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ABSTRACT

The reduction and prevention of mental retardation and the role of colleges in intervention are addressed in six articles. In "Current Status of Efforts in Prevention of Mental Retardation," Allen C. Crocker includes information on diseases and conditions that contribute to mental retardation. Kermit H. Diggs' article, "Tertiary Prevention: A Challenge to Institutions of Higher Learning," considers the training of professionals to help disabled children and the impact of Public Law 94-142 on tertiary prevention efforts. Additional articles and authors include: "The Role of Universities in Prevention of Mental Retardation and Developmental Disabilities," (Herbert J. Cohen); "Mental Retardation, Other Developmental Disabilities and Their Relation to Criminal Justice System Procedures: Implications for Institutions of Higher Learning" (Ruth W. Diggs); and "Role of Institutions of Higher Education in Prevention and Minimizing the Occurrence of Morbidity, Mortality and Mental Retardation Through Teenage Pregnancy Intervention and Prevention" (Martha M. Conley). "The Role of Institutions of Higher Learning in Preventing and Minimizing the Occurrence of Mental Retardation," is the title of two articles, one by Howard L. Sparks and Peter Mamunes and the other by Helen Bessant-Byrd, Paul B. Mohr, and Elaine P. Witty. (SW)

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**A Monograph**

**The Role of Institutions  
of Higher Learning in  
Preventing or Minimizing  
Mental Retardation**

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**December, 1983**

**The President's Committee on Mental Retardation**  
**Washington, D.C. 20201**

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## "The Goal"

The President's Committee on Mental Retardation (PCMR) notes with interest and concern the fact that more than six million Americans of all ages are directly affected by mental retardation. It is America's number one health problem affecting children today. Every five minutes in the United States, a child is born mentally retarded. Noteworthy is the finding that one out of every ten persons in this country has a mentally retarded person in his family. Mental retardation clearly presents a major social, educational, health, and economic problem for its victims and for persons concerned with developing programs and services which will improve the quality of life experienced by them. The serious consequences of mental retardation honor no barriers; only in our efforts to prevent its occurrence are barriers evidenced.

The tragic part of this story is that most cases of mental retardation are preventable. Medical experts tell us that of the more than 200 known causes of mental retardation--including injuries at birth, poor nutrition, genetic inherited factors, infectious toxic conditions, measles, diabetes, X-rays, lead and household poisonings, venereal disease, phenylketonuria (PKU), and Rh blood disease--more than 50 percent are entirely preventable! It is similarly known that appropriate measures to prevent or manage environmental/sociocultural contributors can reduce the incidence of mental retardation in an even greater percentage of the more than six million persons affected by this handicapping condition. Recognizing the significance of these findings, the President's Committee on Mental Retardation is convinced that the most direct way to effectively deal with this staggering problem is to prevent its occurrence.

More than a decade ago, November 16, 1971, a Presidential statement issued on mental retardation proved to have a catalytic effect on the national effort to combat this disabling condition. It invited all Americans to join in a commitment to "1) reduce by half the occurrence of mental retardation in the United States before the end of the century, and 2) to enable one-third of the more than 200,000 retarded persons in public institutions to return to useful lives in the community."

The President's Committee on Mental Retardation enthusiastically joined in this commitment; setting as a high priority goal, the reduction of mental retardation from biomedical causes by at least 50 percent by the year 2000, and minimizing to the lowest level possible, the occurrence of mental retardation from environmental/sociocultural influences. The Committee pursued with renewed vigor its Charter-expressed functions to advise the President and the Secretary of the Department of Health and Human Services regarding a) "evaluation of the adequacy of the national effort to combat mental retardation", and b) "development and dissemination of such information as will tend to reduce the incidence of retardation and ameliorate its effects".

The PCMR project under the direction of Ruth W. Diggs, Ed.D., and subsequently, this Monograph addressing "The Role of Institutions of Higher Learning in Preventing or Minimizing the Occurrence of Mental Retardation" represent the Committee's continued effort to increase professional and community awareness relative to these prevention-oriented functions.

The goal to prevent or minimize the occurrence of mental retardation is both realistic and achievable. It must be pursued with conviction and perseverance.

Laverdia Taylor Roach  
Mental Retardation Committee  
Coordinator for Prevention  
Activities

## Introduction

There are more than six million Americans of all ages directly affected by mental retardation. It is estimated that retardation experienced by approximately 1.5 million of these individuals is attributable to etiologies which are clearly biomedical in nature and that the retardation experienced by the remaining 4.5 million persons is attributable primarily to environmental/sociocultural influences. It is known that appropriate measures to prevent or manage biomedical influences can significantly minimize the occurrence of mental retardation; and that such attention to environmental contributors can prevent entirely this handicapping condition.

It was understood by members of the President's Committee on Mental Retardation (PCMR) and the staff that appropriate personnel at institutions of higher learning in this country can provide assistance in meeting Presidential goals as far as both aspects of prevention are concerned.

Research results studied by members of the PCMR group dealing with environmental prevention show that in 85 to 90 percent of cases, mild retardation not involving identifiable organic or physical cause is associated with conditions arising from the environment, such as poverty, racial and ethnic discrimination and family distress.

Two issues were identified as follows: 1) institutions of higher learning have a significant role to play in any process designed to upgrade the quality of life of poor and minority groups; and 2) prevention of mental retardation is everybody's business. With these issues in mind, PCMR's Prevention Task Group on Environmental Concerns and Minority Affairs invited personnel from 50 colleges and universities to participate in a study designed to identify and define the role of institutions of higher learning in preventing and minimizing the occurrence of mental retardation, and suggested that they could participate in several types of endeavors.

In 1979, PCMR embarked on a national project to assess the involvement of higher learning institutions in the process of prevention. The Committee sent letters to 113 colleges and universities, with data sheets indicating the nature of the student population served and the types of programs designed to prevent or minimized mental retardation. There were 49 responses. The data and materials were analyzed to determine

the appropriate action to be initiated or supported by PCMR to assist these institutions participating in the educational process for prevention.

The data revealed that personnel from several institutions of higher learning were already involved in prevention of mental retardation activities. These persons were invited to participate in developing a monograph on the "Role of Institutions of Higher Learning in Preventing or Minimizing the Occurrence of Mental Retardation." The following professors responded to the challenge:

Allen C. Crocker, M.D.  
Professor of Pediatrics  
Harvard University

Howard L. Sparks, Ed.D.  
Professor of Special Education and Associate  
Vice President for Academic Affairs  
Virginia Commonwealth University

Peter Mamunes, M.D.  
Professor of Pediatrics and Human Genetics  
Vice Chairman of the Department of Pediatrics,  
Medical College of Virginia,  
Virginia Commonwealth University

Kermit H. Diggs, Ed.D.  
Professor of Education  
Norfolk State University

Helen Bessant Byrd, Ph.D.  
Professor of Education  
Norfolk State University

Paul B. Mohr, Ed.D.  
Vice President for Academic Affairs  
Norfolk State University

Elaine P. Witty, Ed.D.  
Dean, School of Education  
Norfolk State University

Herbert J. Cohen, M.D.  
Director, Rose F. Kennedy Center, UAF  
Professor of Pediatrics and Rehabilitation  
Medicine, Albert Einstein College of Medicine,  
and Former Vice-Chairperson, President's  
Committee on Mental Retardation

Martha M. Conley, Ph.D.  
Associate Professor, Home Economics/Project Director  
Norfolk Adolescent Pregnancy Prevention and  
Services Project  
Norfolk State University

This monograph represents a continuing positive effort to develop and disseminate information that will reduce the incidence of mental retardation from environmental/socio-cultural influences.



## Current Status of Efforts in Prevention of Mental Retardation

By

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Professor of Pediatrics  
Harvard University

The prevention of mental retardation is a broad assignment, encompassing a blend of technologic competencies and societal resolves, in a spectrum of increasingly achievable outcomes. The last two decades have seen a better understanding of the origins of developmental disability, plus the application of some important prevention techniques. We have achieved notable success in the elimination of a cluster of high-severity/low-incidence biomedical problems with retardation components, and we have made partial inroads on social factors causing or complicating higher incidence situations in the developmental disorders. It remains to be seen if in the 80's we as a culture have the determination to a) a press on with needed research efforts; b) commit the resources to utilize present technology in broader prevention programs; and c) move forward with appropriate social reform which will alleviate some of the basic constraints operating against personal progress for children and families.

Efforts regarding the prevention of mental retardation are often classified as primary, secondary, or tertiary (1). Primary prevention refers to those activities which actually eliminate the occurrence of the condition which causes the developmental handicap--and would be exemplified by vaccination to prevent rubella, avoidance of deleterious factors in pregnancy which harm the developing fetus (such as alcohol exposure), removal of toxic environmental elements (including lead), relief of disadvantaged situations for child support and nurturance, and prevention of childhood accidents leading to head injury or poisoning. Secondary prevention reaches to early identification of factors or conditions in which intervention can obviate an outcome with retardation. Instances here would be the screening for situations in newborn infants in which dietary or replacement therapy can prevent cortical handicap (such as PKU and congenital hypothyroidism), use of carrier identification to predict pregnancies at risk for genetic abnormalities, followed by prenatal diagnosis (Tay-Sachs disease and other inborn errors of metabolism), measurement of marker substances that signal a troubled pregnancy (maternal serum alpha-fetoprotein reneural tube defects), amniocentesis to identify fetal chromosomal

aberrations (search for Down's Syndrome in fetuses of older mothers), and provision of special anticipatory care for newborn infants in difficulty (newborn intensive care facilities for low birthweight babies and those with respiratory problems). Tertiary prevention has a broader scope, bringing particular supports to infants and families with ascertained problems where assistance can minimize long-term disability or prevent complications. Examples of this type of effort include programs to provide early identification, followed by stimulation and intervention for troubled infants and small children--such as those with sensory handicaps, Down's Syndrome, myelodysplasia, and multiple anomaly situations. An assertive philosophy regarding provision of optimal assistance to all handicapped persons, especially but not exclusively those of young age, carries a positive implication about best outcome and avoidance of desultory, more complicated end-stages.

The prevention story has many important accomplishments already documented, a record of good action from the 60's and 70's. One of the most notable would be the near-elimination of congenital rubella, the intrauterine infection which has historically been a major source of babies born with severe or profound deafness and often visual handicaps, mental retardation, and heart disease. In Massachusetts, for example, it was usual in the early 60's to have 3-5000 instances of rubella (German measles) reported in the general population per year, with about 50 children born with serious sensorineural deafness because of their mother's involvement during pregnancy with this infection. This reached 11,000 in 1963, and 37,000 in 1964, the critical years of the last major rubella epidemic, during which period 750 deaf children were born. Rubella vaccine was licensed in 1969, and has been applied with increasing vigor since then (by the fall of 1980, 99% of all children entering public school in Massachusetts has been immunized for rubella). In 1980, the reported incidence of rubella in the state was 76, and no more than 1 instance of congenital rubella has been identified for each of the last two years (2). The national figures for the annual occurrence of congenital rubella are now running several dozen only, an astonishing accomplishment.

It became possible in 1969 to identify individuals who were "carriers" (heterozygously involved) for Tay-Sachs disease. This is a genetically transmitted condition, caused by an enzymatic deficiency (hexosaminidase A), which afflicts 1 in 4 children in carrier-carrier marriages, and results in mental retardation and death by 3-4 years of age. Persons of Ashkenzai Jewish background have an increased gene frequency

for this condition, and screening programs were instituted to look for involved couples in the Jewish population. By 1979, over 250,000 persons had been tested, with the identification of 10,000 carriers and 210 couples at risk. Prenatal diagnosis was made available to those couples, and to many others who had had a previous child with this disease. As a result, 148 fetuses with the disease were found and the pregnancies terminated (and in this period 474 normal infants born in the same group) (3). The incidence of Tay-Sachs disease has been sharply curtailed in the years since carrier identification has been possible.

Utilization of techniques for measurement of thyroid hormone levels in blood specimens from newborn infants began in 1974, and has spread rapidly. Now all 50 U.S. states have detection programs for congenital hypothyroidism, a condition which if not identified in the early months of life leads to mental retardation which can be only partially rectified, but if treated early results in a normal outcome. Compliance with the testing programs in the various states is at a 90% level; in the past year no specific instances of missed diagnosis is known (4). Involvement of infants with this condition is currently running at a rate of 1 in 4,500 births. Thus, another circumstance of low-incidence but serious mental retardation has been virtually eliminated.

Down's Syndrome, a condition of multiple handicaps including mild to moderate retardation, arising from a sporadic chromosomal aberration, remains one of the more prominent specific situations causing developmental delay in children (now occurring in 1:1000 births). Programs began about 10 years ago to involve these infants and their families in enhanced early learning experiences, based on the premise that personal growth depends participation in activity. Guided by training from physical therapists, nurses, psychologists, nutritionists, social workers, and pediatricians, these children in "early intervention programs" learned motor, feeding, social, and language skills in a supported situation, and their parents had the opportunity to find more central directions and faith. Follow-up studies regarding outcomes of early stimulation have been complicated by difficulty in securing appropriate control measurements. One such, conducted at the Developmental Evaluation Clinic, Children's Hospital Medical Center, Boston, with children who were 7 years of age, 4 years after the end of the active program periods, showed that those involved in efforts started shortly after birth had achieved an average I.Q. gain of about 7 points over those not receiving educational services in the first three years, with better progress as well in communication and visual motor integration. In addition, their families had found such a much more favorable level of personal adjustment.

