithmetic teaching machine, usually within a single short session. The testing and improvement of this device and technique continue.

It is well known that cognitive functioning in the brain-injured and the mentally defective individual shows distinct limitations in resources for handling novelty and change. Visual perception is an area which lends itself to the study of these phenomena through altered conditions of binocular vision, such as artificially induced aniseikonia -- a condition in which the image seen by one eye is different from that seen by the other.

One of the recommendations of the President's Panel on Mental Retardation was that high priority be given to development of additional research centers on mental retardation. The Public Health Service plans to begin developing, in conjunction with outstanding universities, a small number of major centers for research and research training in human development, during 1964 and 1965. These centers will provide for broadly-based research and training activities involving a number of scientific disciplines, and initially would be focused on problems of mental retardation and perinatal biology.

Construction

The Hospital and Medical Facilities Construction Program (popularly known as the Hill-Burton program) authorizes aid to assist in constructing and equipping hospitals of all types, public health centers, diagnostic and treatment centers, rehabilitation facilities and nursing homes. The various types of facilities are defined further in Public Health Service Regulations, Part 53 (Title VI of the Public Health Service Act, as amended).

Prior to 1958, the definition of a mental hospital, as established by regulation, specifically excluded "hospitals for the feeble-minded and epileptic." This restriction was eliminated in 1958 in order that Hill-Burton funds could be approved to assist in constructing facilities which provide an active medical diagnostic and treatment program for the mentally retarded. At the present time, the eligibility of facilities for the mentally retarded is determined on the basis of the purpose and function of the facility. If the facility-includes an active medical program and meets the definition of a hospital, diagnostic or treatment center, rehabilitation facility, or nursing home, and other eligibility requirements, it may qualify for aid.

Dormitories and facilities for education and training purposes comprise a relatively large segment of institutions for the mentally retarded. Consequently, the Hill-Burton program under which aid can only be provided to construct medical treatment and care facilities, as stated above, has had only a minor impact on the total need in this area.

A list of projects at mental retardation facilities that have been approved under the Hill-Burton program follows. As of December 31, 1962,there were 37 projects having a total cost of $30,888,967 with a Federal share of $12,358,321.

Projects for the Mentally Retarded
Approved Under the Hill-Burton Program
As of December 31, 1962

Location	Name of Facility	Type of Project	Total Cost	Federal Share	Status of Project
Arkansas		D-T Center	$ 248,362	$ 26,597	In operation
Conway	Arkansas Children's Colony	Rehabilitation	298,371	198,914	In operation
		Nursing Home	265,866	177,244	In operation
Connecticut					
Bridgeport	Kennedy Center	Rehabilitation	371,202	100,000	Under construction
Delaware					
Stockley	Hosp. for the Mentally Retd.	Rehabilitation	285,200	140,000	Under construction
Georgia					
Gracewood	Gracewood Evaluation Center	Rehabilitation	666,000	333,000	Under construction
Idaho					
Nampa	Nampa State School	Mental Hospital	1,328,297	478,297	Initially approved
Illinois					
Chicago	Misercordia Home	Nursing Home	730,388	123,627	In operation
Iowa					
Iowa City	University Hospital	Rehabilitation	620,000	295,767	Under construction
Kansas					
Parsons	Parsons State Hospital and Training Center	Rehabilitation	785,704	392,852	Under construction
Louisiana					
Albany	Retarded Children's Home	Mental Hospital	2,000,000	1,000,000	Initially approved
		Mental Hospital	3,241,000	1,617,000	Under construction
		Rehabilitation	600,000	300,000	Under construction
Pineville	State Colony & Trng. School	Nursing Home	776,235	388,117	In operation
Mississippi					
Ellisville	Ellisville State School	Rehabilitation	881,160	587,440	Under construction
Missouri					
Columbia	Woodhaven Christian Home	Rehabilitation	2,246,020	446,142	Under construction

New Hampshire					
Laconia	Laconia State School	Nursing Home	$ 111,000	37,500	Initially approved
		Rehabilitation	52,000	26,000	Initially approved
New Jersey					
Haddonfield	Bancroft School	Rehabilitation	547,298	175,274	Under construction
New Mexico					
Los Lunas	Los Lunas Hospital and Training School	Nursing Home	264,000	132,000	Under construction
		D-T Center	266,600	133,300	Under construction
		Rehabilitation	280,000	140,000	Under construction
Ohio					
Columbus	Columbus State School	Rehabilitation	690,000	230,000	In operation
Tiffin	Betty Jane Center	Rehabilitation	579,294	193,098	In operation
Oklahoma					
Sand Springs	Hisson Memorial Center	Mental Hospital	1,418,127	600,000	Under construction
Rhode Island					
Exeter	Ladd School	Rehabilitation	675,699	112,956	Under construction
		Nursing Home	1,385,178	300,000	In operation
South Carolina					
Clinton	Whitten Village	Mental Hospital	1,010,000	505,000	Under construction
Texas					
Abilene	Abilene State School	Rehabilitation	130,852	64,191	In operation
		Nursing Home	800,000	400,000	Under construction
Denton	Denton State School	Rehabilitation	246,804	121,250	In operation
		Nursing Home	1,254,086	625,000	In operation
		Nursing Home	924,870	460,500	In operation
		Nursing Home	1,890,000	945,000	Under construction
San Antonio	Incarnate Word College Rehabilitation Center	Rehabilitation	130,492	64,050	In operation
Virginia					
Arlington	George Mason Center	Rehabilitation	234,146	128,205	In operation
Wisconsin					
Madison	Central Wisconsin Colony and Training School	Rehabilitation	2,654,716	360,000	Under construction

D. WELFARE ADMINISTRATION

Children's Bureau

The Children's Bureau concern for mentally retarded children stems initially from its responsibility under the Basic Act of 1912 to "investigate and report on all matters pertaining to the welfare of children and child life." In the first 6 years of its existence, three of the major studies produced by the Bureau dealt with mental retardation.

The passage of the Social Security Act in 1935 and the assignment to the Bureau of the added responsibility of administering Federal grants for maternal and child health, crippled children, and child welfare services, emphasized the principle that all of the people, through the Federal Government, share with the State and local governments responsibility for helping to provide community services that children need to have for a good start in life. The Social Security Act also afforded the Bureau an opportunity to help the States develop demonstrations and special programs in areas where there were gaps in services.

Development of Maternal and Child Health Activities in Behalf of Mentally Retarded Children and Their Families

As recently as 1954, maternal and child health activities in behalf of mentally retarded children and their families were extremely limited. Many local public health nurses were reporting suspected mentally retarded children in their caseloads, but for the most part they had few or no resources for establishing a diagnosis. Consultation and guidance as to how to deal with these children and their families generally were not available. Some children who were functioning below the normal expected level of development were being followed in well-child conferences, but adequate developmental and diagnostic appraisal was not generally available, nor was continuing guidance to parents once such a diagnosis had been made.

Testimony before the House Appropriations Committee in 1956 indicated that the principal needs for mentally retarded children were to find them early, to provide a complete evaluation, to interpret the finding to parents, and to use the findings as a basis for ongoing help and care. By age groups, the greatest gap in available services was in relation to infants and preschool children. It appeared that the services that were lacking could best be provided through program emphasis within the framework of the maternal and child health program. The basic interests of this program, that is, preventive health services, child health supervision, growth and development and the fostering of good parent-child relationships are also the basic interests of a program for mentally retarded children.

It was on this basis and to achieve these goals that the Congress for fiscal year 1957, increased the annual maternal and child health appropriation and earmarked $1 million specifically for special projects serving "this group of children. The Appropriations Committee also expressed the hope that an additional million dollars of the increase which was to be distributed to the States on a regular formula basis would be used to implement services for the mentally retarded.

The Maternal and Child Health Demonstration Projects

The State health departments have been making use of these funds which have been allocated annually, to establish demonstration service, training or study projects focusing on aspects of prevention, diagnosis and evaluation, health supervision, and the problems in growth and development of children who are retarded; and on ways and means of preparing professional staff to carry out these roles.

By the end of fiscal year 1957, 25 state health departments had established at least one such demonstration. This number rose to 44 States by the end of fiscal 1959, and by the end of fiscal 1960, special project demonstrations of services, training, or study of mentally retarded children were in operation in 52 States and Territories. The increase in activity and use of these funds following fiscal 1960 is reflected chiefly in terms of the multiplication of projects in the States. Thus between 1960 and 1963 there was a 33 percent increase in the number of these projects demonstrating services through special clinics in this country.

Demonstrations of Services

These demonstration projects have allowed the States to demonstrate to local communities how a service program might be set up, how cases can be located early, what makes up an evaluation, what kinds of help can be provided to these children and their families, and how preventive programs can be developed. The accumulation of case data has also made it possible to pinpoint gaps and unmet needs in the State, and has permitted long-range planning.

The nucleus of the service demonstrations usually is a specialized clinical team. This team would include a pediatrician who is usually the medical director of the project, a psychologist, a medical or psychiatric social worker, public health nursing services, and in some clinics, a child development specialist, a speech therapist, and a nutritionist. Other medical consultants such as psychiatrists as well as other non-medical specialists are used as needed.

Training of Professional Personnel

As a part of the program some 20 full-time and 10 part-time pediatric fellowships in areas of mental retardation have been supported. Plans are under way for support of a limited number of clinical psychology fellowships in the area of infant assessment.

In a field where there is a real lack of trained personnel, the service demonstration projects have also been serving as training and orientation centers for a variety of professional workers. For example, 14 of the projects are set up in conjunction with medical schools. While these projects are providing services to children, they are using these services as a base in the teaching and training of medical students, interns, residents, and nurses. Annual reports from these 14 projects indicate that during the average year they train approximately 1,500 second-year residents and medical students, 200 nurses, 300 teachers, and provide field-work placement and supervision for approximately 30 social work students. These 14 programs alone are annually providing approximately 2,520 hours of training for professional personnel of various kinds.

Most of the service demonstration programs are using the services to retarded children to provide in-service training for health department personnel and personnel of other State agencies and institutions. Almost 90 percent of the 28,000 public health nurses have received and are continuing to receive some in-service orientation and education to the problem of mental retardation through these demonstrations. Individual projects through special institutes have reached groups of clergymen, police officers, nutritionists, social workers, teachers and others.

Program Studies

A number of the projects were primarily set up to study or evaluate a particular phase of mental retardation or aspect of service. Some of the areas included in these projects were:

(1) Study of the services a metropolitan area might need for the mentally retarded and an assessment of how these services can be provided.

(2) Evaluation and study of the use of a mobile clinic team to stimulate the development of local clinic services.

(3) Study of the pattern of growth and development of infants who are mentally retarded.

(4) Field trials and studies of screening methods and techniques of inborn errors of metabolism such as PKU.

As the projects have developed, however, almost all have undertaken particular studies as a part of carrying out their major functions. A number of projects providing training have studied attitudes of medical students toward the retarded in an effort to facilitate their approaches in a teaching program. Additional areas studied and reported on by these programs include dental problems, problems of mental retardation as reported in populations of Indian children living on reservations, waiting lists of children for admission to State institutions, and studies of the growth and development patterns of matched groups of mongoloid children reared at home and in institutions.

Services to Children and Their Families

As a result of these demonstrations a variety of services have been provided to mentally retarded children and their families. Many of these, stemming from training efforts extended to professional personnel, are indirect and cannot be clearly documented. One measure of the direct service, however, which can be documented is the special clinic services which have been provided. Since 1957, the available special clinics for mentally retarded children have grown from 4 to 110, with some 75 of these being supported by Maternal and Child Health programs. The clinics supported by Maternal and Child Health programs served approximately 25,000 mentally retarded children and their families in 1962. The services provided include diagnosis, evaluation of a child's capacity for growth, the development of a treatment and management plan, interpretation of findings to parents and follow-up care and supervision.

The services provided by selected clinic programs operated by State Maternal and Child Health Services are summarized in the following tables:

MENTAL RETARDATION SERVICES PROVIDED BY
STATE MATERNAL AND CHILD HEALTH PROGRAMS

Applications for Service, by Type and Disposition:
Reporting States, 1958-1962

Item	1958 1/	1959 2/	1960 3/	1961 4/	1962 5/	Percent Change 1962 Over 1958
Applications, total						
Number	7,099	7,873	8,609	10,426	11,704	+64.9
Percent	100.0	100.0	100.0	100.0	100.0	---
Type:						
Carried over from last year						
Number	1,123	1,788	1,685	2,228	2,760	+145.8
Percent	15.8	22.7	19.6	21.4	23.6	---
New Applications						
Number	5,976	6,085	6,924	8,198	8,954	+49.7
Percent	84.2	77.3	80.4	78.6	76.4	---
Disposition:						
Applicants admitted to service						
Number	4,936	5,401	6,180	7,080	7,815	+58.3
Percent	69.5	68.6	71.8	67.9	66.8	---
Applications withdrawn						
Number	632	644	700	755	1,369	+116.6
Percent	8.9	8.2	8.1	7.2	11.7	---
Applications carried over to next year						
Number	1,531	1,828	1,729	2,591	2,520	+64.6
Percent	21.6	23.2	20.1	24.9	21.5	---
Applications carried over per 1,000 admissions	310.2	238.5	279.8	366.0	322.5	---

Items may not add to total due to independent rounding.

1/ Based on reports from 37 States, out of 44 States which were providing services. 2/ Based on reports from 38 States, out of 44 States which were providing services. 3/ Based on reports from 40 States, out of 46 States which were providing services. 4/ Based on reports from 43 States, out of 45 States which were providing services. 5/ Based on reports from 43 States, out of 46 States which were providing services.

MENTAL RETARDATION SERVICES PROVIDED BY
STATE MATERNAL AND CHILD HEALTH PROGRAMS

Distribution by Age of New Cases Admitted to Service
Reporting States, 1958-1962, Number and Percent

Age group	Number						Percent
	1958 1/	1959 2/	1960 3/	1961 4/	1962 5/	1958-1962	1958-1962
Age reported							
Under 1 year	119	116	143	257	235	870	3.0
1-4 years	1,211	1,440	1,840	1,934	2,311	8,736	29.9
5-9 years	1,909	2,211	2,293	2,886	3,115	12,714	43.6
10-14 years	916	1,007	1,015	1,321	1,294	5,553	19.0
15-17 years	146	158	207	180	261	952	3.3
18-20 years	35	48	105	62	94	344	1.2
Total	4,336	4,980	5,903	6,640	7,310	29,169	100.0
Age not reported	600	421	277	440	505	2,243	...
TOTAL	4,936	5,401	6,180	7,080	7,815	31,412	...

