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### First Lady To Host TV Drive Against Teen Alcohol/Drug Abuse

A national public television and community-outreach project called "The Chemical People" was launched March 21 at a White House luncheon hosted by First Lady Nancy Reagan.

The project to combat teenage drug and alcohol abuse will combine a two-part national PBS television show November 2 and 9 with town meetings organized by PBS stations and local groups throughout the country to discuss alcohol and drug abuse by school-age youth and community actions to deal with the problem.

Mrs. Reagan, who has taken an active interest in helping prevent drug abuse by youth, will be featured on both television programs.

"We are in danger of losing an entire generation unless we act now to educate ourselves and our children," Mrs. Reagan said. "The Chemical People" is a powerful tool, and I am pleased to be part of the project."

The first hour of the TV program will inform viewers about teenage alcohol and drug abuse, and attempt to motivate them to act against these problems. Aided by the First Lady and a number of entertainment and sports personalities, the audience will learn that, while alcohol and drug abuse are national concerns, these are problems which must be handled within each individual community, school, and home.

On this segment, "a careful analysis of national abuse statistics will be coupled with

See TELEVISION (P. 6, Col. 1)



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

#### 'Promising' Research Reported

### Heckler Announces Task Force on . . .

## Alzheimer's Disease

Secretary Margaret Heckler has established a Secretarial Task Force on Alzheimer's disease, or senile dementia, to coordinate the Department's research on the illness and to "provide a vehicle for translating that research into policy, programs, and practical means for improving the quality of life for older Americans."

The Secretary announced her action at a March 22 news briefing held to highlight research reported by NIMH-supported scientists.

Among the data reported were preliminary, but encouraging, findings that naloxone, a drug used to treat narcotic overdoses, may be useful in treating a primary symptom—memory deficit—of Alzheimer's disease.

The new studies have shed light on the neurochemical substrates of the disorder and suggest new therapeutic approaches to a disease that, less than a decade ago, was

considered by many to be an inevitable and untreatable aspect of aging.

Alzheimer's disease is a central nervous system disorder that affects at least 6 percent of Americans aged 65 and older, or some 1.7 million persons. It is the major factor responsible for the placement of elderly people in nursing homes and is the fourth leading cause of death among the elderly.

Assistant Secretary for Health Edward Brandt chaired the Secretary's news briefing and will head the new Task Force.

Scientific participants included Dr. Joseph Coyle, The Johns Hopkins School of Medicine, Dr. Barry Reisberg, clinical director of the Geriatric Study and Treatment Program at New York University School of Medicine, and Dr. Herbert Pardes, NIMH Director.

Coyle, who with colleagues Donald Price and Mahlon DeLong reviewed neurochemical aspects of the illness in the March 11 *Science*, pointed to the apparent implication of the neurotransmitter acetylcholine in Alzheimer's disease.

In the past several years, Coyle said, studies have provided "compelling evidence" that drugs which interfere with the action of acetylcholine can produce memory impairments in animals that mimic those seen in Alzheimer's disease. Also, autopsies of Alzheimer's patients reveal reductions in the presence of the enzyme that produces the chemical.

The Johns Hopkins team demonstrated that the area of the forebrain called the nucleus basalis is heavily populated by acetylcholine-producing neurons.

See ALZHEIMER'S (P. 2, Col. 1)

### NIMH Establishes Suicide Research Unit

With suicide sharply on the rise in the United States, NIMH has established a Suicide Research Unit and is planning an interdisciplinary workshop on suicide in fall 1983.

The new unit, headed by Dr. Susan Blumenthal, is a component of the Center for Affective Disorders, Clinical Research Branch, Division of Extramural Research Programs.

The research unit and the workshop both will emphasize the critical need for expanded data on suicide.

While suicide rates among youth and other high-risk populations are on the rise, Blumenthal reports, NIMH currently funds only three studies of suicidal behavior. To stimulate greater knowledge of this public health problem, the unit has identified such research priorities as refining methodology of suicide studies and adopting a uniform nosology (classification) of suicidal behaviors.

Studies of suicide prevention will focus primarily on diagnosis and treatment of depression (and other affective disorders),

See SUICIDE (P. 7, Col. 1)

ADAMHA News goes on subscription next issue (Vol. IX, No. 7, April 29, 1983). If you have not subscribed, use order form on Page 7.

**ALZHEIMER'S** *from Page 1*

As suspected, selective damage of the nucleus basalis in animals reproduced the chemical abnormalities in the cerebral cortex that are associated with senile dementia. Further, brain autopsies of victims of the illness revealed that neurons in the nucleus basalis had died off selectively, Coyle said.