The instances reported above of selected primary, secondary, and tertiary prevention activities give cause for much encouragement. It is true, however, that many of the most concrete favorable outcomes in prevention programs relate to highly-specialized, rather low incidence situations, often dependent on specific biomedical technology. It is appropriate in the setting of this conference to ask about the broader impact of presently-available prevention perceptions on the mental retardation field generally. Here the situation becomes more complex, and quickly exposes a) the incomplete status of our understanding about the background for developmental delay, and b) our willingness to bring a social commitment to modification of individual outcomes. One model for looking at the larger picture is to review the experience of a hospital referral clinic, such as the Developmental Evaluation Clinic in Boston, where children with mental retardation are seen for comprehensive evaluation of their developmental status. This specialized population (more than half of the retarded children have moderate to profound handicap) provides both reinforcement and discouragement regarding the prevention outlook. About a third of the patients (see Table I) had conditions in which primary or secondary prevention efforts were relevant, but realistic application of a "portion-probably-preventable" factor suggests that only about 13% of the total clinic group could have indeed had their situation averted by current techniques. The single most unsettled group are those children for whom no clear-cut insights were available about the mechanism of their handicap; here there were often multiple minor historic elements, which in the conglomerate have affected the children adversely. Not included in this calculation, of course, is the very substantial conservation of human resources achievable by application of tertiary prevention efforts.

It is commonly agreed that about 2-3% of the general pediatric population are involved in a developmental disorder classifiable as mental retardation. An inventory of 1981 technologic achievements which can be brought to bear on a potential modification of this total, follows:

- a. congenital hypothyroidism affects 1:4500 births, and the handicap can be considered totally preventable by newborn testing

score: 0.02%

b. neural tube defects (spina bifida, myelomeningocele, anencephaly) affect 1:750 U.S. births, about two thirds of those with live births have serious development consequences (6), and up to 90% are potentially detectable by maternal serum alpha-fetoprotein screening and prenatal diagnosis

score: 0.08%

c. fetal alcohol syndrome appears to affect about 1:700 births, generally has important developmental implications, and could be prevented by public and obstetric education (7)

score: 0.15%

d. Down's Syndrome involves at least 1:1000 births, less than 20% occur in women over 35 years of age (8), the group for whom prenatal diagnosis by amniocentesis is now commonly recommended in obstetric practice, and a moderate percentage of these (up to half) can be reached for possible pregnancy interruption

score: 0.01%

e. PKU affects 1:14,000 births, identification is fully possible by newborn screening, and retardation preventable

score: 0.01%

f. Tay-Sachs Disease can be prevented in Jews (0.3% incidence in Jewish births) but probably not in others (where they are first identified after birth); children with congenital rubella and infants with possibly preventable retardation from maternal PKU, are currently of low incidence

score: ?

g. other genetic conditions in which counseling regarding reproductive planning is pertinent (Fragile-X syndrome, neurofibromatosis, tuberous sclerosis, etc.) are of low incidence although individually important

score: 0.01%

- h. premature infant births constitute several percent of total deliveries, significant developmental sequelae associated with these births and with complications in other newborns (asphyxia, hypoglycemia, etc.) probably represent a morbidity rate of 5-10 per 1000 deliveries, application of improved pregnancy management and perinatal intensive care has reduced the overall incidence of mentally retarded survivors by at least half and improvements are continuing (9)

score: 0.058

- i. head injuries, complication of meningitis, measles encephalitis, are all significant though infrequent, potentially preventable

score: ?

- j. lead intoxication, other environmental toxins constitute important background elements in human stress, but difficulty measureable regarding discrete incidence for retardation

score: ?

It can be seen that the present armamentarium for primary and secondary prevention of mental retardation cannot be expected to affect more than a third of the usual incidence. The large elements which remain constitute an indictment of our field and of the status of public resolves about children. We do not understand why a larger number of children are born with congenital anomalies affecting the central nervous system (in various "syndrome" or as more amorphous defects), though we have suspicions that environmental factors or elements in the management of pregnancy are poorly controlled. We know that support systems for infants, and for their families, including nutritional, are imperfect, often resulting in disadvantaged situations for child development. And we are obliged to admit that many causations of retardation are beyond present understanding, even regarding the general timing of nature of their occurrence. An enormous assignment remains for us in the 80's to bring this field into better focus. A further responsibility exists to establish more securely the large potential in creative applications of the techniques of tertiary prevention--the maximal support for children and families who have at hand the real challenge of developmental handicap.

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TABLE  
IMPLICATIONS REGARDING PREVENTION  
EXPERIENCE OF A TERTIARY HOSPITAL REFERRAL CLINIC

(2016 retarded children with comprehensive evaluation/13 years)  
Developmental Evaluation Clinic, Children, Hospital, Boston

	per cent of sample	portion probably preventable	per cent preventable
<b>I. ELIGIBLE FOR PRIMARY PREVENTION</b>			
elimination of the occurrence of the condition			
vaccination for rubella	1.6	all	1.6
better treatment of meningitis	0.9	1/2	0.4
avoidance of cranial trauma, cardiac arrest	1.3	1/2	0.6
genetic counseling for miscellaneous hereditary syndromes	3.2	1/4	0.8
improved management of complications of pregnancy	1.4	1/4	0.4
relief of deprivation, family disarray	9.5	1/4	2.4
<b>II. ELIGIBLE FOR SECONDARY PREVENTION</b>			
early identification, intervention to eliminate potential for abnormality			
newborn screening for aminoacidopathies	0.7	all	0.7
prenatal diagnosis for Down's Syndrome	8.1	1/10	0.8
mucopolysaccharidoses, lipidoses	0.8	1/10	0.1
newborn intensive care for perinatal complications	10.1	1/2	5.0
<b>Totals</b>	<b>37.8</b>		<b>13.0</b>



III. CONDITIONS NOT CURRENTLY PREVENTABLE (in 1 or 2 sense)  
per status of understanding, technology

other chromosomal abnormalities	1.2
prenatal influence syndromes (other than rubella, hypothyroidism)	20.6
other infections	1.2
childhood neuroses/psychoses	7.4
miscellaneous	0.3
unknown etiology	31.4



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THE ROLE OF UNIVERSITIES IN PREVENTION OF  
MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES

By

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and  
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President's Committee on Mental Retardation

Background

The academic community has had a long standing interest in mental retardation. Beginning with the activities of the 19th Century scholars Etard and Sequin, there has been a continuing interest on the part of university personnel in the causes and treatment of mental retardation. In recent decades, interests has substantially increased about other types of developmental disabilities. The involvement of the federal government in mental retardation and developmental disabilities (MR/DD) expanded in the 1930's, when, after a 1930 White House Conference on Child Health and Protection, the Title V program (Social Security Act) was passed which established a national Maternal and Child Health and Crippled Children's program.

The modern ERA of university involvement was stimulated by two major factors: 1) Spurred by the thrust of the human rights and consumerism movements, parents and relatives demanded new services for their affected relatives; 2) The precedent setting action of President John F. Kennedy and his family in publicly acknowledging the presence of a retarded family member in a presidential family was followed by an announcement that they intend to make changes in the field of mental retardation. Aside from the psychological impact of these changes, new directions for university involvement with the handicapped were established when President Kennedy, on the advice of a Presidential Panel on Mental Retardation which he had appointed, recommended a new authorizing legislation with the specific intent of developing new university based programs for the mentally retarded. This legislation, PL 88-164, led to the development of both Mental Retardation Research Centers (MRRC's), of which 12 were eventually constructed in the United States, an University Affiliated Facilities (UAFs) for training and program development in the field of mental retardation. Forty eight UAFs now exist as components of a national network of such programs.

Another product of the President's Panel's recommendations was the establishment of university based Rehabilitation Research and Training Centers under the Vocational Rehabilitation Act of 1961. Three such centers are now primarily dedicated to work with the mentally retarded.

The enactment of P.L. 99-164 represented a breakthrough in which the federal government signaled to universities that it specifically wanted to stimulate and expand their direct involvement in research, training and service development for the mentally retarded. This stimulus proved quite successful, since the Mental Retardation Research Centers (MRRCs) became deeply involved in many aspects of biological and behavioral research about the causes and treatment of mental retardation. They became the hub around which national research in the field revolved. At the same time, University Affiliated Facilities (UAFs) grew in numbers and as a result of the amendments to the Developmental Disability Act of 1972, the mission of UAFs were expanded to include responsibility for training of personnel to work with other types of developmentally disabled individuals.

Over the past decade, the role of UAFs grew to include not only training, but also program development, model service delivery and providing technical assistance to governmental and voluntary agencies. Furthermore, most UAFs established links to many other universities, colleges and community colleges in order to expand training efforts in disciplines that were not "in house" programs of the parent universities.

The research activities of MRRCs and the training efforts of UAFs have certainly not been the only sources of university involvement in the mental retardation field. They, however, set examples for interdisciplinary efforts. Over the past two decades, many colleges and university programs, spurred by the efforts and dedication of individual faculty members, have expanded research and training activities in hundreds of teaching institutions throughout the country. Financial assistance from the National Institute of Health and components of the Federal Office (now Department) of Education have been quite helpful in fostering the expansion of these programs.

## Evolution of University Programs

Initial efforts of university programs in the 1960's focused, in the research area, on determining the causes of mental retardation and establishing what were the best treatment approaches. Early UAF activities emphasized use of interdisciplinary training methods to upgrade the quality of personnel in the MR/DD field and on increasing available manpower in specific areas of need. An incidental spinoff of these efforts was the training and development of new leaders in the field. Soon MRRC and UAF trained personnel began to develop new innovative programs, to lead new research programs, and to head local, regional and national service organizations reflecting the interest of the affected population.

As the movement evolved towards community care, deinstitutionalization, improved treatment or training techniques, and more effective advocacy for the MR/DD population, many MRRC and UAF staff who had either participated in or provided leadership in aspects of these movements, began re-examining their future roles. One result was that the university based programs began to increase their emphasis in areas such as prevention.

While an interest on the part of MRRCs and UAFs in prevention had always been evident, this area has clearly gained more attention in recent years. The reasons may include:

- 1) A desire to move into new areas of challenge;
- 2) Frustration with the limited effectiveness of treatment approaches, while witnessing the enormous burden on families;
- 3) Seeing new technology evolving such as the advances in genetics, metabolic screening (both of which MRRCs and UAFs played significant roles in developing and in implementing), as well as the emerging revolution in molecular biology; and
- 4) Being stimulated by the growing interest and emphasis, particularly by governmental agencies, in cost effective methods and approaches.

What has, therefore, happened, according to recent surveys, is that MRRCs and UAFs have been gradually apportioning an increasing percentage of their time and resources to prevention related activities.

## Prevention Activities

In reviewing current and future roles of universities in prevention, it is clear that such activities undoubtedly reflect the priorities determined by our society at large, as well as university policy. This influence of federal funding has been critical in stimulating research activities and service delivery patterns. One can safely predict that, despite the "new federalism" promulgated by the current administration, many current trends in research, training and services will persist. Executive and legislative positions on issues such as abortion and family planning will affect the types of technology that can be applied to delivery of some primary prevention services. However, past history indicates that biomedical research findings continue to find their way into medical practice and that cost saving techniques and public demand for cures will assure expansion of primary prevention efforts. How much universities care to become involved in the political controversies, or as providers of "outreach" training and service efforts will certainly depend on both the political climate for and economic feasibility of such activities.

Prevention of mental retardation begins with primary prevention which can be defined as the elimination of the occurrence of the problem or the reduction of its prevalence in the community. Key elements in primary prevention are genetic counseling and improved prenatal care. Genetic counseling services have rapidly expanded in the past decade with improvement in chromosome analysis techniques and expanded availability of and improved techniques for amniocentesis used to detect chromosomal, neural tube or metabolic defects. These efforts have led to the termination of pregnancy in a very small minority of cases. New techniques for intrauterine treatment of metabolic disorders are just in their infancy and will lead to life saving measures that will also produce normal offspring. Even now, most amniocenteses lead to reassurance of parents, and, in fact, avoid unnecessary abortions in situations where parents are frightened of having abnormal children, in some cases a second affected child in the family.

The most rapid advances in genetics have occurred in university hospitals and medical centers. Continuation of such programs is likely, despite changes in the political climate, as scientific progress inevitably will permit some cures of currently incurable genetic conditions.

Improved prenatal care is a broad mandate that includes: ready access to and availability of basic prenatal care; improved nutrition; protection against infection; early treatment of high risk conditions; and avoidance of adverse environmental conditions, especially exposure to toxic substances such as lead, alcohol, illicit drugs and many unknown potential toxic substances. It is unclear that universities will continue to have an important role in research about adverse influences on the developing fetus, what can be treated or avoided and how, and in training professional manpower to provide more and better prenatal care. However, the major issues to be resolved in the future are generic to our society. Will care be accessible and universal to all, irrespective of race or social class? Will we curb the use of harmful substances in our environment? How will we deal with the epidemic of adolescent pregnancies? By improved sex education? By lecturing on chastity? By promoting male and female birth control activities? By offering unlimited access to abortion? These are not issues that will be resolved by universities; but must be dealt with by a society that determines that the problem is a serious one with high risks of producing defective or socially maladaptive children, a society that decides to help potential mothers, actual mothers or the infant at risk of life-long problems.