1/ Based on reports from 37 States, out of 44 States which were providing services. 2/ Based on reports from 38 States, out of 44 States which were providing services. 3/ Based on reports from 40 States, out of 46 States which were providing services. 4/ Based on reports from 43 States, out of 45 States which were providing services. 5/ Based on reports from 43 States, out of 46 States which were providing services.

Efforts at the Prevention of Mental Retardation

As a result of these activities of the Maternal and Child Health Program, two particular areas where preventive efforts could be applied within the framework of this program have, been highlighted.

The first relates to the demonstrated relationship between mental retardation and prematurity. Special projects of Maternal and Child Health programs aimed at providing care for premature infants have shown the high incidence of mentally retarded infants in this group and pinpointed the need to prevent prematurity as one way of preventing mental retardation. Other demonstrations and studies have identified the relationship between the rate of prematurity, the amount of prenatal care and certain conditions during the pregnancy which might be considered as high risk. On this basis the Children's Bureau is intensifying its efforts to develop in the States better maternity care, particularly for those groups of women who are considered to be at high risk in their pregnancy.

A second major emphasis in prevention within the past few years has been in relation to phenylketonuria. This inborn error of metabolism has in the past been responsible for 1 percent of the population in our State institutions for the mentally retarded. By detecting families with the condition and by placing young infants with the condition on a special diet, mental retardation apparently can be prevented. The Children's Bureau has been working with State health departments in developing and trying out various screening and detection programs, developing the necessary laboratory facilities, and assisting States in providing the special diet and follow-up programs for these families.

Between 1956 and 1961, a total of 484 children with phenylketonuria were detected and placed under dietary supervision by these programs. More than half of this number were infants for whom treatment was started sufficiently early so that hopefully mental retardation can be prevented. Some 40 States have set up various types of screening programs to detect this condition. Some 34 States are providing some assistance to families who have children on the diet (financial and otherwise).

A major problem with the existing screening techniques has been the fact that they relied on the detection of a specific substance which appeared in the urine of those babies anywhere from 3 to 6 weeks of age. Because of the problem of reaching all infants routinely at those ages, only some 10 percent of infants in this country were being screened by these methods.

An effort to develop a screening technique which could be utilized on babies before they leave the newborn nursery has resulted in the Guthrie inhibition assay. The present field trials of this test call for screening a minimum 400,000 newborn babies in 30 States, utilizing some 40 laboratories. On the basis of the results it should be possible to determine how effective this screening procedure is and to what extent it can be utilized as a routine procedure on all newborn infants.

Results from screening 181,000 infants through June 1, 1963 have thus far resulted in the detection of 18 confirmed cases of phenylketonuria in this group. These infants all came from families in which there was no known retardation or previous case of PKU. The chances are that most of them would not have been suspected of having the condition until some symptoms or damage showed itself.

Program Aids

To promote this program effort the Children's Bureau has assisted in the production and circulation of films on mental retardation. The Bureau also has operated an exchange of educational materials as a service to the mental retardation clinics. Since November of 1961, some 16,500 items have been distributed to the clinics through this exchange. Sixteen special publications have been developed which have had a distribution of 651,350 copies. In addition the Bureau has reprinted and distributed some 55,500 copies of pertinent articles appearing in various professional journals which seemed to be of importance to this phase of the program for the mentally retarded.

Summary of Achievements, Health Services Program (1957 to 1963)

The achievements of this program from 1957 to date can be summarized as follows:

Forty-nine States and 3 Territories have initiated special program activities on behalf of the mentally retarded as a part of their maternal and child health programs demonstrating new patterns of service and training.

Of the Nation's 110 special clinics for retarded children, 75 are being supported through this program.

Forty-six States in 1962 provided special clinical services in the community to close to 19,000 mentally retarded children and their families living at home.

A core group of over 300 specialists from various disciplines have been recruited and trained to provide service and leadership in these States for the mentally retarded.

Twenty full-time and 10 part-time pediatric fellowships in mental retardation have been made available.

Eighteen teaching hospitals are using the special clinical services to retarded children as the basis for training of medical students, residents, and interns.

Approximately 2,520 hours of professional time from project staff are made available each year for the training of students. Some 1,500 second-year residents and medical students are annually exposed to newer concepts and approaches to the problem of mental retardation.

Over 25,000 public health nurses have received some in-service training in mental retardation and in assisting families in the home care of mentally retarded children.

Programs of screening, detection and prevention of mental retardation in the condition of phenylketonuria, an inborn error of metabolism, have been developed in some 40 States.

Over 200 children with PKU are currently under the dietary supervision of the clinical program staffs.

Children Served by Child Welfare Agencies

Of the more than 2 million retarded children in this country, 96 percent live in the community,most of them with their own families, others in foster family or group care. These children—frequently clients of public child welfare agencies--present a wide range of emotional and practical problems to their families. Many retarded children, particularly those of mild intellectual deficits, are members of ethnic minorities, live under substandard conditions, lack proper educational and cultural opportunities and are otherwise exposed to adverse environmental circumstances which cause their mental retardation, or at the very least contribute to their inadequate mental and social functioning.

As of March 1962, public child welfare agencies provided services to approximately 423,000 children. An estimated 10 percent of this group are mentally retarded. Nearly half were in foster care. Not included in these figures are significant numbers of retarded children in child caring institutions for dependent and neglected children, many of which are under private agency auspices. An indication of the severe shortage of child welfare 'services for retarded children is apparent when it is recognized that 56 per 10,000 of the total child population receive service and 120 per 10,000 of the child population -- many of whom need and can profit from social services -- are mentally retarded.

To meet this tremendous need, the Children's Bureau has directed its efforts in relation to child welfare services for retarded children and their families toward --

Investigating and reporting upon the effect of mental retardation on family life and the impact of environmental conditions on mental and social growth.

Identifying and interpreting the role of social agencies in services to the retarded and stimulating these agencies to assume their responsibilities.

Extending and strengthening basic child welfare services and establishing specialized resources and facilities as appropriate, with special emphasis on prevention as well as treatment.

. Increasing the knowledge and skill of child welfare and other social work personnel through in-service training, development of guide material, and enrichment of professional education experiences.

Stimulating research and demonstration projects in the social and behavioral aspects of mental retardation of significance to child welfare.

The Bureau has attempted to fulfill its responsibilities through the activities of its staff specialist on social services for mentally retarded children and through other regional and central office staff. Activities have included study and evaluation of needs, resources, and practices; dissemination of information; technical assistance and consultation; development of guide materials; planning and conduct of training and educational experiences. Consultation has been provided to other Federal agencies, national voluntary organizations and groups, State welfare departments, interdepartmental committees, community planning councils, schools of social work, institutions, and other agencies.

The impact of these activities on child welfare and other social agency programs is somewhat intangible and difficult to measure and document. Nevertheless, it is believed that Bureau leadership has contributed in part to some of the following developments:

Public and voluntary welfare agencies at national, State, and local levels devote increasing attention to the provision of learning experience in this subject area.

. In approximately half of the States, preliminary steps to the development of Statewide comprehensive programs for retarded children have been undertaken. Public and child welfare agencies have participated in these steps including surveys and inventories, legislation, policy formulation, program planning, and methods for coordinating the programs in State departments and in local communities.

Child welfare workers in some communities provide services to families and children following diagnostic evaluation and in perhaps one-third of the States, assume responsibility for preadmission and aftercare services for children in institutions. This has facilitated the return of some retarded children to the community and has enabled more parents to keep their children at home.

Basic child welfare services, still in short supply, are nevertheless being increasingly extended to this group. Day care, counseling and guidance, and specialized foster family homes are helping to relieve the burdens of families and contributing to the healthier growth of the children. The removal of some retarded children from damaging homes has greatly enhanced their mental development.

Schools of social work are becoming increasingly active in promoting greater knowledge of the needs of the mentally retarded through incorporation of content into the curriculum, sponsorship of training institutes, and development of teaching materials. The number of schools offering field instruction placements in facilities serving the retarded has increased in the past 4 years from approximately 7 to more than 20.

Child welfare agencies are recognizing a need for research and demonstration projects regarding the mentally retarded, and schools of social work have conducted some outstanding studies in this area.

Growing concern and interest is being reflected in some States in programming for the retarded juvenile offender who frequently becomes a client of public child welfare agencies through the pathways of neglect or deliquency.

Public responsibility for the development and financial support of day care centers to provide for care, protection, and social development for retarded children of preschool age or for the older child ineligible for public school attendance is growing. This responsibility is also being reflected in the development of pilot demonstration projects and in the step-up efforts of States to strengthen the standards and licensing requirements of privately sponsored residential and day care facilities caring for retarded children.

Church-sponsored organizations are assuming a more active role in identifying their contribution to services for the retarded child and in implementing plans for national action by their membership agencies.

To eliminate gaps in the provision of social services to retarded children, the Bureau plans to continue its help to the States. Serious deficiencies exist in the standards of care provided in some institutions, and social services in these facilities need to be expanded and better coordinated with community resources. In addition, intensified efforts must be devoted to in-service training and professional education of social work personnel, to the broad aspects of community planning and organization and to the development of comprehensive State and local programs for retarded children.

The Children's Bureau under its recent authority to make grants for research and demonstration projects in child welfare, has recognized the need for additional knowledge and new programs in the social and behavioral components of mental retardation. Of the projects received up to January 1963, roughly 15 percent are concerned with mental retardation.

Some of the projects approved to date include:

. Training programs for preschool age severely retarded children.

Techniques of group psychotherapy with mentally retarded adolescents.

. The use of homemaker services for preschool children as an alternative to institutionalization and to preserve family stability.

The effect of mental stimulation on children in culturally deprived, low income families.

These developments represent the beginning phase of this aspect of the Children's Bureau program. It is anticipated that applications for projects in mental retardation for research, demonstration and for training as funds are appropriated, will increase as agencies and institutions of higher learning become more aware of this resource.

Children's Bureau Plans for the Future

An indication of progress to date is the successful establishment of clinical services for retarded children in most State maternal

and child health programs. However, only a few States have opened more than one clinic, and these already have long waiting lists. An increase in the number of these clinics in each State is therefore essential. The number of retarded children will probably increase as a result of the increase in the child population and the increase in life expectancy.

During the next few years it is anticipated that the following developments will take place:

Expansion of community programs for mentally retarded children to provide more diagnostic, evaluative, and preventive health services and social services.

Continued emphasis on prevention of retardation through improved maternity care, the care of premature infants and improved methods for the location, diagnosis, and treatment of infants with metabolic disorders which result in retardation.

Greater use of the well-baby clinic for early casefinding and supervision.

Development of standards and licensing for the growing number of nursery school and day care programs for young retarded children.

Increasing the availability of home assistance programs for parents in the home care of retarded children.

Development of standards and programs for diagnosis, medical care, and health supervision for children in residential institutions.

Development of specialized services for retarded adolescents.

Continued emphasis in the detection of young children functioning on a retarded level by virtue of social and cultural deprivation and the provision of child welfare services aimed at prevention, planning and treatment.

Stimulation of research and demonstration projects that will contribute new knowledge and techniques in promoting the maximum development of retarded children through child welfare services.

Greater activity on the part of schools of social work in enriching the educational experiences of students and practitioners in mental retardation and stepped-up staff development activities of child welfare agencies.

Bureau of Family Services

Although the Bureau of Family Services does not have a special program for the mentally retarded, its programs care for the largest group of retarded persons outside of the institutions. Retardation is a major cause of dependency. The passages of the "Report of the President's Panel on Mental Retardation" which refer to the mildly retarded describe equally well a sizeable portion of the public welfare caseload. To a large extent, public assistance recipients are the most deprived people in our society; this is the group with the heaviest concentration of mental, physical, educational and vocational handicaps.

If 3 percent of our total population is retarded, at least 200,000 are being helped through the Bureau of Family Services programs. Two recent studies indicate that the incidence is probably much higher. A current study of those receiving Aid to the Permanently and Totally Disabled, completed by 32 States, indicates that 15 percent of the disabled are retarded. A 1961 study of the characteristics of the recipients of Aid to Families with Dependent Children supports the impression that at least 10 percent of parents in this group may be retarded.

All States provide financial assistance to the eligible retarded, many provide some medical care, a few offer social rehabilitation services.

During 1962, the new Public Welfare Amendments and a policy change gave States new tools and an incentive for broadening services to retarded. The incentive is an increase (from 50-75 percent) in the Federal share of the cost of providing certain services. Several of the new provisions could result in improved services to the retarded:

1. Under title IV, States will be required to make an individual plan for each child receiving assistance under AFDC program. This could be the means of identifying the retarded child and insuring a minimum of attention to his special problems.

2. Also under title IV, the community work and training program, to assist States in encouraging the conservation of work skills and the development of new skills for individuals who are over 18 and receiving aid to families with dependent children. This program could provide training in basic skills for recipients whose employment potential is poor because of inadequate education, lack of motivation, personal appearance and attitude, etc.

3. Under titles I, X and XIV, social services for the aged, blind and disabled,

a. Who may need protection because they are limited in the management of their affairs, are exploited or are living in hazardous circumstances;

b. Who need services to remain in or return to their own homes or communities, particularly those who have mental conditions requiring special planning; and

c. Those who have potential for self-support.

Many retarded adults are included, in these groups.

4. In March 1962 the Secretary announced a policy change permitting Federal financial participation in assistance to persons on conditional release from mental institutions, including those for the retarded. This revision was intended to help more people leave mental institutions and restore them to the community.

5. States may also elect to provide a continuum of services to the retarded. These are described in policy material released to States in late 1962.

6. For the first time, The Federal government will participate in the cost of services to former and potential recipients. This provision could enable States to broaden services to the retarded and their families.

7. For the first time also, the Bureau of Family Services has the authority to support demonstration projects in public welfare. The purpose of this legislation is to encourage States to experiment with new and better ways of providing services to recipients. New programs for the retarded could be developed with such support.

8. In implementing this legislation, States are urged to use fully not only all community resources, but to participate in community planning activities.

To assure the scope and quality of service, standards for size of caseload, frequency of visits, and for ratio of workers to supervisors have been established, which States will be required to meet.

Staffs need the skills as well as the opportunity to provide rehabilitative services if the intent of this new legislation is to be realized. Funds for staff training are therefore included as an essential and integral part of this new program. States may also call upon the Bureau specialists for assistance in developing their programs of services and of staff development.

These are important new weapons in the fight against mental retardation, but certain even more fundamental conditions must be met if public welfare's efforts are to be successful:

1. Standards of assistance must be raised to levels adequate for health.

2. More comprehensive medical care, including preventive services, must be provided.

E. OFFICE OF EDUCATION

The Office of Education is the primary education agency of the Federal Government. It offers leadership in contributing to the process of shaping educational goals and policies to insure the optimum development of all our people. It identifies needs, makes studies, publishes reports, conducts professional conferences, and provides professional and financial assistance to strengthen areas of education where there appears to be nationwide need. Specifically, it conducts some grant programs which contribute to the education of the mentally retarded.