Reisberg, colleagues from the NYU Geriatric Program, and Dr. Eugene Roberts, neuroscience director at the City of Hope Research Institute, Duarte, Calif., reported in the March 24 *New England Journal of Medicine* the results of a pilot study that suggest the potential usefulness of the opiate antagonist naloxone in addressing the memory deficit that is a core symptom of Alzheimer's disease.

The naloxone hypothesis was proposed by Roberts at a 1981 conference convened by the NIMH Center for Studies of the Mental Health of the Aging. That meeting brought together basic scientists and clinical investigators to speculate on treatment research strategies.

Roberts, discoverer of the transmitter substance GABA, theorized that a weakened ability of GABA to inhibit cholinergic neurons responsible for producing acetylcholine may allow them to become initially hyperactive and metabolically stressed. The overloaded neurons might subsequently degenerate, as Coyle suggested.



In his theoretical paper, Roberts further reasoned that the effectiveness of GABA could be increased by blocking neurochemical substances that interfere with its ability to regulate cholinergic neurons.

One source of interference appears to be endogenous opiates—naturally occurring morphine-like substances in the brain—that could be neutralized through the use of an opiate antagonist.

**New Deadlines for Small Business R&D Applicants**

In response to requests from small business leaders, PHS has extended its deadlines for grant applications under the Small Business Innovation Research (SBIR) program.

The first receipt date of March 15 has been changed to **May 1, 1983**. The new date will give eligible small businesses more time to prepare their grant applications, and it still will allow PHS to award the grants in FY 1983 (before September 30, 1983).

The postponement is the result of discussions with representatives of small businesses who attended a February 7-8 SBIR conference at the National Institutes of Health. The conference was held to acquaint small firms with new opportunities for Federal research-and-development support under the Small Business Innovation Development Act of 1982 (See *ADAMHA News*, Vol. IX, No. 2, February 11, 1983).

Other SBIR receipt dates have been changed to ensure timely processing and review of grant applications in FY 1984 (after October 1, 1983). The changes are:

- The July 1 and November 1, 1983 receipt dates have been cancelled.
- The two receipt dates for Phase I grant applications for FY 1984 awards are October 1, 1983, and February 1, 1984.



- The receipt date for Phase II grant applications for FY 1984 awards is April 15, 1984.

These changes will appear in the next printing of the PHS Omnibus Solicitation. For further information, contact Lily Engstrom, SBIR Coordinator for PHS, at (301) 496-5356.

Naloxone, a prescription drug administered intravenously to treat narcotic overdoses, is such a substance. It is effective in blocking the action of the natural opiates, endorphin and enkephalin, as well as externally administered narcotics.

At Roberts' urging, staff of the NIMH aging program asked Reisberg to test the naloxone theory. Initial results were encouraging. The NYU team then conducted a double-blind, placebo-controlled study of the drug on seven patients suffering moderate to severe Alzheimer's disease.

The drug was found to improve the subject's performance on a number of psychological measures. In three patients, naloxone produced observable clinical improvement.

While emphasizing the preliminary nature of the findings, Pardes told the press that on a visit to Reisberg's clinical program, he met a patient who, but for her improvement on the drug, would have been transferred from a residential center to a nursing home.

Reisberg and colleagues plan more exten-

sive followup studies that will address questions of dosage, the usefulness of an orally-administered opiate antagonist, and duration-of-treatment effect.

In response to a question from a reporter, Reisberg also cautioned that the study was a pilot and advised against premature use of the drug in treating Alzheimer's victims.

Heckler commended various HHS components, principally, the National Institute on Aging and the National Institute of Communicative Disorders and Stroke, in addition to NIMH, that are focusing on the medical aspects of aging.

She said the Task Force also will include representatives of the Health Care Financing Administration, the Administration on Aging, and other programs which serve the elderly.

The Secretary noted that since 1981, total funding for Alzheimer's disease research has increased by \$8 million, taking into account FY 1984 budget proposals.

—Paul Sirovatka, NIMH

**ADAMHA NEWS**

Alcohol, Drug Abuse, and Mental Health Administration  
 National Institute on Alcohol Abuse and Alcoholism—William Mayer, M.D., Acting Director  
 National Institute on Drug Abuse—William Pollin, M.D., Director  
 National Institute on Mental Health—Herbert Pardes, M.D., Director  
 Midred Lehman, Associate Administrator for Communications and Public Affairs  
 ADAMHA Office of Communications and Public Affairs

Editor, Kate Callen. Photography, Nilo Olin. Institute contracts: NIAAA—Wilbur Pinder, 443-4883; NIDA—Susan Lachter, 443-1124; NIMH—Marilyn Sargent, 443-4536; Saint Elizabeths Hospital—Don Coyle, 574-7034. Published biweekly by the Alcohol, Drug Abuse, and Mental Health Administration, Public Health Services, Department of Health and Human Services, to report on agency-related issues and events. Articles are free of copyright and may be reprinted.

**ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION**

ADAMHA News invites comments. Phone (301) 443-3783 or write to: OCPA, Room 12C-15, 5600 Fishers Lane, Rockville, Md. 20857.

# NEWS FROM ST E's

JOHN MARR SYMPOSIUM

## Sadoff Warns Field of Dangers of Predicting Dangerousness

The dangers of predicting dangerousness of mentally ill persons were described by Dr. Robert Sadoff, former President of the American Academy of Psychiatry and the Law, at Saint Elizabeths' sixth annual John Marr Symposium.

Sadoff, who directs clinical and research programs in forensic psychiatry at the University of Pennsylvania, delivered the keynote address on "Clinical Evaluations for the Least Restrictive Alternative—Dangerousness: Whose Prediction? Whose Responsibility?"

The definition of dangerousness is a legal matter, he held. Such predictions must be "made by the judge, who is the representative of society in this regard." Decisions to discharge mentally ill offenders from treatment also should be made by judges "with proper input from multiple sources, including psychiatrists."

Predicting the dangerousness of any patient is a difficult task, Sadoff emphasized. Psychiatrists who testify in court about the dangerousness of a defendant are therefore placed in a precarious position, he stated. Not only is dangerousness undefined by any law, but its determinants have not been established sufficiently to ensure exact clinical predictions.

He enumerated "the dangers of predicting dangerousness," which include:

- danger to the patient of excessive hospitalization or premature release;
- danger to the psychiatrist of vulnerability to legal actions by defendants following excessive hospitalization or by defendants' victims following premature release; and
- danger to the community, especially in the absence of adequate followup services.

In addition, Sadoff raised the dilemma of a patient who has become, following treatment, no longer mentally ill, but still is dangerous. The consequences of the patient remaining in the treatment system because of the court's decision bear examination, he said.



Dr. Robert Sadoff

*"[Insanity defense] pleas were entered in less than one-sixth of 1 percent of a sample of cases; less than one-third of the pleas were successful."*

A nationwide movement in the wake of the Hinckley trial to abolish or modify use of the insanity defense was described by the speaker as "designed to keep the defendant from 'getting away with murder.'" However, he pointed out, one study found that such pleas were entered in less than one-sixth of 1 percent of a sample of court cases, and less than one-third of the insanity pleas were successful.

In light of these statistics, he concluded, "concern that the insanity plea is overused appears unfounded."

A genuine cause for concern, in Sadoff's view, is the possibility that defendants found not guilty by reason of insanity might be released prematurely to the community. He advocates "gradual release" programs which stipulate continual evaluation of defendants' behavior and their ability to take responsibility for themselves as restrictions are eased.

"The courts have always opted for the least restrictive environment compatible with proper care and treatment of the patient," he observed. Predictions of dangerousness must be made at every step of a gradual release, both to protect society and to ensure the best treatment for the patient.

In conclusion, Sadoff said, "The clinician can add a particular dimension to the total assessment of dangerousness," but such assessments "should be combined with other resources for comprehensive evaluation."

It is necessary "to gear the social legal system to the abilities of the mental health field" and not capitulate to demands "of the legal system . . . to predict dangerousness," he held.

A panel discussion followed Sadoff's address, with responses from Dr. Bernard Arons, Saint Elizabeths' Dixon Implementation Office; Constance Oliver, Saint Elizabeths' John Marr Division; Dr. Saleem Shah, NIMH Center for Studies of Crime and Delinquency; and Judge Fred Ugast of D.C. Superior Court.

They raised the following issues:

- Despite protestations from the mental health field, the courts will continue to ask for psychiatric predictions of dangerousness.
- Assessing patients' ability to control their behavior will remain a difficult task.
- In any determination of a "least restrictive environment," clinicians can consider only those settings which meet the patient's basic needs for housing, medical treatment, and other essentials.
- More accurate predictions of dangerousness would help gradual release programs ensure protection of the community.

Panel members praised the American Psychiatric Association for its recent statement on the credibility and limitations of psychiatric testimony in court cases.

The John Marr Symposium, held January 28, commemorates the slaying of a Forensic Division staff member by one of his patients. It is held annually as one of the Hospital's contributions to understanding and treating forensic patients.