The other keystones of primary prevention are improved neonatal care and prevention efforts in early childhood. The neonatal care issue is a very pertinent one with the expansion of neonatal intensive care in this country and the increasing number of low birth weight survivors of those units who are at risk of MR/DD. University hospitals have played important roles in establishing regional perinatal networks, upgrading perinatal care and improving the quality of personnel in the field. Furthermore, much research remains to be done to determine how to most effectively care for low birth weight premature babies who, based on current data, have an inordinately high risk of future problems.

Improved care for young children to avoid causes of MR/DD such as catastrophic illnesses, accidents, poisonings, or abuse and neglect all fall within the purview of public health activities. Expanded immunization programs, accident prevention activities, access to health care and social services are the key elements in such a strategy. Universities play key roles in identifying the causes of such problems, in training clinicians and in some areas helping to modify public opinion. However, the implementation of a national prevention effort in these areas are clearly a responsibility of governmental agencies at local, state or federal levels. All such efforts, as well as some in secondary prevention discussed below, require a significant community education program to educate both the target populations, as well as the public at large, about the benefits of prevention programs.

Secondary prevention aims at identifying and treating a problem early so as to eliminate the potential for abnormality, altering the circumstances which create the condition or to minimize or mitigate the adverse effects of the disability. The most important examples involve early identification of high risk conditions and offering medical, surgical, social or educational intervention as soon as possible.

Perfecting techniques for early identification have clearly been a university related activity. Teaching hospitals have been leaders in the development and perfection of metabolic screening techniques which lead to effective dietary management of disorders such as PKU. Surgically correctible conditions such as hydrocephalous are successfully treated through techniques developed at University Medical Center. Neurophysiologic research to identify at risk prematures and neonates is another important area of current research. Training of personnel to conduct these studies and to utilize the methodologies has been and will continue to be a relevant university activity. Outside of the hospital, universities have played and should continue to play a significant role in outreach screening efforts for MR/DD. This has been conducted directly by some Centers or indirectly through the training of health practitioners or early childhood personnel in the community.

Once risk conditions are identified, then the next step is early intervention. Work is currently continuing with universities to examine methods of intervention, physical rehabilitation and habilitation in order to ascertain the value of currently available techniques and to develop new therapeutic approaches.

An important goal in secondary prevention must be expansion of early intervention programs to maximize the potential of affected children. Such efforts are vital to reduce the impact of the child and family. As well, long term financial costs are noticeably reduced and psychological costs to the family can be decreased. Universities have important roles in assisting new program development and in training personnel to work in such programs. But the development of more extensive early intervention efforts requires a broader commitment by our society to help these children and their families as soon and as vigorously as possible.

### Conclusion

In the past two decades, the role of Universities in the fields of mental retardation and developmental disabilities has expanded considerably in the areas of research, training and program development. The federal legislation establishing University Affiliated Facilities and Mental Retardation Research Centers provided an important stimulus for major university commitments to the field and gave considerable impetus to enable many new and better trained professionals to devote their professional lives to the concerns of the disabled.

There has been an accelerating interest in prevention of MR/DD. University Medical Centers have important roles in primary prevention and in early intervention, both in research and training. Problems of improved access to health care and prenatal care, as well as to early intervention and/or treatment programs, is a societal problem. Universities can identify the nature and causes of the problem and assist with the development and utilization of technology, or in training required personnel. However, many essential elements in an overall prevention strategy are matters of public policy and their success will require the commitment of our society's leaders and the general public who will pay for the programs.



TERTIARY PREVENTION: A CHALLENGE TO  
INSTITUTIONS OF HIGHER LEARNING

by

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The prevention of mental retardation can be channeled into three categories: primary, secondary, and tertiary. In the report to the President-Mental Retardation: Prevention Strategies that Work, (1980), primary prevention is delineated as the attempt to eliminate the occurrence of the problem in the individual and to reduce the prevalence in the community. Classical examples cited in the Report include 1) addressing the medical and social factors, including poverty, which predispose to mental retardation; 2) improvement of prenatal and perinatal care and factors, within these time frames which directly lead to mental retardation; and 3) prevention of postnatal causes including catastrophic illnesses, accidents, poisonings and abuse and neglect which lead to abnormal development.

The Report to the President pointed out that secondary prevention attempts to identify a problem early so that intervention at the outset will eliminate the potential for abnormality or alter the circumstances which created the condition. Traditional examples of these include 1) early identification of high risk conditions; and 2) early medical, social, and other educational or other therapeutic interventions.

Finally, it is emphasized in the Report that tertiary prevention is aimed at minimizing the long term disability or at least mitigating some of its effects. This usually takes the form of casefinding and provision of specific and/or comprehensive services for individuals or populations at large.

The discussion in this paper focuses on 1) information concerning P.L. 94-142 and its relationship to tertiary prevention programs; 2) its utilization by teacher preparation personnel in any college or university where there is concern with preparation of professional personnel to meet the needs of handicapped children, and 3) types of tertiary programming which will minimize and mitigate the effects of long term disability.

The Impact of Public Law 94-142:  
Its Effect on Programming for Tertiary Prevention

The advent of Public Law 94-142 brought significant impact on regular and vocational education programs. This sweeping legislation is essentially a national mandatory special education law charging state and local education agencies with the responsibility of providing a free and appropriate public education for all handicapped children ages 3-21. Halloran and Phelps (1977) noted several provisions of the act which have impact on Vocational Education:

- 1) Assurance that individualized written educational plans will be developed and maintained for each student.
- 2) A guarantee of complete due process procedures.
- 3) Assurance that students will be served in the "least restrictive educational environment...". Restrictive environments, such as special classes or special schools, are to be utilized only when the nature of the handicap is such that supplementary services and aids provided in regular classes are ineffectual.
- 4) Assurance of non-discriminatory testing and evaluation.
- 5) Policies and procedures to protect and confidentiality of student records.

Public Law 94-142 contains several specific provisions which directly affect vocational education for the handicapped. Vocational education programming is an important aspect of tertiary prevention. First, in the states' annual program plans submitted to the Department of Education, they must ensure that funds received under the vocational amendments of 1976 are used in a manner consistent with the goal of providing a free and appropriate public education. Since "appropriate education" is defined to include individual education programs (IEP's), handicapped students enrolled in regular, as well as special education schools or classes, will have IEP's. Second, under the full educational opportunity goal, the legislation specifically states: "state and local education agencies shall take steps to ensure that handicapped children shall have available to them the variety of programs

and service available to non-handicapped children, including... industrial arts, home economics, and vocational education." This expanded definition indicates an increase in the role of vocational education as a significant tertiary prevention factor and a component of the career preparation of handicapped persons at the secondary and post-secondary levels.

The vocational and economic competency of the handicapped must be appropriately assessed. A major objective for all retarded individuals should be the attainment of some degree of vocational competency and economic productivity. Wallin (1955) pointed out that increasingly the accumulated evidence has shown that a far higher proportion of mentally retarded persons are able to become productive and work trend in dealing with this population is toward placement in and involvement with society in normal patterns of employment rather than institutional and in welfare status. As suitable training programs develop at both the elementary and secondary school levels, increasingly larger percentages of the handicapped will become part of the nation's work force.

In general, the higher the mental level of the individual, the higher the complexity of vocational training which is possible for him. It must be remembered that factors other than mental ability enter significantly into the kind of work which an individual is capable of performing under reality conditions. Such factors are as follows:

- 1) The economic status of the community at the time of possible employment;
- 2) The social skills, especially the ability to get along with other; and
- 3) The ability to take and follow directions.

It is also true that retarded individuals are capable of performing many complex manual and technical operations if they are given appropriate training.

Vocational training will not only enable handicapped individuals to participate meaningfully in society, but it will lead to development of more positive self concepts and contribute to improved social adjustment. It is also important to note that vocational training should include, above and beyond the specific occupational skills which are involved,



many social skills such as punctuality, courtesy, cleanliness, and reliability. Some studies show that traits such as these are of primary importance in getting and holding many kinds of jobs.

One of the most intensive follow-up studies of retarded individuals who had been enrolled in special classes took place in Lincoln, Nebraska several years ago. They had not necessarily been given the kind of vocational training with which there is concern today. However, it was found that more than eighty percent of the graduates were gainfully employed. Although most held laboring types of jobs, some held higher level employment including managerial positions. A few even lived in expensive homes of their own. It was also interesting to note from this study that although more than half of the men had been involved in some law violation, none had committed any serious offenses. The usual offense was that of some minor traffic or civil infraction.

Although not all follow-up studies point to such a favorable impression as the above, the general finding is that the mentally retarded individual, except for the lowest grades is employable, is able to hold a job about as well as the rest of the population during times of reasonable good or very good employment, and is essentially a law abiding citizen. With improved vocational training and with the availability of good and continuing employment counseling, there is every reason to believe that the record can be improved.

Cegelka and Phillips (1978) provided current information which reveals that educational neglect and mismanagement of the past will no longer be tolerated. One may note that the 1976 Amendments to the Vocational Education Act specifically mandates that handicapped children must be included in regular vocational education programs whenever possible. In addition to the Amendment, Public Law 94-142 requires that appropriate programs be provided for handicapped children in the least restrictive environment possible. In addition, the Law specifically alludes to vocational education, and in fact, its provisions supersede those of the Vocational Education Act and its amendments.

Cegelka and Phillips (1978) stated:

Consequently, it can be expected that the individualized education programs developed for high incidence mildly or moderately handicapped children will specify that vocational education classes will be determined to be the least restrictive environment in which requisite training can be provided. Cooperation between vocational education and special education is no longer a matter of choice; it is fast becoming a matter of compliance. By virtue of the provisions of the Vocational Rehabilitation Act of 1973, vocational rehabilitation counselors will also become increasingly involved in the delivery of services to school-aged handicapped youth (p.85).

Cegelka and Phillips reviewed the implications of the legislative mandates which require individualized programming for secondary level handicapped students. It is clear that these youngsters must be included, where appropriate, in vocational education programs as well as in other mainstream programs. The views of these authorities are supported by Meisgeier (1976) who felt that mainstreaming may be a potent vehicle to bring about major curriculum changes demanded in the name of reform and in response to the basic tenets of Public Law 94-142. He stated:

Mainstreaming provides a structure in which individualized instruction can mature and be used effectively. It offers an essential management vehicle for the introduction of a variety of program components. For example, if individualized instruction is ever to become a reality in a mature state, evaluation and measurement of procedures for individualization will have to be developed and used (p.63).

Finally, Cegelka and Phillips concluded that the development and implication of individualized education programming should be the structure for the development of educational services to the handicapped. They listed five basic considerations for the development, implementation, and monitoring of individualized educational programs. These were 1) assessment; 2) placement; 3) curriculum; 4) program management; and 5) evaluation. It was emphasized that the role of program manager is one that is essential to comply with both the letter and intent of the law.

The five basic considerations identified by Cegelka and Phillips represent a challenge to all teacher preparation personnel institutions of higher learning. Preservice and inservice personnel must be prepared to 1) demonstrate the competencies needed to assess student skills; 2) plan an individualized program; 3) determine program placement; 4) specify the instructional component; and 5) evaluate the total program. For total effectiveness, vocational educators in cooperation with special educators, other teachers, parents, administrators, and when appropriate, other individuals must share in the process of developing and monitoring the educational programs for handicapped adolescents.

Public Law 94-142 gives some direction to training areas that need to be addressed by college and university teacher preparation programs and the health related professions. These areas include 1) development of skills that allow instructional personnel to implement individualized educational programs; 2) training personnel to be assessors of a child's present level of functioning; 3) general training in the development of interpersonal communication skills to allow more effective interaction with parents of handicapped children; 4) assisting strategies to handle appropriate behaviors; 5) training instructional personnel to use daily record keeping and data collection activities for evaluation purposes; 6) training instructional personnel in procedures for using comprehensive data base for educational planning; 7) developing programs which will increase certified personnel awareness of how to work with aides; and 8) develop training programs to help local educational agency personnel gain a better understanding of Public Law 94-142 (Barbaconi and Clelland, 1976).

#### Multicultural Education: An Approach to Tertiary Prevention

Another tertiary prevention strategy is that of multicultural education. Activities should be developed to positively enhance the understandings and attitudes of teachers and administrators in order that the quality of educational experiences provided for minority group handicapped children in the mainstream will be improved.