The interest of the Congress and the Executive Branch in developing--at the Federal level--a balanced approach to the problems of mental retardation has brought into sharp focus the importance of special education in an adequate overall program for the mentally retarded and the need for extending and improving special education programs in the schools of the Nation.

Expansion and Improvement of School Programs for the Retarded

In the education of the retarded, one of the major emphases of the Office of Education has been to assist in the expansion and improvement of school programs for the mentally retarded in the Nation.

The activities of the Office of Education in expansion and improvement of educational programs have taken many forms. These have included fact finding and opinion studies and status surveys, the calling of professional conferences on needs and programs, and extensive consultation and correspondence.

In recent years it has been possible to call more conferences in the field of the education of the retarded. Examples of such conferences are: a conference on "Classroom Procedures for Teaching

the Severely Retarded" and a conference on the "Preparation of Mentally Retarded Youth for Gainful Employment," both of which eventuated in publications. The first conference included a number of professional persons who had had considerable experience in the problem of classroom work with the "trainable" or moderately retarded children. The second conference included representatives of three agencies, the American Association on Mental Deficiency, the Office of Vocational Rehabilitation, and the Office of Education, and was directed primarily toward school type programs preparatory to efficient vocational preparation for the mentally retarded. Other conferences which emphasize the educational needs of the mentally retarded are the annual conference of State directors of special education and periodic conferences of national organizations concerned with exceptional children including the retarded.

Although only an estimated one-fourth of the number of mentally retarded children and youth needing special education provisions are receiving them, progress is being made. The following table presents the progress changes that were made during the decade 1948-1958.

Changes in Local Public and Residential School Programs for the Mentally Retarded

Type of Schools	Enrollments	Number of States	Number of Local School Systems
Local Public Schools			
Enrollment, 1948	87,179	47	730
Enrollment, 1958	219,588	48**	3,102
Numerical gain	132,409	1	2,274
Percent gain	151.9	2	312.3
Residential Schools			
Enrollment, 1948	21,562	47	140
Enrollment, 1958	28,207	46	192
Numerical gain	6,645	-1	52
Percent gain	30.8	-2	37.1

*Statistics are being collated for the school year 1962-63 - Increases are anticipated.
**The total number surveyed.

As the table shows, there was, between 1948 and 1958, a marked increase in the enrollments of mentally retarded pupils in special education facilities and there is reason to believe that this trend is continuing. Perhaps even more significant than the increase in enrollment was the increase in the number of school systems offering special educational opportunities for their mentally retarded pupils. The number of local public school systems providing such programs has quadrupled in the period 1948-58. This and other trend developments were reported in the recent publication "Exceptional Children and Youth: A Chart Book of Special Education Enrollments in Public Day Schools of the United States," and in a complete summary of enrollments now in press, issued by the Branch on Exceptional Children and Youth.

Currently the Office of Education is in the process of again collecting statistics on the numbers of teachers and numbers of pupils in special education programs in local public schools and residential schools. It appears that the growth trend is continuing. The mailing list of local schools participating in the 1963 study has more than doubled since statistics were collected in 1958.* The growth in provision for mentally retarded in local school systems has evidently increased again recently although, at the present time, the rate of increase cannot be reported.

Professional Preparation of Personnel in the Education of the Mentally Retarded

The Office of Education has for years been concerned about the professional competencies as well as the shortage of special educators in the field of mental retardation. It is estimated that about 75,000 specially prepared teachers are needed if all the Nation's mentally retarded children and youth are to have access to suitable educational opportunities. On the basis of facts and estimates, it appears that only about 20,000 such teachers are now available, and many of them are not fully qualified.

*The current mailing list of over 7,700 administrative units was compiled from a total survey of the approximately 31,000 school districts in the United States, and is a list of all the public school centers or administrative units conducting programs for one or more types of exceptionality. The mailing list also includes about 400 residential schools for the mentally retarded.

Through conferences and publications the Office has given considerable leadership in the matter of improving the professional qualifications of special educators to work with the mentally retarded. It has carried on an extensive competency study on "Qualifications and Preparation of Teachers of Exceptional Children," from which developed several bulletins, including one for the mentally retarded. Recently professional conferences have been called on such matters as college and university curriculums for the preparation of special educators in the field of the mentally retarded and competencies needed by leadership personnel in the education of the mentally retarded.

The Office of Education is also conducting a recurring study on colleges and universities offering professional preparation for special educators. Preliminary data indicates that in 1961-62, 89 colleges and universities reported at least a minimum sequence of courses for the preparation of teachers of the mentally retarded. This is more than double the number of institutions (40) offering such preparation in the year 1953-54. The data collected for this study contains information on other relevant matters such as number of students, degrees granted, and number of faculty members.

It was not, however, until the passage of Public Law 85-926 that the Office of Education was able to make a substantial financial contribution toward reducing the shortage of qualified special educators to work with mentally retarded children and youth. The program developed under Public Law 85-926 is designed "to encourage expansion of teaching in the education of mentally retarded children through grants to institutions of higher learning and to State educational agencies."

Since the time the program under Public Law 85-926 was initiated in fiscal year 1960, a number of leading educators have been brought to the Office to advise on the administration of the Act. Although the law authorizes the use of funds for the training of classroom teachers as well as leadership personnel, the Office decided, on the basis of consultation, to place the emphasis, in the early years of the program, on the preparation of promising persons to occupy leadership positions to: (1) conduct programs in the training of teachers of the mentally retarded (Section 1 of the Act); or (2) direct or supervise programs for mentally retarded children in State educational agencies or local schools or local school systems (Section 2 of the Act). It is quite possible that the authorization to train classroom teachers of the mentally retarded under Section 2 of the Act will be implemented within the next two years.

The first impact of this program has already been felt throughout the Nation. Not only have promising individuals been recruited, but the quality of professional preparation and the procedures for selecting special educators are steadily improving. As more fellows prepared under the program assume positions of leadership, they will multiply their effectiveness and the full impact of the program will be even more deeply felt.

During academic year 1963-64, twenty-six colleges and universities will be participating under Section 1 of the law. Twenty-three of these institutions will be receiving fellowship grants. Three institutions will receive a stimulation grant to enable them to strengthen their programs in the education of the mentally retarded so that, hopefully, they will eventually be in a position to receive fellowship grants.

Under Section 2 of the law, all but one State, to date, have participated in the program. This widespread use of fellowships by State departments of education has insured national recruitment of professional personnel in the area of education of the mentally retarded.

It is estimated that, by the end of fiscal year 1963, a total of 669 fellowships will have been awarded under the program to about 440 persons. Preliminary follow-up studies of former fellows who have studied under the program have indicated that a large proportion of them have assumed positions of leadership in the education of the mentally retarded.

Acquisition and Dissemination of Information and New Knowledge

The Office of Education conducts studies and surveys of both an opinion and fact-finding nature, encourages and contributes to the support of research and disseminates information on the education of the mentally retarded.

The following are examples of some recent studies. Two directories are maintained: "Special Education Enrollments in Local Public Schools: A Directory," and a directory of "Personnel in Special Education in State Departments of Education." Both of these have proved to be extremely useful to families and agencies in their search for convenient and adequate placements for retarded school-age children. A brief popularly written bulletin, "The Retarded Child Goes to School," which was also intended as a service bulletin for parents, students, and the general public, has had a very wide sale. The bulletin, "Curriculum Adjustments for the Mentally Retarded," was prepared some time ago and has since been revised and is still

current. Further studies on curriculum, however, are planned for the immediate future. The bulletin, "Teachers of Children Who Are Mentally Retarded," which was one aspect of the broad survey of opinions on the competencies required by teachers of exceptional children, has also been much used in the construction and revision of college curriculums for special teachers and for other purposes. In addition to these more formal publications, the Office of Education has available for distribution a number of specialized bibliographies on the education of the retarded. This service also includes the maintenance of current lists of State and local curriculum guides for the education of the retarded.

Since the Branch of Exceptional Children is interested in all types of educational exceptionality, it frequently occurs that the contributions to the education of the retarded form one part of studies which are multi-area in character. Examples of such studies have already been mentioned. They include the statistics of special education for exceptional children, the survey of college and university programs of preparation, and the directories. Other projects under way which deal with the retarded as well as other types of exceptionality include a study of certification of teachers of exceptional children, a study of legislative provisions for the education of exceptional children, and a study of State financial aids to local school systems in all areas. These studies are all nationwide in scope and will contribute substantially to knowledge regarding the current status of programs. They will also be very helpful in planning future developments on the part of State and local school officials. In cooperation with the National Association of Local Directors of Special Education, another study, "Inservice Education for Professional Growth," is in progress.

The Office of Education has also increased its efforts in cooperation with other groups to identify critical needs and to encourage investigators to undertake research which would throw new light on mental retardation. Their staff is also increasing its emphasis on activities which will result in the application of research findings.

In addition to the foregoing work, there are two other resources in the Office of Education which have specific research functions in this field: one is the Cooperative Research Program authorized under Public Law 531, 83d Congress, and the other is Title VII—Educational Research Media--of the National Defense Education Act.

Cooperative Research Program

The initial appropriation of $1 million to the Cooperative Research Program, authorized under Public Law 83-531 in 1957, was made available with the request that approximately two-thirds be

used to support research pertaining to problems in the education of the mentally retarded. Total Federal support through FY 1962 for all projects under the Program has been approximately $24.5 million. About 11.4 percent, or over $4.8 million has been given for research on problems in the field of mental retardation.

A total of 663 projects have been recommended to the Commissioner by the Cooperative Research Advisory Committee since the beginning of the program. Seventy-seven, or approximately 17 percent, are concerned with educational problems of the mentally retarded. The 77 projects can be categorized into eight general problem areas. The area and a brief description of a representative problem that is or has been investigated in each follows:

Cognitive processes: An example of a type of problem in this area is one in which the investigators are studying how mentally retarded children differ from normal and gifted in their perception of form and meaning.

Communication: One typical project has shown that for mentally retarded children the best language channel for learning is listening. This is especially true in the primary grades.

Counseling and guidance: Study is being directed toward an assessment of the attitudes of parents in order to determine what personality variables affect their attitudes, and what effect periodic counseling would have on those attitudes.

Education and training: A 4-year longitudinal study, still being carried on, is making comparisons of the mentally retarded children's mental, educational, and social development as a result of being in special or regular classes.

Identification and survey: A research project in this area reports on the number of mentally retarded children in one State and how other States might use the techniques that were devised for surveying and identifying mentally retarded children on a statewide basis.

Learning: The finding that mentally retarded children, as compared to normal children, have more fears and worries and the impact this has on motivation and performance on learning tasks is typical of the type of research projects in this area.

Measuring instruments: A research project in this area has resulted in a new test for measuring the hearing vocabulary and verbal intelligence of mentally retarded children from as young as 22 months to 18 years.

Miscellaneous: One project within this area is concerned with research design and methodology problems that must be accounted for in researching problems of educational significance in the whole field of mental retardation.

Four research projects which were recently initiated are:

1. A demonstration project which has as its major purpose the field testing of research findings in a natural school setting. The demonstration is based upon previous research of Dr. 0. K. Moore of Yale University. He found that pre-first-grade normal children can learn basic intellectual and interactional skills, e.g., to type, to print, to read, to take dictation, and to objectify their interactional experiences in the form of a dialogue prior to first grade. On the basis of these findings, Dr. Burton Blatt of Boston University is demonstrating the effects of placing familial retardates (those who do not have central nervous disorders) in a similar environment and using similar teaching techniques as were used by Dr. Moore with normal children. This approach is based on the notion that the learning of retarded youngsters may approach a normal level if they have an opportunity to learn under conditions which are not threatening.

2. A basic research project was initiated with Dr. Kai Jenson of the University of Wisconsin. This project is concerned with a study of factors influencing learning and problem solving behavior in the mentally retarded.

3. Another research project recently initiated is being conducted by Dr. Leslie F. Malpass and his associates of the University of South Florida. The major purpose of this study is to evaluate the usefulness of two automated teaching procedures ("teaching machines") for mentally retarded children. Both automated procedures will be compared with a standardized classroom instructional procedure in spelling and reading. The experimental procedures offer specific promise for teaching spelling and reading to retarded children who need such skills for minimally adequate self-maintenance in current society but who, too frequently, even in special education programs, do not gain such basic skills.

4. The social adjustment of mentally retarded children and its bearing on how these children learn in special and in regular classes is the problem under investigation in another research project currently under way. This study is being directed by Drs. John de Jung and Norris G. Haring of the University of Kansas.

Over three-fourths of the 77 research projects are completed at the present time. The seven following examples illustrate research findings and possible implications for the whole field of education of the mentally retarded.

1. Most standardized tests are difficult to use with severely (trainable) mentally retarded children because they are usually heavily penalized by verbal, motor, sensory, and experimental handicaps. Therefore, the resulting low I.Q.s are not too meaningful. It appears that the ideal test to employ in the study of mental deficiency would be one which investigates the ability to learn. Researchers at New York University have designed a test which evaluates the child in learning abilities. Results of this type of test can be used as a basis for evaluating the educability in severely retarded children.

2. Up to the present time no one has reliably demonstrated that educable mentally retarded children placed in special classes when they start to school develop mentally, academically, and socially at a more advanced rate than they might have had they continued in the regular grades. Past research has been fraught with faulty design, involving such problems as biased groups used for comparisons, small numbers of children studied, inadequate measures on the children and untrained teachers. The preliminary report of a 4-year study undertaken at the University of Illinois, one that has overcome many of these problems of research design, shows that the educable mentally retarded who have been in special classes for only 2 years are far ahead in social- adjustment and considerably ahead academically as compared with their equals in regular classes. The impact the findings of this study may have on the total field of education in providing special classes may be one of the greatest breakthroughs in the area of the mentally retarded.

3. In developing educational programs for mentally retarded children great emphasis has been placed on motor tasks and rote memorization and little attention has been given to more complex mental processes such as the discovery of a principle. Available evidence appears to indicate that such an emphasis has oversimplified the abilities and limitations of mentally retarded children. An investigation at Syracuse University concludes that the rate of learning of mentally handicapped children in three types of direct learning performance- sensorimotor learning, rote learning, and the discovery of a principle-—does not differ significantly from that of intellectually normal subjects with similar mental ages. It would appear that we are unnecessarily placing restrictions on the learning potential of the mentally retarded child by not taking advantage of the abilities he does possess in abstract reasoning and overemphasizing the abilities we assume he possesses in, for example, motor development.