The President's Committee on Mental Retardation (1976) took a significant look at the problems of mentally retarded minority group children and initiated a serious effort to reduce the occurrence in mild forms of mental retardation by attacking root causes in depressed, disrupted and impoverished environments. Poverty itself produces magnified hazards to life, health and human development, but when it is accompanied by racial and ethnic discrimination, cultural deprivation and family disintegration, the consequent disadvantage is multiplied many times over. This is the case of the American scene most frequently among Black, Spanish speaking, Native and Asian Americans and multiple disadvantaged urban and rural whites: Members of these groups appear among those identified as mentally retarded in numbers far out of proportion to their presence in the total population. This cannot be ascribed to inherent racial, ethnic or familial defect, but to social, economic, and educational disadvantages to which these groups are subjected.

While it is true that handicapped individuals who are members of racial and ethnic minorities suffer the same indignities as other handicapped individuals. There are special and unique problems that these individuals face because of the lack awareness of cultural differences (Ron Wakabayashi, et al., 1977). For example, pervasive discrimination and segregation in employment, education and housing have resulted in the continuing exclusion of great numbers of ethnic minorities from the benefits of economic progress. In addition, prejudice and racial discrimination continue to exclude a great number of these individuals from full participation in all aspects of society. These facts provide implications for development of programs designed for tertiary prevention.

Handicapped people, particularly ethnic minorities who are handicapped, have a basic psychological need, a need for self-esteem, such as high evaluation by others. As a result of this factor, people have a tendency to develop according to what we expect of them. The self-image of the handicapped minority seeking help is deeply affected by the manner in which he or she is treated, and the goals and expectations of the person providing assistance for him or her.

Jones and Wilderson (1976) eloquently described minority group concerns which support the conclusions of Diggs (1974). They stated:

From the prospective of minority group members, self-contained special classes were to be indicted on several counts, including but not limited to beliefs that a) minority group children were overrepresented in special classes, particularly for the mentally retarded; b) that assessment practices are biased; c) that special education labels are stigmatizing; and d) that teachers hold negative attitudes toward the potential of minority group children (p.3).

Diggs (1974) pointed out that professionals today are being seriously challenged to do a better job of meeting the needs of culturally difference children. The primary concerns of this challenge are: a) motivation of culturally different children; b) cultural background and its role in the educational process; c) programs and instructional materials which are effective in meeting the needs of the culturally different children; d) teacher preparation programs to sensitize inservice teachers and to prepare preservice teachers to do a more effective job in designing educational programs to meet the special needs and abilities of culturally different children; and e) parent and community involvement to enhance development of children from all ethnic groups.

The written standards for accreditation of teacher education (1979) used to accredit basic and advanced preparation programs for professional school personnel support Diggs' concerns. The standards include the following:

Multicultural education is preparation for the social, political and economic realities that individuals experience in culturally diverse and complex human encounters. These realities have both national and international dimensions. This preparation provides a means by which an individual develops competencies for perceiving, evaluating and behaving in different cultural settings. Thus, multicultural education is viewed as an



intervention and an ongoing assessment process to help institutions and individuals become more responsive to the human condition, individual cultural integrity, and cultural pluralism in society. Provision should be made for instruction in multicultural education in teacher education programs. Multicultural education should receive attention in courses, seminars, directed reading, laboratory and clinical experiences, practicum, and other types of field experiences.

The American Association of Colleges of Teacher Education (AACTE) points out further that multicultural education could include but not be limited to experiences which: 1) promote analytical and evaluative abilities to confront issues such as participatory democracy, racism and sexism, and the parity of power; 2) develop skills for values clarification including the study of the manifest and latent transmission of values; 3) developing teacher strategies; and 4) examine linguistic variations and diverse learning styles as a basis for the development of appropriate teaching strategies.

With this background of information and experience, some college and university personnel are beginning to modify their programs of teacher preparation. Expansion, intensification and extensification continue as the transition in multicultural educational concepts gains momentum.

Prospective teachers, like all other students, need a sound general education. However, this need is accentuated by the nature of the professional responsibilities that they are expected to assume. As teachers, they are destined to play an important role in providing general education for children and youth and to serve as models that have attitudes, knowledge, and skills to enrich human experience and promote the positive human values of our multicultural society. Furthermore, the subjects studied in general education may be needed to support their teaching specialities.

Finally, one only has to take a look at teacher preparation programs around the country and talk with directors of these programs to learn that in terms of the preparation of teachers, the curricula, faculty, and resources are inadequate to do the job which needs to be done. Corrigan (1976) concluded that unless colleges of education within the university settings are supported in the acceptance of their role as the training arm

of their profession, other agencies will fill the vacuum. The schools and social agencies are already beginning to look elsewhere, or are setting up their own preservice and inservice programs. Apparently, they are moving in this direction because those of us in higher education have defaulted on our responsibility to them.

Colleges and universities must become aware that higher education institutions must develop outreach programs of continuing education and field-based programs of training associated with community service settings. A major focus of teacher education programs should be on the upgrading of the quality of life of poor and minority groups. Minority institutions of higher learning are uniquely qualified to deal with problems experienced in minority and poverty settings.

#### Concluding Statement

If we look at the basic tenets of Public Law 94-142 and assume that this law is simply another flimsy educational innovation or political gimmick, then we are oriented in a negative direction as far as development of programs of tertiary prevention is concerned. Moreover, it is unrealistic not to require careful planning and, in most cases, the allocation of extra resources in the form of staff and services in order for schools effectively order the educational environment for handicapped children.

The institution should give evidence of planning for multicultural education in its teacher education curriculum including both the general and professional studies component. Therefore, colleges and universities are responding to current pressing needs by developing programs to prepare teachers with special competencies--teachers for children with special developmental and/or learning problems, teachers to work with children belonging to specific cultural groups, teachers to teach upgraded schools, and teachers with an international component as a part of their training. More and more, curricula of colleges and universities are providing opportunities for students to gain understanding and appreciation of the culturally diverse nature of American society and to develop positive attitudes toward the unique contributions of various cultural groups.

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The Role of Institutions of Higher Learning in  
Preventing and Minimizing the Occurrence of Mental Retardation

by

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Higher education's role in the prevention, minimization, and management of mental retardation is approachable from a variety of viewpoints. One of the most important of these relates to the fact that institutions, particularly those established and supported by the public sector, are expected to employ basic and applied research in the endless striving for the common weal. This is, in fact, what occurs, although emphases change as a function of public mood, national economic and social policy, and not unimportantly, international relationships. A case in point is the current deemphasis of human service research by the incumbent Federal administration, and its apparently bi-partisan legislative support. At least in part, if not primarily, this mood in the legislative and executive branches of government has derived from perceived excesses and, too often, failings of basic research programs and little or no pay-off in the applied research in human service areas. While it could be documented that important contributions continue to be made through both basic and applied research, it would unlikely persuade a change in the current governmental stance. This is not meant to portray a picture of doom and gloom; rather, the intent is to demonstrate the need for a national forum wherein the important role of colleges and universities in resolving human problems can occur. This needed effort will be further developed later.

The mission statement of almost any college or university includes the clearly declared objective of providing society with well-informed, productive and satisfied citizens. Typically, this is accomplished within the context of its major goals of teaching, research, and service. An examination of any of these three, measured against the resources of a university or college, should make its role in the area of mental retardation self-evident. To illustrate, however, one health sciences division effort and one academic one should suffice.

Medical school curricula should routinely and accurately include the myriad ways in which mental retardation can be prevented or ameliorated, and while some specialities would expect to develop extended knowledge as a function of the specialty training, a base level of information should be included in every undergraduate medical curriculum. By the same token, basic research in a Health sciences division often has, but should routinely, focus on both prevention and treatment.

While the Schools of Social Work, Public Affairs, and even Humanities and Sciences have a role in prevention and minimization of mental retardation through research and teaching, the obvious and easiest one, perhaps to address is the School of Education. With the advent of Departments of Special Education, other School of Education programs have typically left the field of mental retardation to them. While Special Education Departments are correctly the primary focus of concern, they clearly should not be the only one. All teacher training needs to address the problem of mentally retarded persons during school years and that awareness should exceed the minimal requirement now being met by most schools. An ideal School of Education should train teachers so well grounded in child growth and development that mentally retarded youngsters are clearly embraced intellectually and philosophically by all graduates. It often requires some curriculum re-structuring and in this instance, the current national mood and public policy could be used in a very positive fashion. An examination of teacher education and its evolution through over-specialization would probably reveal that over-specialization has in fact aborted the very goals that gave rise to these new specializations. Some levels requires much less methodology and far more child development if teachers are to improve their interaction with children and increase the quality of schooling. It is likely that a teacher so well grounded with just such a knowledge base and educational belief system that he/she is capable of teaching any youngster appropriately and sensitively.

These are just two illustrations of the need for curriculum revision as it relates to the subject of mental retardation. If space permitted, further analyses of the curricula of a university would demonstrate further needed changes.

In a similar manner, research in mental retardation should permeate all segments of the academic community. Some will be basic, which will ultimately support applied research and consequently effect prevention as well as alter many aspects of

the management of mental retardation. Ample examples of such research application have occurred and there is every reason to expect that much more shall come.

The public service mission is perhaps hardest of all to discuss because it ranges from single faculty members linking with social agencies to sizeable efforts on the part of the university itself to provide services and information directly. Some institutions are involved in numerous projects and activities which provide direct services; however, too often there are few linkages and the decision to engage in the range of activities is not a conscious or planned one. While this does not devalue the efforts, it may not be the best use of limited resources, which include importantly both dollars and time.

This, then, returns us to the point made earlier about the need for a forum. What are the national priorities in mental retardation which colleges and universities are most capable of addressing well? If they have been identified, how effectively have they been communicated? It would appear to be timely to call together a group of people which consists of mental retardation specialists and college and university officials who can collectively identify both problems and strategies for their solution. The time may have come and gone when any contribution from any source is a goal. Without suggesting that they aren't all important, there should at least be an examination of what goal or goals have highest priority.

It seems clear that those seeking continuation of governmental support through any agencies of government must be clear, concise and persistent in their demands. It is possible to alter the national mood and policy without seeking the usually expected financial support. If policies can be identified that are conceptually sound and have general professional concurrence, colleges and universities will not only remain involved but could become increasingly so; with or without accompanying categorical support.

**Mental Retardation, Other Developmental Disabilities and  
Their Relation to Criminal Justice System Procedures:  
Implications for Institutions of Higher Learning**

by

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Personnel involved in the criminal justice system today are being seriously challenged to do a better job of meeting the personal and civil rights needs of the mentally retarded, including those from minority groups. The primary concern of this challenge has its roots in the relationship which exists among juveniles, corrections officers and retarded offenders.

According to results of a large body of literature research by Miles Santamour of the President's Committee on Mental Retardation, it appears that awareness has been recently generated concerning the problems of the mentally retarded offender. Therefore, persons involved in the criminal justice system, along with mental health-mental retardation professionals and human rights advocates are challenged to take a closer look at the problem and the myriad of factors and issues which complicate the problem.

Eunice Kennedy Shriver (1976) appropriately identified the broad major problems that all individuals with mental retardation face in the criminal justice system. She stated:

When a retarded person is involved or suspected of involvement in crime, no statutes exist that deny him rights accorded to every other citizen. Yet, in practical operation, the mentally retarded offender is frequently deprived of these rights. The fact is that mentally retarded people are three times as common in the population of federal prisons as in the general population. Such data have sometimes been erroneously interpreted to mean that retardation is characterized by criminal tendencies. In fact, however, these statistics show that the mentally retarded suspects, at the time of arrest, have more frequently waived their constitutional rights against making self-incriminatory statements. They are easily

cajoled into confession. They waive the rights to counsel and to jury trial far more often than the criminal with average intelligence. Likewise, reduction of the charge is far less frequently with the mentally retarded person. It is infrequent for a judgment or sentence against a mentally retarded person to be appealed (p. xxi).

Shriver's concept is supported by Santamour and West (1979). They explained:

The delayed development process of the retarded individual and the greater levels of dependency characteristic of retardation often create confusion and misunderstanding among criminal justice personnel. Confusion is further generated by tenacious myths held as knowledge by many persons with whom the retarded person has contact (p. 24).

Santamour and West outlined the myths as follows: 1) the supposed "criminal nature" of the retarded person; 2) the heightened sexuality of retarded person; and 3) the belief that retarded persons are unable to live productive lives within the community. Shriver agreed with Santamour and West, and pointed out that with appropriate help and by any standards of worth, mentally retarded individuals have great value in our society. Santamour and West also supported Shriver's contention relative to the deprivation of rights of the mentally retarded citizens. They stated:

As a result of myths the retarded person is placed at a disadvantage when he enters the criminal justice system, disadvantages which are magnified within a system where retarded individuals are already stigmatized by virtue of their social position (p. 24).

This paper is basically concerned with the following issues: (1) a negative relationship exists between the mentally retarded juvenile offender and the criminal justice system due in large part to the effects produced by environmental factors; (2) there is need for identification of environmental factors as related to mental retardation and its prevention in order to enhance the process of criminal justice for the mentally retarded and other disabled offenders and (3) there is need for identification of the role of institutions of higher learning in enhancing the judicial and legislative skills of individuals presently serving or who will serve in the criminal justice system in relationship to the mentally retarded and other disabled offenders and development of tertiary prevention programs.