4. Many individuals have assumed in the past that mentally retarded children do not have fears and become upset with failures and therefore have no worries. For example: "All he does is wash dishes, or dig ditches, or carry garbage, etc.; he doesn't have any real worries." Studies of Southern Illinois University have revealed that this concept about the mentally retarded is not true. It was found that the manifest anxieties (worries and fears) of mentally retarded children both in institutions and in special classes are significantly higher as compared with normal children. Recognition of the impact that worry and fear have on learning effectiveness in the classroom may well tend to foster a change in attitude toward the mentally retarded child by many teachers and in turn result in a higher level of accomplishment by the mentally retarded child.

5. The old adage that an individual who is not good at book learning is the one who is good with his hands has been refuted by researchers at the University of Wisconsin. They found that the motor retardation of the educable retarded child is greater than had been previously supposed. Their motor abilities are organized in much the same way as normal children and their development of these abilities is similar in growth pattern to normal children but at a lower level. These factors suggest that educable mentally retarded children profit by the same kind of motor experiences as normal children although much more patience will be required in setting the stage for learning. The most important implication of this study is that a well-planned program of physical education should assume an important place in the educational programs of the mentally retarded.

6. In teaching the mentally retarded the question invariably arises as to what particular method or methods would tend to increase the rate at which mentally retarded children learn. Certain facets of this question are being studied at the University of Illinois. The researcher is employing an automatic teaching device in teaching mentally retarded children in the area of the language acts. From this study will come programming principles based on sound learning theory to be used in future teaching of the mentally retarded through the use of autoinstructional devices. This type of aid will permit the teacher to spend more individual time with her students.

7. Research at San Francisco State College has devised a test which can measure the change in communicative effectiveness of mentally retarded children. It is now possible for

both teachers and speech therapists to determine the level of communicative effectiveness of mentally retarded children. They now can incorporate the teaching of particular communicative skills with the daily life activities of the children by providing more experiences in the areas in which the children have been found to be weak.

Copies of all final reports of research projects supported by the Cooperative Research Program are sent to the Library of Congress. The Library, in turn, distributes the reports to approximately 60 subscribing libraries throughout the Nation. They are available through the inter-library loan system.

The monographs released by the Office of Education, and distributed by the Superintendent of Documents, U. S. Government Printing Office, are based on selected cooperative research program projects and activities. One of the eleven that has been released to date is entitled "Motor Characteristics of the Mentally Retarded." The publication reports on a research project conducted at the University of Wisconsin. Six additional monographs are in the latter stages of printing, editing, and proofing. Twelve more monographs are planned for fiscal year 1964. Among these will be one summarizing all cooperative research projects concerned with mental retardation.

The exact number of articles based on cooperative research projects that have been prepared by the investigators and published in professional journals is unknown. It is known, however, that one project alone was the basis for 26 different professional journal articles. Information pertaining to the dissemination of research findings will be available in the near future and will be based on a survey of information secured from the principal investigators.

Another method of dissemination is the publication of the abstracts of completed projects dealing with the mentally retarded in the quarterly issues of the American Journal of Mental Deficiency.

Educational Media

Educational Media Research and Dissemination - Title VII of the National Defense Education Act - authorized research, experimentation and the dissemination of information concerning applications and adaptation of communications media to instructional problems. Addressed primarily to the problems of providing higher quality instruction to an ever-increasing school population, of providing worthwhile educational experiences in out-of-school hours, and of

individualizing instruction to meet the need of learners, this program and its findings become important to the public schools in the education of the mentally retarded as in the education of the average or gifted.

To date, for research and dissemination projects directly concerned with the mentally retarded, approximately $223,000 has been allocated of the $15 million obligated for the total program. The findings of the other research projects, however, will in many cases be applicable to this group.

Three research projects directly affecting the. mentally retarded have been completed. It was discovered at Grambling College, Louisiana, that student achievement between three techniques involving learner participation and the presence or absence of narration in an instructional film of "Health and Safety" showed no significant differences. However, the University of California, Los Angeles, has shown that "story films" may be a very successful medium for teaching children with mental retardation. Black and white held the learners' attention as well as color, depending upon the film content, and length of film was not a depreciatory factor as long as personal involvement in the scenario occurs. In addition, animation, although effective but expensive, does not appear superior to live photography. Partlow State School, Alabama, compared two methods of programed instruction with conventional methods for teaching the mentally retarded. Three groups of mentally retarded children were taught addition and subtraction for two semesters by one of the following methods: (a) programed instruction requiring write-in response, (b) programed instruction with multiple choice response, and (c) conventional classroom instruction. The results reveal: (a) All three groups showed significant improvement during the course of the addition program, (b) The group using programed instruction with multiple-choice response resulted in significant improvement during the course of the subtraction program, (c) No significant improvement on subtraction problems occurred in the group using programed instruction with write-in response or the one undergoing conventional classroom instruction. It was concluded that automated teaching is a useful supplementary approach to teaching students who are mentally retarded.

One of the research projects reported in progress last year will be completed later during this fiscal year, but tentative findings have been sufficiently significant to enter into a contract for the production of a film to disseminate the final results. The research project, "The Development and Evaluation of a Curriculum for Educable Mental Retardates Utilizing Self-Instructional Devices or Teaching Machines" is being carried out by the Edward R. Johnstone

Training and Research Center, New Jersey, which will also produce the 27-minute, 16mm, black and white sound film describing the use of teaching machines in the education of the mentally retarded. This film will be widely distributed to the public schools, colleges and universities, and State departments of education throughout the Nation. Recently initiated research projects focus on basic learning variables bearing on all ability groups to include mental retardates. Contracts have been negotiated with the University of Illinois, Colorado State University, and the University of Utah to carry out studies in depth of the relationships of educational media to basic instructi problems, such as psychological and educational factors in transfer of training, the relationships of new educational media to non-intellective factors in learning, and aspects of the instructional procedure involved in the use of new educational media. Beyond their immediate application, the results will indicate areas that have either not been researched or which need further exploration. Such research should elicit heretofore unknown information about the vast continuum of human ability, from the extremely retarded to the highly gifted.

The findings of projects supported under the provisions of Title VII are widely disseminated for the benefit of the public schools and institutions of higher education in using new communications media to educate their students. The final report is distributed through the Library of Congress Documents Expediting Service to key libraries across the Nation and a copy is sent to each chief State school officer. The completed report is microfilmed and made available through the University Microfilm Service and an abstract of the report is published in a national educational research quarterly. Critical essays on appropriate groups of completed projects also appear in the research quarterly and special reports on groups of projects will be published.

F. VOCATIONAL REHABILITATION ADMINISTRATION

The Federal-State vocational rehabilitation program offers a wide array of services for the disabled, including counseling and guidance, medical and related services, training placement, and other rehabilitation services. These are geared to the rehabilitation of physically and mentally handicapped persons so that they may prepare for and engage in remunerative employment to the extent of their capabilities, thereby increasing not only their social and economic well being but also the productive capacity of the Nation. The Vocational Rehabilitation Administration also encourages and supports research (local, State, national and international), and demonstrations in methods and techniques for improving and expanding vocational rehabilitation services to disabled persons; and provides professional training and instructions in technical matters relating to vocational rehabilitation.

Mentally Retarded Persons Who Could Benefit from Vocational Rehabilitation Services

It is estimated that there are from 60,000 to 90,000 persons, mostly children or adolescents, who are so severely retarded that they will remain, throughout their lives, completely dependent upon others. Vocational rehabilitation has little to offer them. They will always need custody; and, unless major medical discoveries are made, their vocational potential will remain extremely limited.

A second category comprising between 300,000 and 350,000 individuals are much more capable than those described above. They may be trained to care for their bodily needs and functions, performing well in a protective environment. These individuals can learn and undertake semi-productive endeavors. Their shortcomings become evident when they are called upon to understand the meaning of symbols as used in the written language. Present day evidence, in and out of institutional settings, shows that these people can learn many tasks when patiently and properly taught. The better their overall emotional adjustment, the greater the likelihood that through rote memory they can acquire several job skills.

The third and largest group of the mentally retarded, totaling some five million persons, is in greatest need of service from vocational rehabilitation. A substantial number of the five million individuals do adjust to the demands of our society and take a positive place in our manpower pool.

Our knowledge of this third category is incomplete at this time. The report of the President's Panel on Mental Retardation states, "No one knows what proportion of the nation's unemployed and out-of-school youth are mentally retarded or even how many were once enrolled in special classes." Current studies have shown that an estimated 75,000 retarded youths leave school each year who have a potential for independent living and for self-support. Despite an improved public school program, 250,000 of the one and one-fourth million school-age retarded are enrolled in special classes and between 25 and 40 percent of those coming out of the special education programs still cannot be placed vocationally. Thus, one can see that the largest proportion of this third category is in need of vocational evaluation and training as well as job placement.

It is the vocational rehabilitation of this third group to the point where they can take and hold a job that constitutes the focus of the Vocational Rehabilitation Administration program. Usually the retarded person referred to the rehabilitation agency has had no employment experience or a series of unsuccessful attempts on a job. His lack of skills and confidence further jeopardizes his opportunities in the labor market. The average age of the mentally retarded person seeking vocational rehabilitation services is 19 as against an average age of 36 for all rehabilitants. These are some of the problems confronting the rehabilitation counselor--problems of community attitudes as well as those of the client himself.

Number of Mentally Retarded Persons Rehabilitated

The number of mentally retarded persons rehabilitated by the State rehabilitation agencies is increasing. There was an increase in the number from 1961 to 1962 of 25 percent. It is expected that 5,400 will be rehabilitated in 1963 at an estimated expenditure of $3.5 million in Federal funds. This total compares with the expenditure of $2.8 million in 1962 for the rehabilitation of 4,458 mentally retarded, and $2.2 in 1961 for the rehabilitation of 3,562 mentally retarded, and $1.8 in 1960 for the rehabilitation of 2,937 mentally retarded. (See table.)

Estimated Number of Mentally Retarded Rehabilitated by the State Vocational Rehabilitation Agencies in Fiscal Years 1959-1963

Fiscal Year ending June 30	Persons Rehabilitated	
	Total 1/	Mentally Retarded 2/
1959	80,739	2016
1960	88,275	2937
1961	92,501	3562
1962	102,377	4458
1963	110,400	5400
1964	126,500	7500

1/ Total rehabilitants, actual for fiscal year 1962; estimated for fiscal year 1963, based on State budget estimates.

2/ Estimates based on the trend in the number and percent of rehabilitated for each group in fiscal years 1963-1964 only.

Extension and Improvement of Services to Mentally Retarded Persons

Projects to extend and improve rehabilitation services generally (made under Section 3 of the Vocational Rehabilitation Act) have substantially contributed to increasing the number of rehabilitations among the mentally retarded. A total of 16 projects concerned with the mentally retarded were supported in 1961, and 9 projects in 1962.

Typical is the project in the State of Connecticut. This project has been developed by the Connecticut Bureau of Vocational Rehabilitation in close cooperation with the Southbury Training School and the Mansfield State Training School and Hospital, which are under the Office of Mental Retardation of the State Department of Health. A principal aim of this project is to tie in the use of local rehabilitation offices and other local facilities such as rehabilitation centers and workshops more closely with the two institutions.

Rehabilitation counselors assigned to the institutions work closely with the institutions and with local public and private groups and agencies to provide community-related services carried beyond the institutions to achieve successful job-community adjustment for mentally retarded. There has been increasing utilization of community rehabilitation centers and workshops for prevocational evaluation and training. Emphasis is being given to the development of personal-adjustment training, on-the-job training facilities and employment opportunities. This program is making it possible to

move mentally retarded individuals out of the institution into the community and to facilitate their entrance into employment.

Research and Demonstrations

In view of the large number of persons who are retarded, we must develop more precise knowledge and skills for their treatment and training. Research is, therefore, needed in the social, psychological, and vocational aspects of their rehabilitation.

The research and demonstration grant program authorized under the Vocational Rehabilitation legislation of 1954 is a major step forward in meeting this need. Of the funds available for research grants twelve percent has been directed to the program for mental retardation. A total of 76 projects have been approved to date, of which 19 research and 24 demonstration projects are currently in operation.

Among the subjects covered by the research projects are, special workshops, mental retardation aspects of community programs, employer attitudes, vocational training in a rural regional center, a co-ordinative approach utilizing a public school, a vocational rehabilitation agency, and a sheltered workshop, the development of transitional facilities through a halfway house. The remainder are devoted to specialized subjects such as predicting performance; assessing social adjustment based on job, personality and education, developing a social capacity scale, a study of automated instruction, the development of an educational and informative theatrical production, and ascertaining the effects of special training.

In July 1957 the Vocational Rehabilitation Administration began a program of demonstration projects to accelerate vocational rehabilitation services to severely disabled persons and to provide for prompt and wide-spread application of knowledge and experience acquired in the Vocational Rehabilitation Administration research grant program. A total of 38 demonstration projects have been approved to date for the mentally retarded which have been a vital factor in accelerating services for this group.

Training Programs for Rehabilitation of the Mentally Retarded

The Vocational Rehabilitation Administration supports long-term training programs to increase the supply of professional personnel who work with mental retardates. In 1964 the Vocational Rehabilitation Administration is initiating a new program of training grants in this specialized area. Training programs in rehabilitation counseling, social work, psychology, and speech

pathology and audiology have been encouraged to consider expansion of their present training programs to include at least one field instructional unit which would offer an opportunity for supervised clinical practice in the rehabilitation of mentally retarded persons.

In addition the Vocational Rehabilitation Administration supports a program of short-term training institutes, seminars and workshops to increase the technical proficiency of rehabilitation personnel working in this field. To meet the urgent need for raising the level of knowledge and skill of practitioners now working with mental retardates, the Vocational Rehabilitation Administration is planning to establish in Fiscal Year 1964 at least three regional training centers which can hold a series of short-term courses on a year-round basis and develop new teaching materials.

International Rehabilitation Research Program

The Vocational Rehabilitation Administration, Department of Health, Education, and Welfare, of the U. S. Government conducts a program of financial support for the conduct of research abroad in the field of rehabilitation. Proposals for projects may be submitted by qualified governmental and non-governmental, non-profit organizations and institutions abroad. This program is financed through foreign currencies available from the sale abroad of agricultural surpluses. Funds are available to help support projects in the following countries: Burma, India, Indonesia, Israel, Pakistan, Poland, UAR-Egypt and Yugoslavia.

G. SOCIAL SECURITY ADMINISTRATION

The social security program contributes to the maintenance of the mentally retarded through the payment of monthly benefits to those eligible for such benefits. Since January 1957 an estimated 210 million dollars have been paid to mentally retarded adults who qualified for benefits because of their disability. Only a small number receive payment based on their own work record because severely retarded persons have difficulty acquiring the necessary credits for covered work to be insured under the program. The 1956 amendments to the Social Security Act provided for the payment of childhood disability benefits beginning January 1957, to persons who were 18 years old or older who had been severely disabled since childhood. As with children under 18, to qualify for payments an applicant must be the dependent unmarried son or daughter of an old-age or disability insurance beneficiary, or of a deceased insured worker. In addition, he must be "unable

to engage in any substantial gainful activity" because of a severe mental or physical impairment which began before age 18, has been continuous since that time, and is expected to be of long and indefinite duration.