Each time a law enforcement officer becomes involved with a person who may be developmentally disabled, he will be faced with several important considerations. Some significant questions are: How can police officers begin to identify whether a person has a developmental disability or some other problem? Is the disabled person dangerous to himself or to others? What action, if any, is most appropriate to the situation? What resources can police officers and other law enforcement personnel call upon to assist them and disabled individuals?

The presentation of this paper has several purposes: firstly, to relate what all persons who work with individuals with developmental disabilities should know in general; secondly, to share information concerning the nature of minorities with disabilities, their behaviors, abilities, handicaps and conditions for potential handicaps, and thirdly, to ultimately help criminal justice personnel and the developmentally disabled in their contacts with each other.

First of all, what is a developmental disability? Very simply stated, a developmental disability may be due to mental retardation, cerebral palsy, epilepsy or autism. It is possible for an individual to have more than one such handicap, but because a person has one type of disability you cannot assume that he is handicapped in any other way. For example, a person with cerebral palsy may or may not speak at all because of the palsy but have normal intelligence. Persons with epilepsy have the same range of I.Q. as the general population and with the autistic population it has been found that twenty percent of these persons have I.Q. scores above seventy. (Beilin, 1981)

Mental Retardation...A person with a handicap of mental retardation is a person whose intellectual and social skills are delayed or limited. Intellectual limitation of a mentally retarded person has usually been caused by defects in the developing embryo or at birth, by deprivation or brain injury in early childhood, by toxins or poisons or by hereditary factors. Consequently, treatment must be directed more at training the individual to live with his handicap rather than at curing the condition. People who are retarded are often socially immature and inadequate in their personal relationships. Though they are sometimes handicapped further by emotional and physical disabilities, it is essential that mentally retarded persons be regarded with respect: they have sensitive feelings, desires and hopes.

Grossman (1975) defined mental retardation as a condition which exists when there is significantly subaverage general intellectual functioning concurrent with deficits in adaptive behavior. Grossman delineated adaptive behavior as the "effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group." Santamour (1979) interpreted key factors in Grossman's definitions as including 1) intellectual functioning 2) personal independence and 3) social responsibility, all of which lag behind normal development.

Law enforcement officers and other agency personnel should become familiar with some of the important indicators of mental retardation. An important clue can be obtained by asking the person what school he attends or attended. A police officer undoubtedly would know the special schools in his area that are designed to educate people with disabilities. It may also be helpful to ask the individual what kind of classes he was in. An answer, such as special classes, EMR, or TMR classes, or other indications that were of a special nature should be noted. If he is retarded he may have trouble with the following tasks: identifying himself, reading, writing, identification of money by denomination, telling time, finding his number in the telephone book, giving you directions to his home, school or work. He may know how to get there on his own, but have difficulty telling someone else how to do so. He may be slow in his verbal or physical responses or have a speech defect. (Beilin, 1981)

Epilepsy...The symptoms of epilepsy vary. A grand mal seizure is a convulsion that comes on suddenly. The person will fall to the ground, may not be conscious, may have uncontrolled movements, may be confused and may be extremely fatigued or sleepy after consciousness returns. It is possible to mistake some of the above symptoms with drug or alcohol abuse, or heart attack. Even people who recognize a seizure frequently do not know what to do about it or do the wrong thing. There are several do's and don'ts. Do not attempt any treatment, there is nothing you can do to stop a seizure once it has started or begun; do not attempt to put an object or fingers in the mouth; do not restrain the person. The area around him would be cleared so that he does not injure himself when falling; do not call an ambulance routinely. Only if there is a severe bleeding problem or injury, or if the person does not come out of the seizure for more than ten minutes would medical intervention be necessary.

Do be sure the person having a convulsion is in a safe place; do loosen tight clothing and turn him on his side so that saliva may flow from his mouth; do stand by until the person has fully recovered from the confusion that sometimes follows a convulsion; do let the person rest if he wants to.

A petit mal seizure may simply be an unconscious repetition of sounds with blinking or vacant staring. (Beilin, 1981)

Cerebral Palsy...A person with cerebral palsy has had a permanent injury to the brain, usually occurring around the time of birth. Although cerebral palsy is not a progressive disorder, there is no cure. The symptoms, however, may be partially remediated by treatment. This type of brain damage may cause uncoordinated movements of limbs creating jerking motions and poor balance. Speech may be absent or unclear. The person may or may not be mentally retarded. It is possible to misjudge a person with cerebral palsy as being someone under the influence of an abuse substance. (Beilin, 1980)

Autism...A person handicapped by autism may be extremely withdrawn, not respond to other people, or make unusual or repetitive sounds and motions (like persistent rocking back and forth) it is unlikely that police officers with encounter such a person alone in the community. If they do, the autistic person may need their help in finding where he lives. (Beilin, 1981)

## Environmental Factors as Related to Mental Retardation and Other Disabling Conditions

Cultural and subcultural influences impact tremendously on the lives of individuals. Hurlock (1972) indicated that cultural influences in one's environment play an important role in the development of interests by controlling learning opportunities. The child is given opportunities to learn the interests which the group considers appropriate but is deprived of opportunities to develop interests which the group considers inappropriate. Also, Hurlock went on to identify three basic kinds of cultural systems in America: the general American Culture, social class cultures, and ethnic group cultures. Every social class and ethnic group produces a certain basic personality in the organization of the drives and emotions which are the deeper underlying elements of mental behavior. An earlier statement by Robinson and Robinson (1965) supports Hurlock's contention:

Of all the child's subcultural identifications, probably none is more important to the ultimate behavioral patterns he will acquire than his social class membership. Aims and purposes, abilities and achievements, all tend to vary significantly with social class (p. 472).

It can logically be concluded then that minority group children tend to grow up with identifiable patterns and interests resulting from the influence of their subcultural groups and these patterns may enhance or diminish the opportunities of the mentally retarded from these groups to be treated equitably in the criminal justice system.

Findings of the President's Committee on Mental Retardation (1980) revealed that most of the mild forms of mental retardation have no apparent physical cause, and may be due to adverse environmental conditions in early childhood. Using statistics from the American Association on Mental Deficiency, the Committee found that about 89% of all mentally retarded individuals are mildly retarded, and for practically all of the individuals in this category, there is no identifiable organic cause of conditions.

Santamour and West (1979) researched a large body of literature which revealed a strong correlation between the high rates of mental retardation and low social-class position, with its concomitants, including low occupational status, non-white race, slum living conditions, and other related disadvantaged conditions of life such as poor inadequate health facilities,

and unemployment. Santamour and West's research findings are supported by research findings of the President's Committee on Mental Retardation which indicated that the problem of mental retardation caused by environmental factors is usually ascribed to social-cultural and psychological factors, and requires prevention strategies using knowledge from the behavioral sciences instead of biomedical treatment which is usually appropriate for the prevention of severe retardation and is generally ascribed to physical causes.

It was determined at a 1977 National Multicultural Seminar on Mental Retardation among Minority Disadvantaged Populations held at Norfolk State University, Norfolk, Virginia that behavioral approaches must deal with the environmental causes of retardation among disadvantaged people. These included dealing with prejudicial attitudes and discriminating practices based on race, ethnic membership or social class. Such attitudes and practices contribute to the impoverished, deprived environment of many low income and minority people and have a part in the development of retardation in their children.

Most children born and raised in urban ghettos or impoverished rural areas are, according to findings of the President's Committee on Mental Retardation, minorities. These children are more likely to be diagnosed as mentally retarded than are children from middle class neighborhoods. A major reason is because of the generally deprived intellectual environment in which minority group children have been nurtured combined with numerous other problems linked with poverty, such as, poor nutrition, unhealthy living conditions, poor child care, family emotional problems, inadequate educational programs, and related aspects of deprivation.

Kramer (1976) pointed out that there does exist a substantial amount of information isolating several environmental factors as significant causes of mental retardation. He stated:

Poverty, malnutrition, and mental retardation form an especially unholy trinity, with an ever tightening chain of evidence connecting the first with the second and both with the third (p. 23).

Mental retardation especially in mild forms tends to be more devastating among disadvantaged social groups (PCMR 1976). In perhaps eighty-five to ninety percent of cases, mild retardation, not involving identifiable organic or physical cause, is associated with conditions arising from the environment such as poverty, racial and ethnic discrimination,

and family distress. Persons living under such conditions were found to have limited access to social institutions and agencies and restriction of opportunities in the social and educational areas in general. It has been observed that most children and youth who are committed to Departments of Correction across this country come from the same population in which most of the individuals with mild retardation are found.

The author of this paper served as principal of an institution for the retarded in Virginia from 1960-1963. It became apparent very soon that most of the clients had been placed in the institution after having been involved with the law. All of the individuals had been placed solely on the basis of one test - the Stanford Binet or the Wechsler Intelligence Scale for Children which was totally an inadequate assessment process. Many of the children were inaccurately labeled as retarded. Following development of individualized programs for each child based on adequate and appropriate assessment and his needs and interests, most of the children residing at the institution from 1960-1963 were able to return to their communities with supervision. Many returned to the public school system while others who had developed marketable and employable skills at the institution were placed on jobs by Vocational Rehabilitation and other agencies.

#### Unique Problems of Black America

One of the goals of the President's Committee on Mental Retardation as stated in the major report, *Mental Retardation: 76 Century of Decision*, Chapter 5, "Prevention: the Right to a Good Start in Life" is to reduce the incidence and prevalence of mental retardation associated with social disadvantage to the lowest level possible by the end of this century. It is expected that institutions of higher learning and other agencies will become actively involved in research, training and services to provide resources to prevent and alleviate mental retardation related to economic, educational, social and cultural disadvantage.

It is not expected that a panacea will be found for all problems of minority group people. However, it is expected that there will be a positive contribution to improvement of the quality of life of all people through the combined efforts of minority group persons and those from the dominant culture. It must be kept in mind that agency personnel working to improve the criminal justice system for all minority group persons must remain in the "mainstream" of activities yet maintaining a perspective relative to the special needs of each minority group.

The content of this section of the paper is centered around the unique problems of Black People in this country. The concept of Black Poverty is exceptionally unique. Why? Because it has grown out of a long history of America, and expresses itself in a subculture that is based and built on a foundation of social, economic, political (including legislative and judicial issues) and racial prejudice. Harrington (1962) emphasized that there is a uniqueness of Black Poverty as an impression, as a walk through the streets of the ghetto will reveal. Here, he said, one sees the whole personality behind the statistics including the fear, the food, the religion, and the politics of Black Poverty.

Looking at this surface of black life first, one gains a human perspective on the grim economic figures and occupational data that lie behind it.

Every black ghetto in America is different. Space will not permit a detailed delineation of each major black ghetto in this country. However, a few general problems and concerns will be highlighted which impact on the lives of blacks in America. These are as follows: 1) to be retarded is one thing but to be retarded, black and economically and socially disadvantaged is very difficult; 2) to be black in a ghetto is to participate in a culture of fear that goes deeper than any law for or against discrimination; 3) every black ghetto in this country is a center of poverty, of manual work, of sickness, and of every typical disability which America's underdeveloped areas suffer; 4) the ghetto is a place that is suspicious of all outsiders from the world of white America. It is stunted and sick, and the bread of its poverty has the taste of hatred and fear; 5) there is more obvious crime in the ghetto--the numbers game remains a community past time, street walking still flourishes, and drugs are easy to get; 6) the black in the ghetto is a second class citizen in his own neighborhood. One of the most surface impressions is that the ghetto economy is mostly white; 7) the black ghetto eats, drinks and dances differently from white America. It looks happier, but as in everything else about the ghetto, being poor has a lot to do with it; 8) one of the main components of poverty for blacks is a maiming of personality. This is generally true for the poor; it is doubly true for the poor black; 9) there is a curious advantage to having known poverty so deeply; one learns to overcome some of the difficulties and to survive; 10) ghetto survivors fear the criminal justice system because until the most recent years, the authority figure has been white such as policemen, judges, etc.

Thusly, it appears that a maze of intervening factors such as poverty, culture, nutrition and discrimination tend to transform conditions into complex problems for minority groups in general. Negative environmental factors are more difficult to cope with for minority group persons because they are already stigmatized by virtue of their socio-economic position.

The environment has a myriad of interrelationships with the development of the minority juvenile which may bring on pseudoretardation. The home environment and various types of historical problems lend little structure to the lifestyle of the minority juvenile.

In addition to this, the school environment is often difficult to cope with for the minority juvenile. The curriculum may be inappropriate, and the subject matter may be of no relevance to the lifestyle. Minority juvenile frequently drop out of school because of boredom. This gives minority juveniles too much free time to hangout with other drop-outs.

With the weak family structure in some instances and lack of basic value combined with too much unstructured time, minority juveniles are destined to eventually break the law. If incarcerated, the minority juvenile is released to the same environment with little or no marketable skills.

#### Environmental Factors Relating to Minority Group Juveniles Which Compound the Problems of Minority Retarded Offenders

There are some factors which are primary characteristics relating to mental retardation. According to Johnson (1980), these factors compound the problems of the black mentally retarded offenders. Johnson's study of the black juvenile offender seems to support the research of Santamour and West and others which address the white and non-white mentally retarded offender. Therefore, it would seem that the same environmental factors influencing the non-white offender also influence the black offender.