In more than 70 percent of the childhood disability cases, the problem of mental deficiency is a major factor. It is the primary diagnosis in about half of the cases; one in eight are cerebral palsied with mental deficiency; slightly less than one in 10 have epilepsy with mental deficiency. In addition, mental deficiency is often associated with conditions which occur among these disabled persons such as congenital malformations or allergic, endocrine system, metabolic and nutritional diseases (such as myxedema and cretinism). Men and women are about equally represented among the group of disabled child applicants for benefits.

Some indication of the impact of disabling childhood disorders on the family and community can be inferred from the fact that two out of three applicants who qualified for benefits are so limited in their ability to take care of themselves that they are either in institutions, are housebound, or are unable to leave the house without the help of another person or a device of some kind. One-fourth of these applicants were in institutions when they applied for benefits.

Of the estimated 104,000 retarded adults who were receiving childhood disability benefits at the end of 1962, at least half were over age 35, and some over age 65. Since an increasing number of mentally retarded beneficiaries outlive the parents on whom they have always been dependent, the value of social security payments is of particular significance to a parent concerned about what will happen to a mentally retarded child upon the parent's death. If the parents are dead and there are no brothers or sisters, a relative who is either providing care or has demonstrated a continuing interest in the beneficiary's welfare is selected to handle the benefit funds and plan for using them in behalf of the beneficiary. When there is no family left, and no other person is available who has shown an interest in the welfare of the beneficiary, a social welfare agency may be selected. Often a legal guardian is chosen as representative payee, especially if the guardian has a strong interest in the well-being of the beneficiary or if there are other funds to administer.

A representative payee receives social security benefits in trust for the beneficiary and, as a trustee, is held accountable for the way in which he uses the benefits.

The estimated number of mentally retarded persons receiving childhood disability benefits at the end of each year, and the estimated amount of benefits paid to such persons in each year, are shown below for fiscal years 1959-63. Projections for fiscal years 1964-65 are also shown.

Fiscal Year	Estimated number of mentally retarded disabled children receiving benefits, end of year	Estimated amount of benefit payments to mentally retarded children during year
1959	46,000	$18,000,000
1960	67,000	31,000,000
1961	80,000	43,000,000
1962	95,000	51,000,000
1963	112,000	62,000,000
1964 (projected)	127,000	72,000,000
1965 (projected)	142,000	81,000,000

H. FOOD AND DRUG ADMINISTRATION

While the Food and Drug Administration does not have a specific program identified with the problems of mental retardation, many of its activities have an indirect, contributory relationship to the solution of this problem. The role of the Food and Drug Administration in a program to minimize the effects of mental retardation is derived from its authority and responsibility in administering provisions of the Federal Food, Drug, and Cosmetic Act and the Hazardous Substances Labeling Act.

The activities of the Food and Drug Administration significant to the program on mental retardation, as well as other aspects of public health, include enforcement actions to remove from the market foods, drugs, medical devices, and cosmetics that are misrepresented or unsafe, or to require such articles and hazardous substances intended for household use, to be labeled with warnings adequate to protect users and other persons who might be exposed to them; and the preclearance for safety, and in some areas, efficacy of food additives, color additives, agricultural pesticides, and new drugs. It is apparent, therefore, that the Food and Drug Administration has an essential role dealing with a very important section of the environment that may be contributory to problems of mental retardation as well as a role in evaluating for safety and efficacy therapeutic agents that may be employed in the prevention and treatment of such conditions.

Safety of Food Ingredients and Drugs

It is recognized that the prenatal diet, drugs used during the prenatal period, and food and drugs employed in children or to which children may be accidentally exposed, may be significant factors in the occurrence or prevention of mental retardation. There is increasing concern, stimulated by the unfortunate thalidomide disaster in Germany and elsewhere in Europe, with the possible adverse effects of drugs or chemical agents on the fetus as well as the pregnant women exposed to them. In passing on the safety of drugs and of chemicals that get into food, the Food and Drug Administration requires the type of testing generally accepted as necessary by scientific leaders in the field, and evaluates the test results in harmony with the views of present day science. Obviously, as science advances, newer methods of testing will be developed and required, and more precise methods of evaluation will be developed. Obviously, too, some methods of testing and evaluation that were considered quite adequate 10 or 20 years ago, may not now be regarded as fully acceptable because of the advance of knowledge.

Scientists are suggesting the need for more fundamental knowledge about the possible effects of chemicals in food and drugs upon the fetus in situ. The Food and Drug Administration is already requiring, where appropriate, extensive studies of such agents in animals during the various stages of pregnancy as well as appropriate clinical studies in pregnant women. Similar considerations are clearly applicable to the study of drugs employed during the parturition, neonatal, and infancy periods. The effect of such agents on children to whom they may be administered directly emphasizes the importance of appropriate toxicological studies during the developmental stage of young animals, including sucklings.

The above emphasizes that the Food and Drug Administration is acutely aware of the need for developing and requiring the use of techniques for evaluating and assessing the effects of pharmaceuticals on the fetus, infants, and young children. In January 1963, the Agency issued new regulations strengthening control over distributors of new drugs for clinical investigation. Among other things, the new regulations require that the Food and Drug Administration be put on notice and given the full details about the distribution of drugs for investigational use; that the clinical investigations be based on adequate studies on animals to assure safety; that the clinical investigations themselves be properly planned, executed by qualified investigators, and that these

investigators and the Food and Drug Administration be kept fully informed during the progress of the investigations. If an investigation develops evidence that the drug is not safe or is ineffective, the Food and Drug Administration will require a discontinuance.

While the new regulations were first proposed under existing legislation, the Kefauver-Harris Amendments of 1962 (P.L. 87-781), clarified and strengthened the Agency's authority to issue such regulations. Also, under authority of these Amendments, the Secretary of Health, Education, and Welfare can suspend approval of a new drug immediately, with hearing afterward if requested by the manufacturer, if he finds there is an imminent hazard to the public health. Moerover, a previously cleared new drug must be withdrawn from the market after opportunity for hearing whenever it is found, upon reevaluation in the light of new experience or tests, that its safety is not established.

The Food and Drug Administration is cooperating with the Commission on Drug Safety, established by the Pharmaceutical Manufacturers Association, to develop improved procedures for testing adverse effects of drugs, including effects on the fetus and newborn. Food and Drug Administration personnel have attended meetings of the Commission and FDA has been invited to and will continue to participate in the work of the Commission.

Effectiveness of Drugs

The Kefauver-Harris Amendments of 1962, which require preclearance of new drugs for efficacy, furnish a strong basis for refusing an application for a new drug in the absence of convincing evidence of useful effect, especially to justify any risk involved in the administration of a drug to a pregnant or lactating woman. The improved design of studies required to demonstrate the efficacy of drugs, in addition to safety, enhance the quality of data pertinent to the determination of safety.

The Food and Drug Administration has the authority and responsibility to initiate regulatory proceedings against drugs or devices represented to be useful in the prevention, treatment, or amelioration of mental retardation which are not effective for such purposes. There are indications that articles now marketed may have false claims in this area. For example, the National Association for Retarded Children has pointed out that there is a considerable amount of quackery and misrepresentation of articles offered for use in mongolism and other forms of mental retardation; some purport to be based on bona-fide research, and some promoted under the guise of research. When the medical and other scientific and

inspectional staff, and budget permit, FDA plans to initiate a program of review and clinical research to support appropriate legal actions against such products. The Kefauver-Harris Amendments of 1962 do, however, place the burden of proving the usefulness of new drugs of this type on the manufacturer.

Exchange of Scientific Information

Some studies conducted in past years, considered quite adequate by scientific standards then generally accepted, may not have supplied adequate data, measured by present standards, in relation to the safety of new chemicals administered to women as to the effects on the fetus or nursing infant. It is important for the Food and Drug Administration to keep abreast of research, including that sponsored by other constituents of the Department that indicates any possible effect of chemicals used in foods, drugs, cosmetics, household chemicals, or nutritional factors on mental retardation, so that appropriate steps may be taken to insure the continued safety of these commonly used articles.

In recent years a number of steps have been taken to improve the Food and Drug Administration's acquisition, utilization, and dissemination of scientific data and information. For example, in 1960, the Agency established a drug adverse reaction reporting program. At the present time, there are more than 160 participating hospitals in the program.

The Food and Drug Administration recently entered into an agreement with the National Institutes of Health to establish formal relationships which will provide timely flow of potentially relevant medical and scientific information between them. One provision is that the National Institutes of Health will transmit to the Food and Drug Administration periodic reports on adverse reactions to drugs in clinical investigational projects conducted by members of the staff of the National Institutes of Health. Another provision is that the National Institutes of Health will also transmit to the Food and Drug Administration pertinent information generated by the activities of the Psychopharmacology Service Center of the National Institute of Mental Health.

In addition to participation in the science information exchange program conducted by the Science Information Exchange, the Food and Drug Administration proposes to actively pursue the possibility of participating with the World Health Organization and other agencies in an effort to effect an international exchange of medical and scientific information.

III. SUMMARY OF THE REPORT OF THE PRESIDENT'S PANEL ON MENTAL RETARDATION

Leonard W. Mayo*

President Kennedy appointed the Panel on Mental Retardation in October, 1961, with the mandate to prepare a national plan to help meet the many ramifications of this complex problem. In October, 1962, the Panel presented its report, which was subsequently published early in 1963.

The 200-page document includes over 90 recommendations. Mental retardation is shown to be a major national health, social and economic problem affecting some 5.4 million children and adults and involving some 15 to 20 million family members in this country. It estimates the cost of care for those affected at approximately $550 million a year, plus a loss to the Nation of several billion dollars of economic output.

In carrying out its mandate, the Panel employed four main methods of study and inquiry:

. Task forces on specific subjects were appointed to which all members were assigned and advisors were designated to work closely with them.

Public hearings were held in seven major cities, at which public officials concerned with retardation, teachers, representatives of related professions, parents,and others reported on local and State programs and gaps in service and made recommendations.

Panel members and advisors visited England, Sweden, Denmark, Holland, and the Soviet Union to study methods of care and education of the retarded and to become acquainted with research in those countries.

. A considerable body of literature and recent studies were reviewed, and Panel members visited and observed facilities and programs for the retarded in several States.

Highlights of the findings and recommendations in each of the main sections of the report are summarized herewith, with liberal quotations from the text.

*Mr. Mayo was the Chairman of the President's Panel on Mental Retardation. The report itself, A Report of the President's Panel on a Proposed Program for National Action to Combat Mental Retardation, may be purchased from the U.S. Government Printing Office, Washington 25, D.C . , at 65 cents .

Research

In research, the Panel recommends that:

Ten research centers affiliated with universities be established to insure continuing progress in research relevant to mental retardation in both the behavioral and biological sciences and to provide additional facilities for training research personnel.

Biological and behavioral research as presently conducted by individual investigators interested in problems germane to mental retardation be continued and extended.

Population studies be undertaken as a basis for analyses of the characteristics and needs of the mentally retarded population on a national basis.

Governmental activity in developing plans for storage, retrieval, and distribution of scientific data be continued.

Congress provide funds to improve the serious shortage of laboratory space; private foundations are requested to review their policies and to consider grants designed to help alleviate this problem.

Scientists in both the biological and behavioral groups engage in highly specialized conferences to deal in depth with problems underlying retardation.

• A Federal Institute of Learning be established under the general auspices of the Department of Health, Education, and Welfare (HEW).

The research budget for exceptional children in the U.S. Office of Education be augmented in accordance with the provisions of legislation proposed in 1962.

• The National Institutes of Health and private foundations provide more post-doctoral fellowships, awards, and research and career professorships in fields relevant to retardation.

Programs to train research educators, sociologists, and psychologists in mental retardation be initiated.

• Federal support be undertaken for a national program of scholarships for undergraduate college students possessing exceptional scientific ability and for the extension of research activities in undergraduate science departments.

• An extensive program of Federal aid to education be designed to prevent loss to the scientific manpower pool of numbers of gifted youths who fail to enter college for financial reasons.

The graduate fellowship program in the U. S. Office of Education be extended to provide for preparing research specialists in the education of the mentally retarded.

Prevention

To develop a program to prevent mental retardation, the Panel proposes that:

• All possible Federal, State, and local resources be mobilized to provide maternal and infant care in areas where prematurity rates are high and the consequent hazards to infants great.

High priprity be given to making adequate maternal care accessible to the most vulnerable groups in our society, i.e., those who live in seriously deprived areas and who receive little or no medical care before, during, or after pregnancy, and that funds be substantially increased under Title V, Part 1, of the Social Security Act (Maternal and Child Health), to provide for such care.

State departments of health and university medical centers collaborate in the development of multi-state genetic counseling services in order to give young married couples and expectant parents access to such consultation, and that diagnostic laboratories for complex procedures (related to prevention) be developed.

The present review of drug testing procedures be endorsed and the current policy with respect to the distribution of drugs to physicians for field trials without adequate criteria or preparation be investigated.

Laws and/or regulations be enacted by all States (as they have by some) to provide for the registration, inspection, calibration, and licensing of X-ray and fluoroscopic machines and other ionizing radiation sources; and that lifetime radiation records be developed on a demonstration basis in selected areas for the recording and dating of diagnostic and therapeutic X-ray exposure.

Hospitals adopt every known procedure to ensure the prevention of prenatal and neonatal defect and brain damage, and that they apply modern child-rearing knowledge and practices in dealing with infants who may have suffered from trauma resulting from maternal separation.

Programs keyed to the needs of culturally deprived groups in specific areas be organized to reduce the impact of deprivation, which seriously affects the development of children's learning ability. State departments of health, education, and welfare are asked to join in promoting local community programs of prevention to offset the adverse effects of destructive community and neighborhood environment.

• A domestic Peace Corps be established to help meet the personnel shortage and special needs in deprived areas and to give Americans an opportunity to serve their own and other communities effectively.

Clinical and Medical Services

In this area, the Panel recommends that:

Inclusive programs of clinical services and medical care be made available to the retarded in or close to the communities where they reside. State and local health departments are urged to extend their services to children in the lower socioeconomic groups and to utilize procedures for the early detection of abnormalities.

. Every related agency in the community include the mentally retarded and their families among those served.

. State governments lift all present restrictions preventing retarded children with physical handicaps from receiving services available to all other physically handicapped children in the state crippled children's program; to make this possible, an increase of Federal funds to the crippled children's program (Title V, Part 2, Social Security Act) earmarked for the mentally retarded is recommended.

. Additional clinics for the retarded be established wherever needed to provide services for additional patients and opportunities for training personnel.

To plan these program services more effectively, it is essential that adequately staffed biostatictical sections at the State and Federal levels be developed; that there be improved record-keeping and data processing systems; and that community and epidemiological studies be designed and carried out.

Education

The Panel recommends that specialized educational services be extended and improved to provide appropriate educational opportunities for all retarded children.

This assistance, the report states, can be provided through a Federal Extension and Improvement (E & I) program, administered to assure the use of available funds for expansion or development of new services rather than for existing programs at current levels. Any proposal to extend or improve special educational services for retarded children should be considered for an E & I grant, and evaluated on a competitive basis. Universities, State departments of public education, local and county school systems, and other educational agencies should all be eligible to submit such applications.

At present, States usually assist local school systems by reimbursing local districts for a portion of the excess cost of providing special education services; however, the amount available for this purpose in the budget of the State departments of public instruction is usually limited. Any substantial extension of the specialized educational services for retarded children will require assistance and stimulation from sources beyond local and State school systems.

It is essential that adequate opportunities for learning intellectual and social skills be provided such children through formal pre-school education programs designed to facilitate adequate development of skills such as speech and language, abstract reasoning, problem solving, etc., and to effect desirable patterns of motivation and social values.

Most retarded children live in city slums or depressed rural environments. Research suggests that deprivation of adequate opportunities for learning contributes to and complicates the degree of mental retardation present in these children. Formal pre-school programs of increased learning opportunities may accelerate development of these children. Yet there are exceedingly few such programs now available to enrich the experiences of deprived pre-school children.

The Panel suggests that instructional materials centers be established in the special education units of State departments of public instruction or in university departments of education, to provide teachers and other education personnel with competent consultation on instructional materials and to distribute and loan such materials for the mentally retarded.

The Panel strongly recommends that specialized classroom services be extended to provide for all mentally retarded children. Additional special class services are required for all age levels for both educable and trainable retarded children. However, it is doubtful that comprehensive programs will be developed in most communities without the additional incentive of external financial support, provided by the Eederal government through the E & I program.

The Panel suggests that services of educational diagnosis and evaluation be extended to all school systems to provide for early detection of school learning disabilities and to enable appropriate school placement.

The U. S. Office of Education is urged to increase its administrative leadership and staff of the program for exceptional children to a level commensurate with the importance of exceptional children in the Nation's program of public education.

The Panel underlines the need for an additional 55,000 trained teachers of the mentally retarded. If fully implemented, the Panel states, the following program would add 6,000 new teachers each year to the pool of skilled teaching specialists in retardation:

Government and private foundations should provide annually $9 million to be awarded to universities to provide scholarships and to support the training program.

Each State should appropriate an amount equal to at least 5 percent of its annual budget for special education for training grants to experienced teachers wishing to specialize in mental retardation. It is recommended that the government match the funds allocated by the State departments of public instruction.

. Local school systems (by granting leave-of-absence with pay), community agencies, and civic organizations should contribute to the education of those who will teach their retarded children. Concerted effort on the part of these local groups should enable them to achieve the reasonable objective of a contribution of $3 million annually--an average of $1,000 from each of the 3,000 local school systems now operating programs for the retarded.

The Panel also urged that methods be developed to provide for more effective training and use of personnel for teaching retarded pupils. Research and demonstration projects should be initiated to determine staffing patterns to conserve teaching manpower.

It is recommended that the Fellowship Program under Public Law 85-926 be extended to include provisions for preparing research specialists. Funds are currently available under Public Law 85-926 for the preparation of administrators, supervisors, and college and university instructors in special education, excluding, however, persons who wish to prepare for research careers.

Vocational Rehabilitation

Recent progress in vocational rehabilitation must be tempered by recognition that only about 3,500 retarded persons were reported as rehabilitated under the Federal-State program over the past year. This figure is negligible when compared with even the most conservative estimate of the retarded who could benefit from this service. The Vocational Rehabilitation Administration (VRA) is deeply interested, however, and has been active for some time in developing this aspect of its program.

If the present need were being met in full:

75,000 retarded youth in their final year of schooling would be receiving services such as prevocational counseling and evaluation, and job placement.

19,000 retarded youth would be receiving post-school preparation for competitive work in an employment training center or comparable facility.

120,000 moderately retarded adults would be receiving services and working in workshops or similar places.

75,000 severely retarded adults living in communities would be receiving services in facilities providing training in basic living skills, recreation, etc.

In the future the demand for vocational rehabilitation services will increase. Opportunities for jobs traditionally identified with the retarded are on the decrease. Competition for these jobs is becoming keener as unskilled workers, displaced by automation, seek jobs once held almost exclusively by the retarded. Adverse effects of recessions are likely to be felt more acutely by mentally retarded than by nonretarded workers.

The Panel recommends that vocational rehabilitation services for retarded youth and adults be expanded through earmarking of Federal funds under the Federal-State program of vocational rehabilitation.

If the productive capacities of the Nation's mentally retarded are to be realized, every retarded youth must have the following services available to him prior to, during, and after termination of his formal education: vocational evaluation, counseling, and job placement; training courses in appropriate vocational areas; joint school-work experience programs cosponsored by schools and vocational rehabilitation agencies;

clearly defined and adequately supervised programs for on-the-job training; employment training facilities; sheltered workshops; vocational rehabilitation services in conjunction with residential institutions; and counseling services to parents.

The report also calls for a Federal program to provide financial support for constructing, equipping, and initially staffing sheltered workshops and other rehabilitation facilities, through VEA. Comparable programs for other types of facilities exist in other agencies of government and have, in general, proven highly effective. The Hill-Burton Act is the legal basis for one such program.

The Panel also suggests that VRA be given responsibility for leadership in planning, developing, coordinating, and supervising a system of sheltered work programs. The programs themselves should be operated by voluntary and public agencies with assistance from State and Federal rehabilitation agencies; they should be developed in stages with small-scale pilot projects serving as a base for expansion. Hopefully, this would lead eventually to the establishment of sheltered work programs in every major urban community in the nation.

Residential Care

In this area, the report recommends that:

. Every residential facility be: an integral part of a state-wide program for the retarded and closely related to the community; basically therapeutic or educational, and closely linked to appropriate community medical, education, and welfare programs; operated under flexible admission and release policies, similar to those of a hospital or school; and equipped to undertake research in some form as a part of its program.

. Admission to residential care be reserved for those whose specific needs can best be met via such a facility.

. Appropriate authorities in every State determine the status of all mentally retarded patients in state hospitals for the mentally ill at regular intervals and remove those who can profit by care designed primarily for the retarded.

. Upon presentation of plans meeting criteria established by the Secretary of Health, Education, and Welfare, matching grants be provided to the states for institutions to facilitate planning and development, recruiting and training personnel, and research*

. No institution for the retarded accommodate more than 1,000, and units now being planned for future construction not exceed 500 beds.

The Panel approaches this problem from the point of view that, with the development of new alternatives in treatment, it should now be possible to overcome certain rigidities of the law in the interest of giving the retarded individual the benefit of modern knowledge. The Panel suggests that mandatory legal requirements be minimized wherever voluntary compliance can be obtained. The question of formal legal intervention is regarded as a residual resource which should not be utilized where social or personal interests can be adequately served through other means.

This section of the report, nonetheless, points out that the law must protect the rights of the retarded. Like other citizens they must be assumed to have full human and legal rights and privileges. The mere fact of mental retardation should never be considered in and of itself sufficient to remove their rights.

The Panel recommends specifically that:

Each State establish or designate a protective agency for the retarded, to provide for consultation for them and their families and for employers, guardians, and others concerned with their social and legal problems, and to supervise the private guardians of retarded persons.

Superintendents of residential facilities for the retarded accept as "voluntary" admissions only those adults who are capable of making such a decision.

No limited guardian of a mentally retarded adult be able to commit his ward to an institution without a judicial hearing unless the court order appointing the guardian gave him such discretion--in which case he should inform the court of his ward's **change of residence.**

. **Since State and local school authorities are constitutionally obliged not only to provide education for educable mentally retarded children, but also to provide training facilities and personnel for trainable mentally retarded children, these authorities re-examine the extent to which they provide education and training.for mentally retarded children.**

The court in deciding whether a confession to a crime was coerced--and hence inadmissible at trial— consider all the relevant circumstances, and assess whether the mentally retarded defendant's state of mind was such **as** to preclude **the** confessions being **voluntary** in any meaningful sense; and that caution be taken against giving any probative weight to the fact that a mentally retarded defendant remained silent when accused of a crime.

The mentally retarded individual who exhibits persistent uncontrolled behavior threatening the well-being of others requires special attention, which should be a subject of special study, since he is unsuited both to the typical prison and to most residential facilities for the retarded.

Local, State, and Federal Organization

Concerning local, State, and Federal organization and relationships, the Panel recommends that:

There be available to every retarded person either in his community or at a reasonable distance: a person, committee, or organization to whom parents and others can turn for advice and counsel; life counseling services; and a sufficient number of qualified professional and informed nonprofessional people willing to assist in developing a program for an individual, and in developing a local or State program.

Every health, education, and welfare agency provide a person, office, division, or other appropriate instrumentality to organize and be responsible for those agency resources or services relevant to mental retardation; and those agencies dealing with the retarded at a local, community, or State level establish committees with high level representation to facilitate communication and cooperation.

. A formal planning and coordinating body made up of all appropriate segments of the community be established with the mandate to develop and Coordinate programs for the retarded.

The Federal Government take leadership in developing model community programs for the management of mental retardation in each of the Department of Health, Education, and Welfare regions. The objectives of such models would be: to develop concrete examples and demonstrations of what is believed to be the best possible care for the retarded on a coordinated basis; and to provide teaching resources in which present and future administrative and professional personnel could receive higher quality training.

The Secretary of Health, Education, and Welfare should be authorized to make grants to states for comprehensive planning in mental retardation.

IV. THE MENTAL RETARDATION PORTION OF THE PRESIDENT'S SPECIAL MESSAGE OF FEBRUARY 5, 1963

A National Program to Combat Mental Retardation

Mental retardation stems from many causes. It can result from mongolism, birth injury or infection, or any of a host of conditions that cause a faulty or arrested development of intelligence to such an extent that the individual's ability to learn and to adapt to the demands of society is impaired. Once the damage is done, lifetime incapacity is likely. With early detection, suitable care and training, however, a significant improvement in social ability and in personal adjustment and achievement can be achieved.

The care and treatment of mental retardation, and research into its causes and cure, have--as in the case of mental illness—been too long neglected. Mental retardation ranks as a major national health, social and economic problem. It strikes our most precious asset—our children. It disables 10 times as many people as diabetes, 20 times as many as tuberculosis, 25 times as many as muscular dystrophy, and 600 times as many as infantile paralysis. About 400,000 children are so retarded they require constant care or supervision; more than 200,000 of these are in residential institutions. There are between 5 and 6 million mentally retarded children and adults--an estimated 3 percent of the population. Yet, despite these grim statistics, and despite an admirable effort by private voluntary associations, until a decade ago not a single State health department offered any special community services for the mentally retarded or their families.

States and local communities spend $300 million a year for residential treatment of the mentally retarded, and another $250 million for special education, welfare, rehabilitation, and other benefits and services. The Federal Government will this year obligate $37 million for research, training and special services for the retarded and about three times as much for their income maintenance. But these efforts are fragmented and inadequate.

Mental retardation strikes children without regard for class, creed, or economic level. Each year sees an estimated 126,000 new cases. But it hits more often—and harder—at the underprivileged and the poor; and most often of all—and most severely—in city tenements and rural slums where there are heavy concentrations of families with poor education and low income.

There are very significant variations in the impact of the incidence of mental retardation. Draft rejections for mental deficiency during World War II were 14 times as heavy in States with low incomes as in others. In some slum areas 10 to 30 percent of the school-age children are mentally retarded, while in the very same cities more prosperous neighborhoods have only 1 or 2 percent retarded.

There is every reason to believe that we stand on the threshold of major advances in this field. Medical knowledge can now identify precise causes of retardation in 15 to 25 percent of the cases. This itself is a major advance. Those identified are usually cases in which there are severe organic injuries or gross brain damage from disease. Severe cases of mental retardation of this type are naturally more evenly spread throughout the population than mild retardation; but even here poor families suffer disproportionately. In most of the mild cases, although specific physical and neurological defects are usually not diagnosable with present biomedical techniques, research is rapidly adding to our knowledge of specific causes: German measles during the first 3 months of pregnancy, Rh blood factor incompatibility in newborn infants, lead poisoning of infants, faulty body chemistry in such diseases as phenylketonuria and galactosemia, and many others.

Many of the specific causes of mental retardation are still obscure. Socioeconomic and medical evidence gathered by a panel which I appointed in 1961, however, shows a major causative role for adverse social, economic, and cultural factors. Families who are deprived of the basic necessities of life, opportunity, and motivation have a high proportion of the Nation's retarded children. Unfavorable health factors clearly play a major role. Lack of prenatal and postnatal health care, in particular, leads to the birth of brain-damaged children or to an inadequate physical and neurological development. Areas of high infant mortality are often the same areas with a high incidence of mental retardation. Studies have shown that women lacking prenatal care have a much higher likelihood of having mentally retarded children. Deprivation of a child's opportunities for learning slows development in slum and distressed areas. Genetic, hereditary, and other biomedical factors also play a major part in the causes of mental retardation.

The American people, acting through their Government where necessary, have an obligation to prevent mental retardation, whenever possible, and to ameliorate it when it is present. I am, therefore, recommending action on a comprehensive program to attack this affliction. The only feasible program with a hope for success must not only aim at the specific causes and the control of mental retardation but seek solutions to the broader problems of our society with which mental retardation is so intimately related.

The panel which I appointed reported that, with present knowledge, at least half and hopefully more than half, of all mental retardation cases can be prevented through this kind of "broad spectrum" attack--aimed at both tho spociflc causes which medical science has identified, and at Che brooder adverse social, economic, and cultural conditions with which Incidence of mental retardation is so heavily correlated. At the same time research must go ahead in all these categories, calling upon the best efforts of many types of scientists, from the geneticist to the sociologist.

The fact that mental retardation ordinarily exists from birth or early childhood, the highly specialized medical, psychological-, and educational evaluations which are required, and the complex and unique social, educational, and vocational lifetime needs of the retarded individual, all require that there be developed a comprehensive approach to this specific problem.

1. Prevention

Prevention should be given the highest priority in this effort. Our general health, education, welfare, and urban renewal programs will make a major contribution in overcoming adverse social and economic conditions. More adequate medical care, nutrition, housing, and educational opportunities can reduce mental retardation to the low incidence which has been achieved in some other nations. The recommendations for strengthening American education which I have made to the Congress in my message on education will contribute toward this objective as will the proposals contained in my forthcoming health message.