Johnson felt that there are particular factors relating to economically disadvantaged minority juvenile offenders which compound the problems. In addition, there are specific factors relating to mental retardation which further compound the problems of minority mentally retarded offenders.

Johnson's paper also supports the efficacy and cost effectiveness of comprehensive employment and training programs for black juvenile offenders citing the accomplishments of the JUMP Program. The Juvenile Unemployment Making Progress (JUMP)



Program was statewide with offices in Tidewater, Richmond and Northern Virginia. The JUMP Program provided a variety of services including assessment, work counseling, education, life survival skills courses, skill training, employability skill courses, social education courses, work placement and post placement counseling.

In general; Johnson found that the mentally retarded offender is trapped in a maze of victimizing circumstances from the point of entry into the system until his release. He is less able to plead his case; has less influence on his environment, and is less able to compete for habilitative programming. At parole hearings, he is neither a con-artist nor is he apt to be overly ambitious. He is not likely to enjoy the support and anticipation of his family in that there is little to come home to in the way of building and redirecting the life of a mentally retarded offender particularly a minority offender.

#### The Involvement of Institutions of Higher Learning

Should institutions of higher learning have a significant role to play in any process designed to improve the quality of life for the mentally retarded and other disabled persons? The answer is yes. Trainers of professional and other personnel can assist their trainees and other individuals in the community in dealing with the prevention/intervention aspects of environmentally related retardation which is so prevalent among mentally retarded juveniles in the criminal justice system.

Institutions of higher learning can initiate and develop outreach programs of training associated with community service settings which focus on the improvement of living. In many instances, this can be done through graduate programs which are already established or via continuing education programs. For example, as a result of seminars, institutes, and/or workshops, a training handbook for law enforcement officers could be planned in order to assist personnel in their work with mentally retarded and other disabled juveniles. This handbook should include 1) a definition of a developmental disability in general; and 2) definition of the various types of disabilities such as mental retardation; epilepsy, cerebral palsy, and autism. Persons with the three latter conditions are equally misunderstood by personnel in the criminal justice system.

## Resolving the Issues-The Role of Institutions of Higher Learning

Personnel from institutions of higher learning can assist in the development of programs of primary, secondary and tertiary prevention to educate and to change attitudes of the public and to assist in resolving issues impacting on the ability of citizens to fully develop their potential. The impact of these programs should provide the mentally retarded and other disabled persons with full opportunity to share the routines of daily living which the average citizen experiences. If disabled persons are to gain full acceptance in society (including the criminal justice system) they must live, work and spend time in the community.

Public attitudes must change to give all disabled persons greater acceptance and advocacy. Through ignorance and fear, some members of the public mistakenly feel or believe that a disabled person is a threat to the safety of the community. Consequently, the police officer may be called upon to handle their complaints. As disabled people lead more active lives in the community, they will increasingly come in contact with police officers. There will be instances when disabled people will require the help and protection of law enforcement officers. Developmentally disabled persons will also occasionally break the law and criminal justice personnel will have to intervene.

Promotion of appropriate programs by institutions of higher learning can assist police officers in 1) gaining information about developmentally disabled persons and the availability of community resources; and 2) handling matters relating to people who are developmentally disabled by balancing the public's demands for service with consideration for the handicap and culture of the disabled person and his rights as an individual. Gaining knowledge as described should enable police officers to more satisfactorily serve the interests of the disabled, the requirements of the law, and the community.

### Suggested Activities

Cited below are several activities which institutions of higher learning can design to enhance the skills of criminal justice personnel.

- 1) Assemble materials for development of annotated bibliographies on the mentally retarded and other disabled in the criminal justice system.

- 2) Develop and write training packages which preservice and inservice criminal justice personnel can use for independent study on the topic "Dynamics in working with the mentally retarded and other disabled juveniles in the criminal justice system."
- 3) Encourage preservice and inservice teachers, and criminal justice personnel to develop and write courses of study with manual and training packets on the topic of juveniles with developmental disabilities in the criminal justice system, including minorities.
- 4) Prepare varied curriculum materials to educate and train preservice and inservice personnel to deal with the health, education and welfare problems of disabled juveniles in the criminal justice system.

#### Concluding Statement

In order for colleges and universities to successfully meet the growing challenge brought on by the serious consequences of mental retardation involved in the criminal justice system, the loss of human potential because of poverty, racial and ethnic discrimination and family stress, they must be willing to maximally utilize all personnel and fiscal resources available to provide assistance in the development of systematic and comprehensive programming. The programming should be designed to disseminate information on tertiary prevention of mental retardation, in particular, to preservice and inservice criminal justice personnel and to others concerned in communicating information to lay citizens and professionals indirectly related to the work of the criminal justice system.

Specifically, there appears to be three basic questions posed by the challenge: 1) what are the promising strategies which trainers of criminal justice personnel and other professional personnel (health, social services, etc.) may use which will influence regular school, college and university personnel to be more effective in serving the handicapped offender population; 2) how can professionals of institutions of higher learning experienced offender and other agencies assist in the promotion of promising strategies and cooperative training programs designed to enhance the skills of criminal justice personnel at all levels; and 3) how can personnel from institutions of higher learning organize to assist each other in preparing criminal justice personnel and other health related personnel to effectively motivate handicapped offenders.

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**Role of Institutions in Higher Education in Prevention and  
Minimizing the Occurrence of Morbidity, Mortality and  
Mental Retardation Through Teenage Pregnancy  
Intervention and Prevention**

by

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The Norfolk Adolescent Pregnancy Prevention and Services Project is a comprehensive community-based linkage approach to the increasing local problem of adolescent pregnancy. Norfolk has a 93.1 adolescent pregnancy rate per 1,000 females aged 15 - 19 years. This rate is significantly higher than the United States rate of 53.7 for the same age group. At present, it is the only comprehensive service program available to serve this population. This project was developed through a linkage of community agencies: Norfolk State University, Norfolk Department of Public Health, Norfolk Division of Social Services, Norfolk Public Schools, and Planned Parenthood of Tidewater, Virginia.

Services are provided by the above agencies to adolescent males and females determined to be high-risk for becoming involved in an adolescent pregnancy; pregnant adolescents; and adolescent parents. The existing community resources serving this adolescent population prior to the NAPPS Project were fragmented and insufficient. The major unmet needs included lack of infant day care facilities, inadequate transportation, lack of follow-up after pregnancy, and inadequate prenatal care. A major goal of the program is to reduce the number of pregnant adolescents who receive late or no prenatal care. Research has shown that mortality and morbidity can be drastically reduced with adequate health care and community resources.

The goals of the projects are to provide and coordinate community services for adolescent parents to assist their functioning as family and community members; to prevent repeated and unwanted pregnancies in a potentially high-risk individual and population through comprehensive community services; and to improve the physical and emotional outcomes of the pregnant adolescent by providing and coordinating community services.

The problem of teenage pregnancy is a health problem, as well as social, educational and economic problem; therefore, the solution must be multifaceted. The approach must involve all sectors of the community that deal with adolescent health, welfare, and development.

The City of Norfolk, Virginia, with Norfolk State University as lead agency, has developed a linkage type system, the Norfolk Adolescent Pregnancy Prevention and Services Project, to impact upon the complexity of problems facing adolescent parents, those who are pregnant and those at risk of pregnancy. It has been demonstrated that direct services and linkages that result from an organized system can result in more efficient use of resources and staff, improve the identification of problems, increase accessibility to care and improve the quality of care.

The need for some comprehensive system of linkages of services for pregnant teenagers in Norfolk has been recognized by the various agencies which deliver services to adolescents and to the community. During the past year, there has been a large delivery information on teenager pregnancy, sexuality, birth control, and sexually transmitted disease. Each agency cooperating in the linkage system has responded to requests from the community, either jointly or individually, dependent upon the need. Those making requests include State, district and local agencies, civic groups, professional groups, religious bodies, mass media, and individuals. During the past year, two professional organizations have hosted conferences in health, social and educational institutions represented. One agency, alone, has presented programs to 270 groups at their request with 12,106 people in attendance from teenagers to professionals. Teens have also presented panels. Local radio and television stations have aired programs with telephone hotlines available for questions. Programs have varied from one-hour presentations to ongoing training sessions.

It is evident in Norfolk that teenager pregnancy remains to be the major cause of school dropout, with the consequences of unemployment, under-employment, and repeated early child birth. Infant morbidity and mortality rates are high, resulting from lack of physical development, primary and prevention care, and nutrition. The increasing number of out-of-wedlock births as well as teenage divorces resulting from developmental, parental, and marital stress perpetuate cycles of instability and abuse in families.

The purpose of the Norfolk Adolescent Pregnancy Prevention and Services Project is to provide coordinated linkages of complete services for pregnant adolescents and their families, for adolescents who are at risk in order to reduce the number of pregnancies among teenagers, and to adolescent mothers.

#### Overall Goals of the Project

- 1) To provide comprehensive community services to improve the health, educational, social, emotional, and vocational functioning of pregnant adolescents and their families in the Norfolk, Virginia area.
- 2) To provide comprehensive community services to assist in preventing initial and repeat pregnancies among adolescents.
- 3) To provide coordination and administration of a network of community agencies involved in the delivery of comprehensive services to adolescents who are parents, at risk of pregnancy, and pregnant to increase accessibility and utilization of existing community services.
- 4) To develop increased capability in agency staff and volunteers in recognizing and delivering services dealing with problems related to teenage pregnancy.
- 5) To provide a single school setting with day care and meals for pregnant adolescents.

Through the coalition of community agencies, the following services are provided through the project:

- 1) pregnancy testing, maternity counseling, and referrals;
- 2) family planning services;
- 3) primary and preventive health services, including pre and post-natal care;
- 4) nutrition information and counseling;
- 5) referral for screening and treatment of sexually transmitted disease;
- 6) referral to appropriate pediatric care;



- 7) educational services in sexuality and family life, including sex education and family planning information;
- 8) adoption counseling and referral services;
- 9) referral to other appropriate health services;
- 10) educational and vocational services;
- 11) child care services;
- 12) consumer education;
- 13) counseling for extended family members of pregnant teens;
- 14) transportation;
- 15) recreation

Additionally, the project provides the following support services in order to insure effective delivery of core and supplemental services and to secure data which may be used by community agencies in planning and conducting programs for adolescents: 1) coordination; 2) staff development; and 3) research.

A very critical and unique feature of the proposed project is that the lead coordinating agency is an institution of higher education. The University, working collaboratively with other institutions and agencies in the community, brings to bear on the problems of teenage pregnancy significant resources from the Schools of Social Sciences, Education, Health Sciences and Services, and Social Work, the fiscal management team, community research specialists, and professionals in the area of resource coordination.

The community agencies who have primary membership in the collaborative effort for prevention and services for adolescent pregnancies are listed below:

Norfolk Community Hospital  
Norfolk Public Schools  
Norfolk Redevelopment and Housing Authority  
Norfolk Division of Social Services  
Norfolk State University  
Planned Parenthood of Tidewater, Virginia, Inc.  
Southeastern Tidewater Opportunity Project

### Service Provision

Services are offered to adolescent clients under three component areas: 1) at-risk of pregnancy; 2) pregnant; and 3) adolescent parents. Males as well as females are served in two of the three components.

The at-risk component is the area of service provided by Planned Parenthood and the Norfolk Redevelopment and Housing Authority. Planned Parenthood has provided the core services of education in sexuality and family life to more than 300 individuals in individual and/or group settings. Other core services currently provided are family planning services and counseling, pregnancy testing, nutrition information and counseling, sexually transmitted disease screening and referral, educational referrals, adoption referrals, problem pregnancy counseling, and other health services. Some supplemental services have also been rendered directly or by referral. These include child care and education and counseling for the extended family.

For its part, Norfolk Redevelopment and Housing Authority has been conducting Job Readiness Training groups. In these groups, participants learn the importance of filling out an application properly, how to develop good work habits, and how to conduct themselves properly in a job interview. There are educational services which include, in some cases, job training and a GED program. Supplemental services provided are consumer education and consumer homemaking.

The performance of these services for adolescents at-risk affects the accomplishment of the goals for this component of the Project. They are to provide comprehensive community services to help prevent unwanted teenage pregnancy and to enhance coordination of the informal network of the NAPPS Project and its major functions. Services are provided directly or through referral, and it is effective referral which builds and enhances the community agency network.

For the pregnant adolescents in NAPPS, core services are provided, for the most part, by Norfolk Public Schools, Norfolk Public Health Department, and Norfolk Division of Social Services. Through the Coronado School for pregnant teenagers, Norfolk public school students who are pregnant can receive several services at a single site. This is possible due to the presence of the nurse educators from Norfolk Public Health Department along with the school personnel. The school system provides educational services-academic and vocational-including counseling, transportation, and a special health curriculum taught by the nurse educators.

The health curriculum taught at Coronado School differs from that taught at regular public schools in Norfolk. It is designed especially to meet the needs of Coronado's student population, pregnant adolescents. The subjects covered in the curriculum are Pre-natal Care, Labor and Delivery, Post-partum Care, Birth Control Methods, and Child Care and Development. The latter topic is also addressed in the Home Economics class at Coronado.