New programs for comprehensive maternity and infant care and for the improvement of our educational services are also needed. Particular attention should be directed toward the development of such services for slum and distressed areas. Among expectant mothers who do not receive prenatal care, more than 20 percent of all births are premature--two or three times the rate of prematurity among those who do receive adequate care. Premature infants have two or three times as many phycical defects and 50 percent more illnesses than full-term infants. The smallest premature babies are 10 times more likely to be mentally retarded.

All of these statistics point to the direct relationship between lack of prenatal care and mental retardation. Poverty and medical indigency are at the root of most of this problem. An estimated 35 percent of the mothers in cities over 100,000 population are medically indigent. In 138 large cities of the country an estimated 455,000 women each year lack resources to pay for adequate health care during pregnancy and following birth. Between

20 and 60 percent of the mothers receiving care in public hospitals in some large cities receive inadequate or no prenatal care—and mental retardation is more prevalent in these areas.

Our existing State and Federal child health programs, though playing a useful and necessary role, do not provide the needed comprehensive care for this high-risk group. To enable the States and localities to more ahead more rapidly in combating mental retardation and other childhood disabilities through the new therapeutic measures being developed by medical sicence, I am recommending:

(a) A new 5-year program of project grants to stimulate State and local health departments to plan, initiate, and develop comprehensive maternity and child health care service programs, helping primarily families in this high-risk group who are otherwise unable to pay for needed medical care. These grants would be used to provide medical care, hospital care, and additional nursing services, and to expand the number of prenatal clinics. Prenatal and post partum care would be more accessible to mothers. I recommend that the initial appropriation for this purpose be $5 million, allocated on a project basis, rising to an annual appropriation of $30 million by the third year.

(b) Doubling the existing $25 million annual authorization for Federal grants for maternal and child health, a significant portion of which will be used for the mentally retarded.

(c) Doubling over a period of 7 years the present $25 million annual authorization for Federal grants for crippled children's services.

Cultural and educational deprivation resulting in mental retardation can also be prevented. Studies have demonstrated that large numbers of children in urban and rural slums, including preschool children, lack the stimulus necessary for proper development in their intelligence. Even when there is no organic impairment, prolonged neglect and a lack of stimulus and opportunity for learning can result in the failure of young minds to develop. Other studies have shown that, if proper opportunities for learning are provided early enough, many of these deprived children can and will learn and achieve as much as children from more favored neighborhoods. This self-perpetuating intellectual blight should not be allowed to continue.

In my recent message on education, I recommended that at least 10 percent of the proposed aid for elementary and secondary education be committed by the States to special project grants

designed to stimulate and make possible the improvement of educational opportunities particularly in slum and distressed areas, both urban and rural. I again urge special consideration by the Congress for this proposal. It will not only help improve educational quality and provide equal opportunity in areas which need assistance; it will also serve humanity by helping prevent mental retardation among the children in such culturally deprived areas.

2. Community Services

As in the case of mental illnesses, there is also a desperate need for community facilities and services for the mentally retarded. We must move from the outmoded use of distant custodial institutions to the concept of community-centered agencies that will provide a coordinated range of timely diagnostic, health, educational, training, rehabilitation, employment, welfare, and legal protection services. For those retarded children or adults who cannot be maintained at home by their own families, a new pattern of institutional services is needed.

The key to the development of this comprehensive new approach toward services for the mentally retarded is twofold. First, there must be public understanding and community planning to meet all problems. Second, there must be made available a continuum of services covering the entire range of needs. States and communities need to appraise their needs and resources, review current programs, and undertake preliminary actions leading to comprehensive State and community approaches to these objectives. To stimulate public awareness and the development of comprehensive plans, I recommend legislation to establsih a program of special project grants to the States for financing State reviews of needs and programs in the field of mental retardation.

A total of $2 million is recommended for this purpose. Grants will be awarded on a selective basis to State agencies presenting acceptable proposals for this broad interdisciplinary planning activity. The purpose of these grants is to provide for every State an opportunity to begin to develop a comprehensive integrated program to meet all the needs of the retarded. Additional support for planning health-related facilities and services will be available from the expanding planning grant program for the Public Health Service which I will recommend in my forthcoming message on health.

To assist the States and local communities to construct the facilities which these surveys justify and plan, I recommend that the Congress authorize matching grants for the construction of public and other nonprofit facilities, including centers for the

comprehensive treatment, training, and care of the mentally retarded. Every community should be encouraged to include provision for meeting the health requirements of retarded individuals in planning its broader health services and facilities.

Because care of the mentally retarded has traditionally been isolated from centers of medical and nursing education, it is particularly important to develop facilities which will increase the role of highly qualified universities in the improvement and provision of services and the training of specialized personnel. Among the various types of facilities for which grants would be authorized, the legislation I am proposing will permit grants of Federal funds for the construction of facilities for (1) inpatient clinical units as an integral part of university-associated hospitals in which specialists on mental retardation would serve; (2) outpatient diagnostic, evaluation, and treatment clinics associated with such hospitals, including facilities for special training; and (3) satellite clinics in outlying cities and counties for provision of services to the retarded through existing State and local community programs, including those financed by the Children's Bureau, in which universities will participate. Grants of $5 million a year will be provided for these purposes within the total authorizations for facilities in 1965 and this will be increased to $10 million in subsequent years.

Such clinical and teaching facilities will provide superior care of the retarded and will also augment teaching and training facilities for specialists in mental retardation, including physicians, nurses, psychologists, social workers, and speech and other therapists. Funds for operation of such facilities would come from State, local, and private sources. Other existing or proposed programs of the Children's Bureau, of the Public Health Service, of the Office of Education, and of the Department of Labor can provide additional resources for demonstration purposes and for training personnel.

A full-scale attack on mental retardation also requires an expansion of special education, training, and rehabilitation services. Largely due to the lack of qualified teachers, college instructors, directors, and supervisors, only about one-fourth of the 1,250,000 retarded children of school age now have access to special education. During the past 4 years, with Federal support, there has been some improvement in the training of leadership personnel. However, teachers of handicapped children, including the mentally retarded, are still woefully insufficient in number and training. As I pointed out in the message on education, legislation is needed to increase the output of college instructors and classroom teachers for handicapped children.

I am asking the Office of Education to place a new emphasis on research in the learning process, expedite the application of research findings to teaching methods for the mentally retarded, support .studies on improvement of curriculums, develop teaching aids, and stimulate the training of special teachers.

Vocational training, youth employment, and vocational rehabilitation programs can all help release the untapped potentialities of mentally retarded individuals. This requires expansion and improvement of our vocational education programs, as already recommended; and, in a subsequent message, I will present proposals for needed youth employment programs.

Currently rehabilitation services can only be provided to disabled individuals for whom, at the outset, a vocational potential can be definitely established. This requirement frequently excludes the mentally retarded from the vocational rehabilitation program. I recommend legislation to permit rehabilitation services to be provided to a mentally retarded person for up to 18 months, to determine whether he has sufficient potential to be rehabilitated vocationally. I also recommend legislation establishing a new program to help public and private nonprofit organizations to construct, equip, and staff rehabilitation facilities and workshops, making particular provision for the mentally retarded.

State institutions for the mentally retarded are badly underfinanced, understaffed, and overcrowded. The standard of care is in most instances so grossly deficient as to shock the conscience of all who see them.

I recommend the appropriation under existing law of project grants to State institutions for the mentally retarded, with an initial appropriation of $5 million to be increased in subsequent years to a level of at least $10 million. Such grants would be awarded, upon presentation of a plan meeting''criteria established by the Secretary of Health, Education, and Welfare, to State institutions undertaking to upgrade the quality of residential services through demonstration, research, and pilot projects designed to improve the quality of care in such institutions and to provide impetus to inservice training and the education of professional personnel.

3. Research

Our single greatest challenge in this area is still the discovery of the causes and treatment of mental retardation. To do this we must expand our resources for the pursuit and application of scientific knowledge related to this problem. This will require the training of medical, behavioral, and other

professional specialists to staff a growing effort. The new National Institute of Child Health and Human Development which was authorized by the 87th Congress is already embarked on this task.

To provide an additional focus for research into the complex mysteries of mental retardation, I recommend legislation to authorize the establishment of centers for research in human development, including the training of scientific personnel. Funds for 3 such centers are included in the 1964 budget; ultimately 10 centers for clinical, laboratory, behavioral, and social science research should be established. The importance of these problems justifies the talents of our best minds. No single discipline or science holds the answer. These centers must, therefore, be established on an interdisciplinary basis.

Similarly, in order to foster the further development of new techniques for the improvement of child health, I am also recommending new research authority to the Children's Bureau for research in maternal and child health and crippled children's services.

But, once again, the shortage of professional manpower seriously compromises both research and service efforts. The insufficient numbers of medical and nursing training centers now available too often lack a clinical focus on the problems of mental retardation comparable to the psychiatric teaching services relating to care of the mentally ill.

APPENDIX A

The Difference Between Mental Illness and Mental Retardation

Mental retardation and mental illness in. most instances are separate health problems. It appears that the greater part of mental illness manifests itself in young and older adults after a period of relatively normal development; mental retardation is usually a condition resulting from developmental abnormalities that start prenatally and manifest themselves during the newborn or early childhood period. Mental illness includes problems of personality and behavioral disorders especially involving the emotions; mental retardation includes intellectual deficits frequently present at birth or in early childhood. There is always a deficit in intellectual function in mental retardation; but mental illness may or may not involve such a defect. If there is such an involvement, it is not usually of the nature and degree found in mental retardation.

These two problems are related in that they frequently occur in the same patient and frequently involve some of the same kinds of professional skills to diagnose or assist the patient. On the other hand, each problem does occur independently of the other and adequate professional skill to deal with one problem does not assure competency to deal with the other. The ability to clearly distinguish between these problems in a given patient and deal with each appropriately is often the crux of good care.

APPENDIX B

Summary of Selected Financial Assistance Programs in Mental Retardation of the Department of Health, Education, and Welfare

Bureau of State Services			
Community Health Services Grants Program	To develop new and improved methods of providing out-of-hospital community health services, particularly for the chronically ill, through studies, experiments, and demonstrations.	State and local public agencies, nonprofit private agencies and organizations.	Office of Grants Management, Bureau of State Services, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.
Hospital and Medical Facilities Research and Demonstration Program	Grants are made for research and demonstration projects relating to the development, use and coordination of hospital services and facilities and for experimental and demonstration construction or equipment projects at hospitals and other medical facilities.	Funds are available to States, political subdivisions, universities, hospitals, and other public and private nonprofit institutions and organizations.	Division of Hospital and Medical Facilities, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.
Neurological and Sensory Disease Service Project Grants	Grants are available to stimulate the development, expansion, or improvement of community activities to identify and deal with problems of neurological, visual, and communicative disorders such as mental retardation, epilepsy, glaucoma, hearing disability, etc.	State or local public agencies, nonprofit private agencies, institutions, or organizations.	Neurological and Sensory Disease Service Program Division of Chronic Diseases, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.

Summary of Selected Financial Assistance Programs in Mental Retardation

I. RESEARCH, DEMONSTRATION, AND PROJECT GRANTS

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
PUBLIC HEALTH SERVICE			
Bureau of State Services			
Community Health Services Grants Program	To develop new and improved methods of providing out-of-hospital community health services, particularly for the chronically ill, through studies, experiments, and demonstrations.	State and local public agencies, nonprofit private agencies and organizations.	Office of Grants Management, Bureau of State Services, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.
Hospital and Medical Facilities Research and Demonstration Program	Grants are made for research and demonstration projects relating to the development, use and coordination of hospital services and facilities and for experimental and demonstration construction or equipment projects at hospitals and other medical facilities.	Funds are available to States, political subdivisions, universities, hospitals, and other public and private nonprofit institutions and organizations.	Division of Hospital and Medical Facilities, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.
Neurological and Sensory Disease Service Project Grants	Grants are available to stimulate the development, expansion, or improvement of community activities to identify and deal with problems of neurological, visual, and communicative disorders such as mental retardation, epilepsy, glaucoma, hearing disability, etc.	State or local public agencies, nonprofit private agencies, institutions, or organizations.	Neurological and Sensory Disease Service Program Division of Chronic Diseases, Public Health Service, U.S. Department of Health, Education, and Welfare Washington 25, D.C.

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
National Institutes of Health			
National Institute of Mental Health Project Grants	To support experiments, demonstrations, and studies designed to improve methods of care, treatment, and rehabilitation of the mentally ill and mentally retarded, to develop methods for prevention of mental illness and of mental retardation, and to initiate or strengthen programs to promote better mental health.	State or local agencies, laboratories, and other public or non-profit agencies and institutions, or individuals.	Mental Health Project Grants Section, Research Utilization Branch, National Institute of Mental Health, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland
National Institute of Mental Health Research Grants	To support research on any problem related to mental health or mental illness; for clinical and applied studies as well as for basic research in related biological and behavioral sciences; for investigations of disorders affecting children and adults.	Independent investigators in medical schools universities and other non-Federal research centers; to public and private mental health agencies and institutions.	Chief, Research Grants and Fellowship Branch, National Institute of Mental Health, National Institutes of Health, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland
National Institute of Neurological Diseases and Blindness Research Grants	To stimulate and support scientific investigations in the neurological, sensory, communicative, and related fields.	Institutions on behalf of qualified investigators.	Research Grants Branch, Extramural Programs, National Institute of Neurological Diseases and Blindness, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
National Institutes of Health (cont'd)			
National Institute of Child Health and Human Development Research Grants	To stimulate and support scientific investigations in child health and human development, including special health problems and requirements and in the basic sciences relating to processes of human growth and development.	Scientific Investigators	Division of Research Grants, National Institutes of Health, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland
WELFARE ADMINISTRATION			
Children's Bureau			
Maternal and Child Health and Crippled Children's Service Demonstration Projects	To initiate services not now included in the plan of the State Crippled Children's Program or the State Health Department and to demonstrate improved methods for providing services for mentally retarded children.	State Health Departments	Regional Medical Director, Children's Bureau
Maternal and Child Health and Crippled Children's Study Projects	To study phases of the Maternal and Child Health and Crippled Children's Services for the mentally retarded and the application of public health methods to problems of this group.	State Health Departments Institutions of Higher Learning	State Health Departments: Regional Medical Director, Children's Bureau Institutions of Higher Learning: The Director, Division of Health Services, Children's Bureau, U.S. Department of Health, Education, and Welfare Washington 25, D. C.