In addition to the health curriculum, nurse educators also follow the progress of the student's pregnancy by telephone and home visits. Follow-up contacts continue after delivery.

Transportation to the school during the past year was provided by the school through the distribution of bus tokens to the students.

The goals of this second component for pregnant adolescents are to improve the physical and mental health of the girls and their infants by providing direct service and coordinating relevant community services; and to improve the emotional and social outcomes of adolescent pregnancy through comprehensive community services. The health information, education, referrals, and monitoring that the pregnant participants received assistance in the improvement of their pregnancy outcome physically. The academic and vocational education, job training, individual, group, and family counseling, and referrals received addressed the goal of improving the emotional and social outcome of adolescent pregnancy for our participants.

The third component of the project is directed toward adolescent parents. They receive assistance predominantly from the NAPPS Counselor/Advocates at the Division of Social Services. The singular goal is to provide and coordinate community services to adolescent parents, thus assisting them to become contributing individuals in the family and community. Individual, family, and group counseling is provided, along with education in parenting skills, family planning, and appropriate referrals for additional services needed. Teenage parents have a multitude of needs for themselves as teenagers and in their role as parents. The diversity of needs which NAPPS can meet directly is increased by working with other community agencies. This serves to help accomplish our goal, which is essentially to see that adolescent parents and their offspring have a better chance at a good life.

From October, 1980 to June, 1981, the NAPPS Project provided a full range of services, directly or by referral. Categorically, the number served include the following:

Non-pregnant Adolescents	=	231
Pregnant Adolescents	=	176
Partners of Pregnant Adolescents	=	44
Adolescent Parents	=	45
Infants	=	19
Extended Family	=	42
Other Agency Staff	=	96

#### Extended Community Involvement

The NAPPS Project has begun building a resource center to include printed materials and audio-visual materials relevant to adolescents, adolescent sexuality, adolescent pregnancy, sexually transmitted disease (STD), infant care, and other programs for teenagers who are at risk, pregnant, or parents. Such a center would be essential to the effective functioning of the NAPPS staff. Some of its contents can also be made available to members of other community agencies. In so doing, the objective is to enhance the network building aspect of the project.

The Role of Institutions of Higher Education in Preventing  
and Minimizing Mental Retardation

by

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Ecological concerns, coupled with increasing shortages of natural resources and shifting sources of political power have forced institutions of higher education to raise critical questions about the value of their contributions to the betterment of life. Of special interest is the capability of colleges and universities to demonstrate respect for the value of life and for human variability. The importance associated with concern for human potential is demonstrated in endeavors of colleges and universities in their teaching, research and community service activities. It is critical therefore, that institutions of higher education use these functions to play a major role in preventing and minimizing the impact of mental retardation, a condition which affects millions of Americans.

The Institution's Role With It's Student Population

In discussing the role of an institution of higher education in preventing and minimizing mental retardation, attention is usually created around the crucial matter of education of those professionals who would have to handle prevention and training. Actually, universities have another equally important role--that of educating its total student body so that the graduates are informed citizens and caring human beings who value diversity but are willing to work to eliminate useless loss of human potential.

In efforts to prevent and minimize mental retardation, institutions of higher education must plan for their student population specific experiences designed to help students function effectively as informed citizens and advocates for prevention of mental retardation and for measures to minimize its effects on the lives of children.

Statistics indicate that four to six percent of the population suffers mental retardation. A much larger number of persons are impacted when it is realized that immediate families and extended families are affected. (President's Committee on Mental Retardation, 1976, p. 6). Chances are good

that at least one student in every university class will experience a personal relationship with a mentally retarded person in his or her family or community. Many of the university students will become leaders. Influential community members, and even local, state or national politicians. They will be in positions to make decisions which affect the lives of many people. The need for them to be aware of this problem which affects million of Americans should be addressed in a general education facet of their university program of studies. That is to say, universities which seek to educate future leaders and informed citizens should prepare their students to be cognizant of and committed to work to prevent and minimize retardation in the nation's children.

#### Programs for General Student Population

There are a number of approaches which could be taken by institutions to assist their total population of students in developing awareness and knowledge about mental retardation.

Course Requirement. Uppermost among these approaches is the infusion of information in general education courses which all students must take. Topics which might be included are: causes of mental retardation, the status and role of the retarded person in society, environment problems related to mental deficiency, biomedical problems of mental retardation relating to human reproduction and processes of early development, public health provisions for intervention and prevention of mental retardation, as well as political and economic issues related to mental retardation.

University faculty may secure assistance in developing appropriate instructional materials from the Department of Special Education on their campuses or from a number of organizations which specialize in services to mentally retarded children and adults.

General University Seminars and Program. General seminars which seek to involve students in discussions about causes of mental retardation and prevention measures may be planned by the Seminar and Forum Committees of the universities or by task forces appointed by the vice president for academic affairs. These activities may feature physicians, psychologists, parents of mentally retarded persons, public policy makers, and educators. Additionally, seminars may feature representatives of organizations such as local and state chapters as well as the national Association for Retarded Citizens, the Council for Exceptional Children, National Foundation March of Dimes, the Urban League, local Equal Opportunity Program Agency, and the American Association on Mental Deficiency.

A significant general university seminar which was hosted by Norfolk State University was a national conference on Prevention of Mental Retardation Among Culturally Disadvantaged Populations held in the fall of 1977 which was sponsored by Norfolk State University and the President's Committee on Mental Retardation. This conference was comprised of several seminars and workshops resourced by renowned scholars. The conference was attended by the students in the general population who were able to enhance their sensitivities and increase their knowledge of mental retardation. Additionally, of course, other university constituencies benefited from the conference. They included students preparing for helping professions, community professionals and lay persons, as well as professionals from across the country.

Through independent study courses, free reading periods, and special assignments, students may elect to learn more about the nature and causes of mental retardation. Reading lists may be posted in convenient places around the campus so that they are accessible to students. Special self-instructional modules on selected topics may also be made available to interested students. Additionally, mini-courses sponsored by the counseling personnel may be planned for dormitory sessions and special interest groups.

Activities of Clubs and Special Groups. Often student organizations select community groups or individuals to adopt for special service projects. Faculty sponsors of such groups may be supplied with resource lists and data banks of information about community agencies which work for the prevention of mental retardation or which provide services to mentally retarded citizens. One of the most effective ways to help students develop compassion for and awareness of the needs of retarded children and adults is for the students to have first-hand experience with retarded persons as they study relevant research and information about the problems.

At Norfolk State University, such an activity worked effectively for the Gamma Nu Chapter of Sigma Gamma Rho Sorority and the campus chapter of the Council for Exceptional Children. These two groups joined a graduate chapter of the sorority in the sponsorship of Project Reassurance. This project's purpose was to prevent mental retardation and other birth defects which often result from teenage pregnancies through a series of seminars for teenagers in church, civic, and social groups.

Use of Films on Mental Retardation in the Film Series. Excellent films, as well as video tapes, filmstrips and recordings are available through which students may get an overview of the types of mental retardation, current research and research accomplishments, and the importance of early diagnosis and adequate community facilities in the treatment and prevention of mental retardation. Colleges and universities should insure availability of such films for general student use.

Other Activities. Other types of activities which may be used to help university students develop an information base about mental retardation are listed below:

- Articles in the student newspaper
- Attractive bulletin boards and displays featuring statistics and other data on prevention of mental retardation
- Courses on exceptionalities available as electives
- Newsletters designed especially to present information on federal legislation related to the handicapped
- Special student lecture series

Institutions of higher education serve many difference populations in their efforts to carry out their major functions of teaching, research, and community service. The primary population for an institution of higher education is the student body enrolled in its programs. It is reasonable to expect, therefore, that all colleges or universities attempting to change public opinion, would include in their strategy models, considerable attention focused on their student populations.

#### Preparation of Human Service Professionals

In addition to their general responsibility to their student population, institutions of higher education have particular obligations to prepare those students in human service professions for roles in the prevention and treatment of mental retardation. The professionals in this group include all of those who are prepared to render direct services to people. Examples of these professions are teachers, doctors, social workers, psychologists, counselors, and speech pathologists.

The curricula for the preparation of human service professionals should include advanced content and experiences which will interest the cognitive base and heighten the affective posture of these professionals who are likely to



render direct service to mentally retarded persons and their families. It is important that persons prepared for these professionals understand the nature and etiology of mental retardation, characteristic behaviors of mentally retarded persons, treatment of biomedically, socioculturally based mental retardation and services required for mentally retarded persons and their families.

Inasmuch as the occurrence of retardation is not bound by ethnicity, income, region, or such artificial demarcations of human beings, it is important that the curriculum for preparation of human service professionals give significant attention to cultural and other human diversity. The curriculum should provide experiences for the students to evaluate their own value systems, acquire additional knowledge about the influence of cultural parameters, and demonstrate proficiency in serving persons within the context of the diversity of cultures in the society.

It is important that human service professionals learn that no one profession can unilaterally prevent the occurrence of mental retardation nor meet all of the needs of mentally retarded persons and their families. Consequently, interdisciplinary approaches must be taken to this population. Professionals from the different disciplines must function cooperatively to serve this population. More importantly, these professionals should have had some transdisciplinary training. That is, they should each have had some education and training in at least one other discipline of human service. Thus, it is incumbent upon the institutions of higher education to prepare professionals to work effectively in the milieu.

The mechanisms for this preparation of students in human services are not unlike those utilized to provide the more limited education of the general student population. Some of the previously described modes which should be used include courses, seminars, and self-instructional modules. The instruction may be an integral part of the program which leads to the degree sought or it may lead to a concentration within the degree.

Numerous seminars, courses, etc. have been sponsored by Norfolk State University as part of the preparation programs for human service professionals. The Special Education Department has an example of one program at Norfolk State University which seeks to prepare specialists to contribute to

the prevention and amelioration of mental retardation. Some of the objectives it sets for personnel preparation serve as an example of appropriate program content. They are:

#### OBJECTIVES

- I. Display understanding of the nature and needs of exceptional children recognizing that this population has the same rights to acceptance, understanding, and education as other populations.
- II. Demonstrate ability to identify, screen, diagnose, and evaluate student performance and make appropriate placement decisions giving evidence of sensitivity to cultural and ethnic differences.
- III. Develop and cultivate personal traits which will lead to quality performance in the teaching profession and to effective and efficient participation in civic and community affairs.
- IV. Demonstrate ability to participate as a member of a multidisciplinary team in the development of curriculum materials and teaching strategies for students who need special services.
- V. Display proficiency on standardized examinations which seek to measure preparedness for the teaching profession and for graduate study, e.g., National Teachers Examination, Graduate Record Examination.
- VI. Demonstrate effectiveness, flexibility, and adaptability in planning for and implementing class activities for the handicapped.
- VII. Evidence inculcation of good personal and professional practices by engaging in self-evaluation and self-correction.

#### The Institution's Role in Research

One of the major roles institutions of higher education can play in prevention and minimizing mental retardation is in the area of research. Not enough is known about mental retardation. Not enough is known about the best applications of available research.

A combination of factors have worked to contribute to the elevation of research as a critical feature of university activities. The vista of research has broadened. For example, "research for the sake of research" is no longer in vogue. Such research is classified as "high risk" research; the results of which are limited in scope and practicality.

Universities are well equipped to respond to the needs of external agencies that seek the services of universities through the application of research conducted by them. Universities have critical mass of faculty members, most of whom have had research training. In addition, many faculty members have had research experience conducive to the needs of agencies.

Having access to classrooms, faculty members have a laboratory for testing their hypotheses. Those institutions that have access to such agencies as public school systems also have laboratories for teaching and research.

With the advent of P.L. 94-142, there has been continuing need for the reform of teacher preparation programs. Schools of education have been bombarded with the need to prepare teachers who can function in a setting which features the "mainstreaming" of pupils into an educational atmosphere which connotes "the least restrictive environment." The continuing reform of teacher preparation programs is a result of research development. For example, the knowledge, skills and attitudes deemed appropriate for the new cadre of teachers for "mainstreaming" are continuously being refined as a result of research endeavors.

Discussions relative to students with handicaps resulted in the identification of clusters of competencies of capabilities in the following content area (Reynolds, 1979): Curriculum, Teaching and Basic Skills, Individualized Teaching, Exceptional Conditions, Conferral and Referral, Student-Student Relationships, Professional Values, Professional Interactions, Teacher-Parent-Student Relationships, and Pupil and Class Management.

George Denemark (1979) has indicated that "research and technological developments during the past decade have improved our chances of success in redesigning teacher education to meet current educational trends." He alluded to research on attitudinal change and research conducted in segregated education environment prior to mainstreaming.

"The research demonstrated that handicapped individuals can learn, rather than documenting the reasons for their failure. It indicated that early identification and treatment can prevent many handicapping conditions, that special techniques and materials, such as engineered classrooms, diagnostic-prescriptive teaching, and objective-based instruction, can facilitate learning in exceptional individuals. And it provided a new perspective on the reentry of such persons into public education system--individuals with real potential for growth--if the educational system will use the results of research to help them realize the potential."