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
Children's Bureau (cont'd)			
Child Welfare Research and Demonstration Grants	To provide support for (1) special research and demonstration projects in the field of child welfare which are of regional or national significance, and (2) special projects for the demonstration of new methods or facilities which show promise of substantial contribution to the advancement of child welfare.	Public or other non-profit agencies and organizations	Children's Bureau, Welfare Administration, U.S. Department of Health, Education, and Welfare Washington 25, D.C.
Bureau of Family Services			
Demonstration projects in public assistance	To encourage State and local public assistance agencies to experiment with new methods and approaches to administering their programs, training staff, and providing services (including work and community training programs) so that needy families will be strengthened and their efforts to achieve self-support or self-care will be enhanced.	Applications may only be submitted by State public welfare agencies. Under the general supervision of the State agency, projects may be designed and carried out by local public welfare agencies.	Office of the Director, Bureau of Family Services, Welfare Administration, U.S. Department of Health, Education, and Welfare Washington 25, D.C. or Regional Office

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
OFFICE OF EDUCATION			
Cooperative Research Program	To develop new knowledge about major problems in education or to devise new applications of existing knowledge in solving such problems.	Universities and colleges and State educational agencies (and local school systems through State educational agencies)	Cooperative Research Branch, Office of Education, U.S. Department of Health, Education, and Welfare 400 Maryland Avenue,S.W. Washington 25, D.C.
New Educational Media Program (National Defense Education Act)	To (1) conduct, assist, and foster research and experimentation in the educational uses of new communications media, and (2) disseminate information concerning these new media to State and local public school systems and to colleges and universities.	Public or nonprofit agencies, organizations, and individuals	Director, Educational Media Branch Office of Education U.S. Department of Health, Education, and Welfare 400 Maryland Avenue, S.W. Washington 25, D.C.
VOCATIONAL REHABILITATION ADMINISTRATION			
Research and Demonstration Grants	To carry on research projects or demonstrate special facilities and services which hold promise of making a substantial contribution to the solution of vocational rehabilitation problems.	States and other public and non-profit organizations.	Commissioner of the Vocational Rehabilitation Administration U.S. Department of Health, Education, and Welfare Washington 25, D.C.

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
VOCATIONAL REHABILITATION ADMINISTRATION (cont'd)			
International Grants	For the purpose of assisting research projects abroad which (1) will lead to the development of new knowledge and techniques for eliminating or reducing the handicapping effects of disability or (2) will provide new application of existing knowledge and techniques to rehabilitation problems. Projects should produce results of mutual benefit to rehabilitation in the United States and in the country in which the project is carried out.	Information regarding eligible applicants may be secured from the Commissioner of the Vocational Rehabilitation Administration	Commissioner of the Vocational Rehabilitation Administration, U.S. Department of Health, Education, and Welfare Washington 25, D.C.

II. TRAINING GRANTS

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
PUBLIC HEALTH SERVICE Bureau of State Services Neurological and Sensory Disease Service Program Training Projects.	Grants are available for the training of health personnel to provide services in the neurological and sensory disease area, including undergraduate, graduate and postgraduate training in regular academic programs and short courses, seminars, institutes, etc.. This includes training of physicians and other health personnel working in programs under medical direction, such as nurses, therapists, etc.	Institutions in the United States having accredited service training programs in the area of neurological and sensory diseases for health personnel or to institutions seeking the establishment of such programs. Grants will also be available to support community service training programs under the direction of recognized professional organizations.	Neurological and Sensory Disease Service Program Division of Chronic Diseases, Department of Health, Education and Welfare, Washington 25, D.C.
National Institutes of Health National Institute of Mental Health	Grants of funds are made to institutions to assist in the establishment, expansion, and improvement of training programs in the mental health specialty fields. These grants providing training in the various fields of specialization usually include training in the area of mental retardation. Grants are also made to some institutions for the specific purpose of providing training in depth in the area of mental retardation.	Grants are made to eligible training institutions in the mental health field.	Chief, Training Branch, National Institute of Mental Health, U.S. Department of Health, Education and Welfare Bethesda 14, Maryland

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
National Institutes of Health (cont'd)			
National Institute of Neurological Diseases and Blindness	To develop teacher-investigators, scientist-physicians, and community health personnel in the neurological, sensory, communicative, and related fields. The training programs consist of (1)graduate training grants and developmental training grants awarded to institutions, such as hospitals, schools of medicine and schools of osteopathy, (2) postdoctoral fellowships and special fellowships awarded to individuals, and (3) research career development awards and research career awards, also for individuals.	Grants may be awarded to qualified institutions and individuals.	Training Grants and Awards Branch Extramural Programs, National Institute of Neurological Diseases and Blindness, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland
National Institute of Child Health and Human Development.	Training activities are supported through two different mechanisms--training grants awarded to institutions for the support of training for groups of individuals, and fellowships and special awards made directly to individuals. Training Grants are made to establish new training programs in areas where supply of fully trained personnel is critically short, and to expand existing training programs. Training programs for individuals , consisting of postdoctoral and special fellowships, research career development awards are made to support research training of qualified scholars for research and academic careers in basic and clinical sciences related to child health and human development and thereby increase the number of trained research investigators and teachers in the field.	Grants may be awarded to qualified institutions and individuals.	Institutions: National Institute of Child Health and Human Development, National Institutes of Health, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland Individuals: Career Development Review Branch, Division of Research Grants, National Institutes of Health, U.S. Department of Health, Education, and Welfare Bethesda 14, Maryland

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
WELFARE ADMINISTRATION			
Children's Bureau			
Maternal and Child Health Training Projects	To meet the training needs of professional personnel related to the development of health services for mentally retarded children.	State Health Departments	Regional Medical Director, Children's Bureau.
		Institutions of Higher Learning.	The Director, Division of Health Services, Children's Bureau, U.S. Department of Health, Education and Welfare, Washington 25, D.C.
Child Welfare Special Projects and Traineeships	To provide a pool of trained personnel and to help institutions of higher learning to train a greater number of persons for work in child welfare by expanding and strengthening their educational resources.	Public or other non-profit institutions of higher learning.	Children's Bureau Welfare Administration U.S. Department of Health, Education, and Welfare Washington 25, D.C.

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
OFFICE OF EDUCATION			
Expansion of teaching in the Education of the Mentally Retarded (Fellowship Program)	To prepare promising persons for positions as: (1) instructors and directors of college or university programs for the training of teachers of the mentally retarded or (2) supervisors and directors of educational programs for mentally retarded children in State and local school systems.	Section (1): Public or non-profit institutions of higher learning. Section (2): State educational agencies for graduate training in the education of the mentally retarded.	Education for Exceptional Children Branch, Office of Education, U.S. Department of Health, Education, and Welfare 400 Maryland Avenue, S.W. Washington 25, D.C.
VOCATIONAL REHABILITATION ADMINISTRATION			
Training Grants	Grants for the expansion or improvement of training programs in the professional fields which contribute to the rehabilitation of disabled people. Grants are also made for short term intensive training and instruction in technical matters relating to vocational rehabilitation and for research fellowships.	Schools, universities, and other public and non-profit agencies.	Commissioner of the Vocational Rehabilitation Administration U.S. Department of Health, Education, and Welfare Washington 25, D.C.

III. CONSTRUCTION GRANTS

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
PUBLIC HEALTH SERVICE			
Bureau of State Services			
Division of Hospital and Medical Facilities (Hill-Burton Program).	To assist in the construction of needed hospitals, public health centers, nursing homes, diagnostic and treatment centers, and rehabilitation facilities	Applicants must be either a State, a political subdivision thereof, or a public or voluntary nonprofit organization. Eligible applicants may accept a loan in lieu of a grant under the same requirements.	The State agency administering the Hill-Burton Program, usually the State Health Department, should be contacted by any prospective applicant. The State agency will provide the needed information, forms, and explanation of procedures. Further information may be secured from the Chief, Division of Hospital and Medical Facilities, Public Health Service, Washington 25, D.C.

IV. OTHER ASSISTANCE PROGRAMS

Agency and Program	Purpose of Grants	Eligible Applicants	Application Forms and Information
OFFICE OF THE SECRETARY			
Office of Field Administration			
Surplus Property Utilization	To make Federal surplus real and personal property available for health and educational purposes.	Personal property may be acquired by approved or accredited tax-supported or non-profit medical institutions, hospitals, clinics, health centers, schools, school systems, colleges or universities; by tax-supported or non-profit schools for the mentally retarded and schools for the physically handicapped. Real and related personal property may be acquired for educational use, or for use in the protection of public health, including research, by States, and their political subdivisions and instrumentalities, by tax-supported institutions, and by non-profit institutions which have been held exempt from taxation under Section 501 (c) (3) of the 1954 Internal Revenue Code.	U.S. Department of Health, Education, and Welfare, Office of Field Administration, Surplus Property Utilization Division Washington 25, D.C.

APPENDIX C

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FILMI

The films listed below are available on loan, without cost, front the Public Health Service Audiovisual Facility, Atlanta, Georgia.

Neurological Examination of the Newborn. 16 mm. color and Hound.

Neurological Examination of the One-Year Old. 16 mm. color and wound.

Information relevant to the availability of the following films may be secured from the Children's Bureau, Department of Health, Education, and Welfare, Washington 25, D.C.

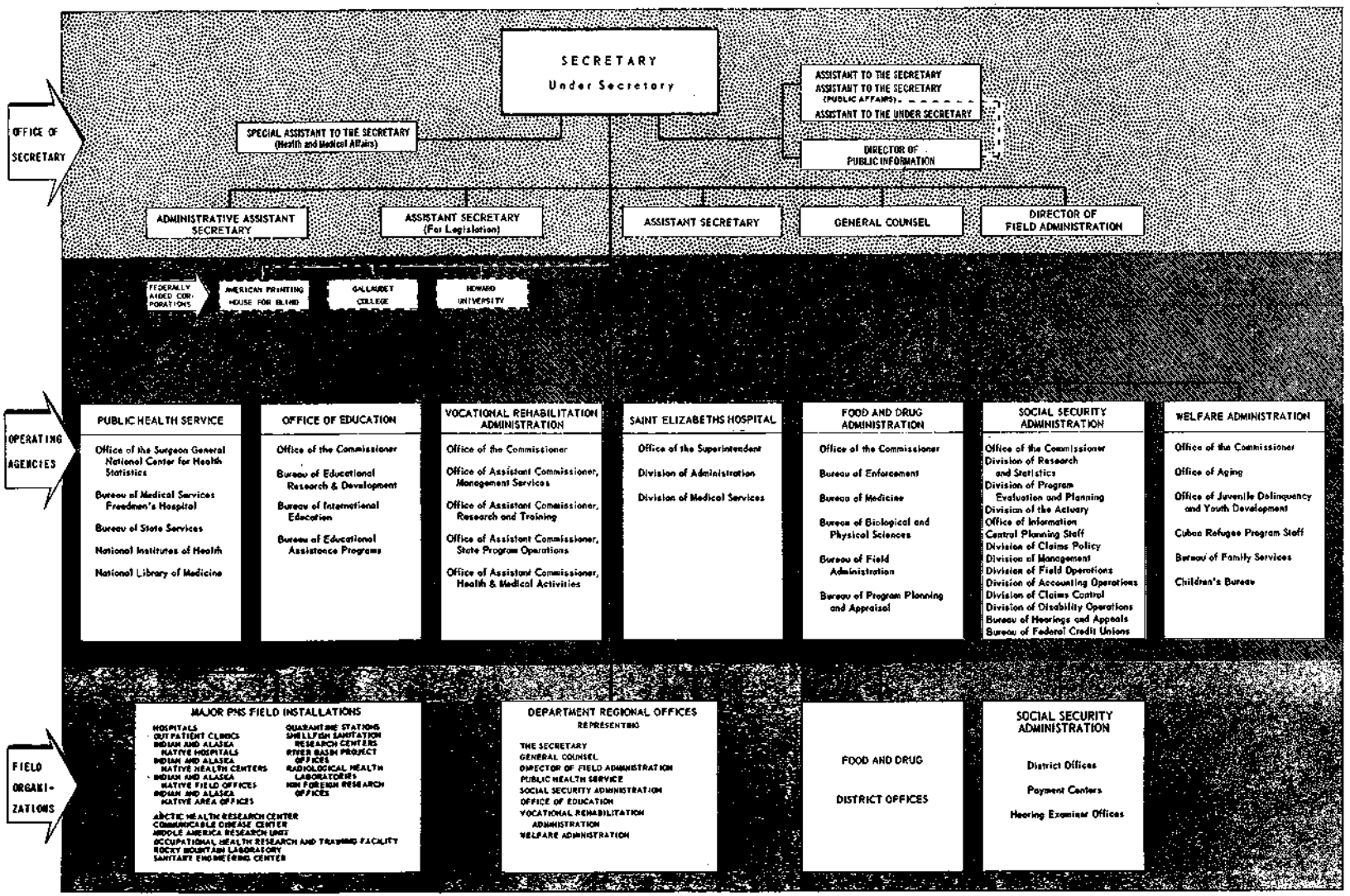
Beyond the Shadows. A film story of mental retardation seen as a community problem. 16 mm. color and sound. 26 minutes.

The Public Health Nurse and the Retarded Child. A teaching aid which depicts the many ways a public health nurse can help the retarded child and his family. 16 mm. color and sound. 22 minutes.

Pioneering Dental Health for Retarded Children. The story of a step-by-step operation of a dental health program for retarded and handicapped children. Highlighted are some of the problems which require special treatment facilities. 16 mm. color and sound. 15 minutes.

No Longer Alone. A film story of the development and operation of a children's rehabilitation center serving the retarded and the physically handicapped. 16 mm. color and sound. 22 minutes.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE



March 5, 1963

Secretary of Health, Education, and Welfare

APPENDIX E

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

REGIONAL OFFICES

	Regional Director	Address	Telephone
Region I	Mr. Lawrence J. Bresnahan	120 Boylston Street Boston 16, Mass.	482-6550
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Region III	Mr. Edmund Baxter	700 East Jefferson St. Charlottesville, Va.	296-5171
Region IV	Mr. Richard H. Lyle	50 7th St., N.E. Room 404 Atlanta 23, Georgia	876-3311 Extension 5027
Region V	Mr. Melville H. Hosch	New Post Office Building (Rm. 712) 433 W. Van Buren Street Chicago 7, Illinois	828-5160
Region VI	Mr. James W. Doarn	Federal Office Bldg. 560 Westport Road Kansas City 11, Missouri	221-7000 Extension 5201
Region VII	Mr. James H. Bond	1114 Commerce Street Dallas 2, Texas	748-5611 Extension 3396
Region VIII	Mr. Albert H. Rosenthal	621 Seventeenth St. (Rm. 551) Denver 2, Colorado	534-4151 Extension 593
Region IX	Mr. Fay W. Hunter	Federal Office Building (Rm. 447) Civic Center San Francisco 2, California	552-2350 Extension 6746