Other areas of research may be addressed by university researchers also. Examples of problems to be studied include: 1) Appropriate use of knowledge of genetics and human reproduction as a means of minimizing the birth of mentally deficient children; 2) Enhanced knowledge about restoring and repairing brain tissues; 3) Effective means of eliminating environmental hazards; 4) Increased information about learning and adaptive development and better applications of supportive technologies to increase the independencies; 5) Improved public health provisions and effective ways to teach citizens to use available provisions; 6) Better service and delivery; 7) Nutritional research on the nature and effects of malnutrition on the development and functioning of the central nervous system.

Although a significant volume of research on mental retardation has already been generated, the impact of the research on public policy has not met expectations. (Baumeister, 1981). A valuable service may be served by universities in the area of evaluating research on mental retardation and relating it to public policy and to public practice. As identified by Baumeister (1981) research is needed which takes a longitudinal look at the programs for preventing and minimizing mental retardation; studies of the effectiveness of interagency cooperation are needed; research should be done to determine which particular problems should received the major funded research thrusts at a given point in time; systematic program evaluation features based in scientific criteria are needed.

### The Institution's Role in Community Service

Institutions of higher education are strategically situated to promote the prevention and treatment of mental retardation through their direct service to the general population. The leaders of most of these institutions recognize the significance of the involvement of their personnel in the fabric of the local community. The vehicles for the delivery of service to the larger population may be conveniently grouped in the categories a) service projects, b) conferences, and c) publications and other products.

Service projects are specific efforts which are designed to respond to identified need in the geographical locales of the institutions of higher education. Such efforts generally are of fixed duration addressing identified objectives. Examples of service projects implemented at Norfolk State University which were available to mentally retarded persons and their families include a weekly storyhour for children, a tutorial program for children with learning problems, an after-school recreation program, a health fair, and income tax return counseling. These projects generally provide ideal preservice undergraduate or graduate level practice for the students.

Conferences sponsored by institutions of higher education are in attractive and oft used mode of serving the general population. Conferences may be of varied duration contingent upon the perceived need of the particular group to be served. The conferences may be scheduled for specific populations. They may include groups in the lay public such as men and women wishing basic information on mental retardation, citizen advocacy training or volunteer training. Professionals from varied disciplines may seek certification or license renewal. Current information can be imported on topics such as those identified for the lay public and also on preventive and ameliorative techniques specific to each discipline.

Options should be open to participants to receive university credits or continuing education units for their participation on accordance with the prescribed guidelines for the awarding of such credits. The degree of latitude in the conference design and the breadth of topics that are addressed dictate the likelihood that the conference format will respond to be varied needs and interests of the community served by the institutions of higher education.

Another means by which institutions of higher education can serve the community is through the dissemination of publications and other products which will educate the public. Printed publications may be comprised of or based upon scholarly research which has been conducted by the faculties of the institutions. Other publications may give practical pointers to the general population. Other types of products may be disseminated such as films and learning activity packages which will provide information to the general population.

Norfolk State University has enjoyed a long history of service to its lay community. Courses, seminars, and other activities are frequently held with this distinct purpose. One example is a conference on rural minority persons under the sponsorship of the School of Social Work. The focus of this conference is an exploring the issues related to needs of and services for minority group persons, particularly black Americans, who live in rural communities. Attention to factors surrounding mental retardation are included.

A major undertaking by Norfolk State University, in cooperation with several social service agencies and the local education agency is the Norfolk Adolescent Pregnancy Prevention project. This is a joint effort to prevent unwanted pregnancies and the frequently resulting high number of birth defects among teenage girls. There are education and service components for both those who do not and those who do have children. This project will permeate the community with information and assistance which will help to prevent and ameliorate mental retardation.

The activities and programs at Norfolk State University have been cited as examples of ways by which institutions of higher education can engage in minimizing the occurrence of mental retardation. The foci for these efforts are in the programs for the general student population, the preparation of students for human service professions, research endeavors, and service to the community.

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### Summary

Prevention of mental retardation encompasses a broad area of endeavors, including technological competencies, societal resolutions, and educational processes. Efforts regarding the prevention of mental retardation are often classified as primary, secondary or tertiary depending largely on the time and method of attack.

Accomplishments in prevention have been documented. In Massachusetts, for example, it was usual in the early 60's to have 3,000 to 5,000 instances of rubella (German Measles) reported in the general population per year with about 50 children born with serious sensorineural deafness because of their mother's involvement during pregnancy with this infection. This increased in subsequent years. However, by 1980, 99% of all children entering public school in Massachusetts were immunized for rubella. No more than one instance of congenital rubella has been identified in each of the last two years.

Allen C. Crocker included a number of selected documentations which give cause of encouragement. Since most of the cited cases were of a highly specialized nature, more attention is needed in cases where cause and effect are not so clear.

Higher education's role in the prevention and minimization of mental retardation is approachable from a variety of viewpoints. Among these, universities are expected to do research for the common good of society. Basic research in this area is greatly needed. Also, the mission statements of various colleges and universities include clearly defined objectives of providing society with well-informed, productive and satisfied citizens. The college's role in this area of mental retardation should be self-evident in these objectives. It is even more obvious how the objectives of medical schools, schools of social work, not to mention schools of education with their departments of special education, would have primary objectives in the area of mental retardation. The public service mission may be more complicated depending on the kind of service involved.

Tertiary Prevention aimed at minimizing the long term disability and mitigating some of its effects. Two vehicles were cited. P.L. 94-142 and Multicultural Education.



P.L. 94-142 provides "a free and appropriate education." Since appropriate education is defined to include individual education program (IEP's), handicapped children enrolled in the regular, as well as a special education classes will have IEP's. Also, under the full educational opportunity goal, the legislation specifically provides that state and local agencies shall take steps to ensure that handicapped children shall have available to them the variety of programs and services available to non-handicapped children. This include the vocational programs on the various levels.

Multicultural Education assumes that handicapped children, who are members of racial and ethnic minorities suffer the same indignities as other handicapped individuals. There are special and unique problems that these individuals face because of the lack of awareness of cultural differences. Handicapped people, and especially ethnic minorities who are handicapped have basic psychological needs such as a need for self-esteem and a high evaluation by others. The self-image of the handicapped minority seeking help is deeply affected by the manner in which they are treated.

It was pointed out that the challenge facing educators are: a) motivation of culturally different children, b) understanding cultural background and its role in education, c) selecting programs and instructional materials which are effective in meeting the needs of the culturally different, d) developing effective teacher education programs and e) involving parents and the community in development enhancement programs for all ethnic groups.

In the past two decades the role of universities in the field of mental retardation has expanded considerably in the area of research, training and program development. There has been accelerating interest in prevention of mental retardation. University Medical Centers have important roles in primary prevention and in early intervention, both in research and training. Problems of improved access to health care and prenatal care, as well as early intervention, and treatment programs have become a societal problem.

Approaches by institutions to assist their populations of students in developing awareness and knowledge in the area of mental retardation and prevention should consider: course requirements in general education and major concentration; seminars and similar programs, special group and club activities which could relate to the outside community; movies and film series; preparation of human service professionals; basic research; community services; and projects.

One example of a project, included in this monograph, was a joint endeavor by Norfolk State University and the City of Norfolk which had as its aim: to minimize the occurrence of morbidity, mortality and mental retardation through teenage pregnancy intervention and prevention. A number of community organizations could be involved in such an effort with leadership furnished by the university.

Many ideas have been generated in relation to development of appropriate programs for the handicapped offender. Cynthia Hedge (1979) researched this area and concluded that the following represent a few of the areas in which adaptations can be made to meet the needs of the handicapped offender. These areas are 1) interagency task forces, training programs, pre-trial-pre-sentence evaluation, indeterminate sentencing, institutional education, vocational training, counseling, residential living, pre-releases planning and parole and community based training.

Institutions of higher learning have an indispensable role in assisting teachers responsible for the educational development of the inmates by offering courses in special education, reading, mental retardation, multicultural education, and the other three major developmental disabilities, cerebral palsy, autism, and epilepsy.

#### General Recommendations to Colleges and Universities

Universities faculties should:

- 1) Secure assistance in developing appropriate instructional materials from the departments of special education on their campuses or from organizations which specialize in services to mentally retarded children and adults;
- 2) Play a key role in identifying causes of mental retardation and distribute information among its students and patrons;
- 3) Take leadership in developing projects with community organizations for prevention and treatment of mental retardation;
- 4) Provide coordination and administration of a network of community agencies involved in the prevention and treatment of mental retardation;

- 5) Offer some training in the prevention and education of the mentally retarded whether or not there is a department of special education;
- 6) Have appropriate schools and departments to do needed research in the area of prevention and treatment--medical schools, Sociology, Education, Special Education, psychology, etc.;
- 7) Integrate the program of prevention in appropriate general education courses as well as related professional courses;
- 8) Use federal programs such as the Dean's Grant to utilize the facets of P.L. 94-142 to work with all teachers in the area of mental retardation;
- 9) Relate in appropriate ways the multicultural education program to prevention and treatment; and
- 10) Evaluate teacher education programs to determine weaknesses in the area of prevention for all teachers and inculcate appropriate units or courses where needed.

**Special Recommendations to Achieve Goals  
In Tertiary Prevention Programming**

- 1) Special education programs and regular education programs should be linked in order to provide educational offerings to exceptional children as recommended in the Council for Exceptional Children Policies Commission Statement (1972).
- 2) School systems should continuously be encouraged to achieve their goals of a) having their personnel to work and plan ways for handicapped children to remain in the regular grades with supportive services to assist regular teachers involved in the mainstreaming process; and b) planning ways and means to manage disciplinary and other adjustment problems.
- 3) State Departments of Education should begin implementation of change which may eventually lead to soundly based performance based teacher education certification programs for all areas of instruction.
- 4) Teacher education faculties should accept the following challenges: a) determination of competencies which students should have upon

- completion of their courses; b) identification of the kinds of teaching styles found among various faculty members and develop activities to effect necessary changes in teaching styles to facilitate development of performance based programs. Opportunity should be provided faculty to renew or change their techniques and skills; and c) participation of faculty in determining their competencies and modification of their roles in order to assist pre and in service teachers in meeting the challenges of Public Law 94-142 in the classroom.
- 5) Prospective teachers of exceptional children should receive cross-categorical training involving other disciplines in colleges and universities. Professional education courses should be taught in regular elementary and secondary education departments. General education courses should be taught by general education faculty members, and courses in Physical Education by professors and instructors in the Department of Physical Education. Vocational technical courses should be taught in the Department of Vocational Technical Education.
  - 6) Special education personnel should assist in developing programs designed to assist all regular college personnel in developing necessary techniques and skills for assisting their majors in undertaking the tertiary education basis. Cooperative efforts between special education and vocational education personnel are essential in order to provide effective vocational education opportunities for the handicapped.
  - 7) There must be unique innovations in multicultural education programming in order to assist educators to all levels in meeting the unique needs of handicapped minorities. Cultural differences must be a determinant in planning regular and vocational programs for minority group children.

#### Recommendations

The President's Committee on Mental Retardation should: 1) continue to provide technical assistance to colleges and universities in the techniques of the application and use of present knowledge available in the various areas of prevention such as primary, secondary and tertiary prevention; 2) continue to encourage institutions of higher learning to place emphasis on the concept of social-psychological prevention wherever appropriate in their curriculum patterns; and 3) indicate to institutions of higher learning their responsibilities in

preparing inservice and preservice personnel for work with the juvenile and adult mentally retarded offenders in the criminal justice system.

The Secretary of the Department of Health and Human Services should: 1) encourage all appropriate Health and Human Service interdepartmental personnel to assist institutions of higher learning in development and strengthening their personnel preparation programs in the areas of health and human services; 2) encourage appropriate interdepartmental personnel to assist personnel in institutions of higher learning in identification of the issues surrounding the provision of services on a humane developmental model-general and specific. Among the general issues identified by the President's Committee on Mental Retardation are those related a) the elimination of practices contrary to developmental goals; b) the use of generic service systems versus separate provision of services; c) organization and administration of services delivery, including eligibility and access, and d) public responsibility, fiscal support, and accountability; 3) encourage interdepartmental personnel to assist appropriate personnel in institutions of higher learning in understanding the concept of legal assistance and services needed by families facing the problems of retardation and to retarded persons themselves on a basis of need; and 4) encourage the continuation and funding of community action programs on a national level which impact positively on the health and welfare of minority and disabled persons.

The President of the United States, the Congress, and the Courts 1) must exercise leadership in the elimination of attitudes and practices that create conditions conducive to fostering the developing of mental retardation among minority persons including disadvantaged urban and rural whites. A country can be only as strong as its human potential. Retardation due to environmental factors poses a real threat to the security of this country; 2) discourage the dropping of regulations which impact favorably on the health and welfare of the mentally retarded and other disabled persons; 3) vigorously continue to implement affirmative action programs in compliance with statutory requirements to assure that minority and disadvantaged urban and rural whites and disabled persons be appointed to boards, committees, commissions, and administrative positions with decision-making responsibility on matters affecting the developmental opportunity of all persons in need; and 4) encourage the provision of adequate controls on the allocation and use of public funds to safeguard the health, education and welfare of the mentally retarded, other developmentally disabled and the socially and economically disadvantaged.