—Don Coyte, St. E's

## Overholser Lecture: "Borderline Patients"

Saint Elizabeths' 12th annual Overholser Day Convocation, scheduled for Friday, April 22, will focus on "The Borderline Phenomenon."

Dr. James Masterson, Professor of Clinical Psychiatry at Cornell University Medical College, will deliver the lecture in the Hospital's Hitchcock Hall.

Masterson pioneered the study and treatment of patients exhibiting "borderline syndrome," a psychiatric disorder that is distinct from either psychosis or neurosis.

Masterson's presentation will be followed by responses from Dr. Reginald Lourie, NIMH Mental Health Study Center, and Dr. John Docherty, NIMH Psychosocial Treatment Research Branch.

Afternoon workshops will explore specific aspects of identifying and treating borderline phenomenon patients.

The Convocation is open to the public, but preregistration is required. For further information, call 574-7315.



**NIMH  
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Presents**

in collaboration with  
the NIMH Women's Advisory Group  
"Mental Health Services for Women:  
Treatment and Prevention"

June 19-22, 1983  
Chicago, Illinois

Dr. Jean Baker Miller  
Wellesley College and  
Boston University School of Medicine

Registration deadline: May 2

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## NEW RESEARCH FINDINGS

**Focus on Children at Mental Health Risk**

Programs designed to prevent mental health problems in children need to be based on a complex developmental model which takes into consideration the child, the family, and society, said Dr. Arnold Sameroff, a University of Illinois (Chicago) researcher, at a recent meeting sponsored by the NIMH Prevention Research Branch.

In a cogent presentation of research findings on possible causes of mental health problems during early childhood, Sameroff said that no simple answers have emerged from long-term prospective studies of children and their families. Neither nature nor nurture can be singled out as the basic cause of future problems. Children are the products of complex, dynamic interactions between themselves, their parents, and society, he said.

Sameroff and his fellow researchers followed 300 children from birth to age 4, factoring out characteristics of child and mother in hopes of identifying specific phenomena predictive of future emotional difficulties that could be addressed by preventive measures.

Even before the birth of the children, the investigators tested the mothers on a variety of social, mental, and emotional scales to determine if and how a particular maternal characteristic might affect the emotional well-being of a child.

Tests of newborns showed no single significant correlation with maternal characteristics. In a comparison of mentally ill mothers with matched controls, the research team found that babies of schizophrenic mothers weighed less at birth (the sicker the mother, the lower the birthweight) and that infants of depressed mothers had lower Apgar scores (a routine measurement of health status at birth), but the differences were not significant, said Sameroff.

However, with the passage of time, the investigators found that each mother's mental health, social class, and cognitive style affected her child's development.

Social class was the single best predictor for I.Q. Before age 2, the scientists could find no significant differences in the children's I.Q.s, but at 30 months, variances became apparent. Children of low socioeconomic status (SES) mothers began falling behind, and measures at 3 and 4 years of age showed the I.Q. gap widening.

The explanation, said Sameroff, lies in language skills. Before age 2, I.Q. tests involve motor functioning, but thereafter, verbal ability comes into play. "Hearing language facilitates learning language, and low SES mothers typically have less time to talk to their children," he pointed out.

In seeking psychological predictors of outcome and their relationship to SES, the investigators found "unusually" high correlations between measures of prenatal anxiety

in the mothers and their perceptions of difficult temperament in their babies at 4 months. They also found strong correlations between mothers' reports of temperament at 4 months and their reports of social and emotional adaptivity in their children at 4 years. Closer examination indicated that the correlations were much stronger in middle and upper SES mothers than in lower SES mothers.

To determine whether the stability over time was a function of the mother's perceptions or of the child's behavior, the researchers observed the mother and child in the home. They found no correlation between the mother's perceptions and the child's actual behavior for upper and middle SES parents. Lower SES mothers proved more accurate, showing a low significant correlation.

"Higher SES mothers have greater expectations of their children, and their fantasies color their perceptions," explained Sameroff. "From the moment of birth, they begin visualizing the future doctor or lawyer," he quipped.

To understand the impact of parents' developmental agendas on their children and how these agendas relate to SES status, Sameroff first examined the work of researchers who had studied dimensions of parental thinking.

He said that an NIMH scientist, Dr. Melvin Kohn, had done an "elegant" study which determined that individuals tended toward conformity or self-direction depending on their value systems. Further, Kohn had found that the styles were related to SES status: conformity was linked to lower SES and self-direction to higher SES. People with con-

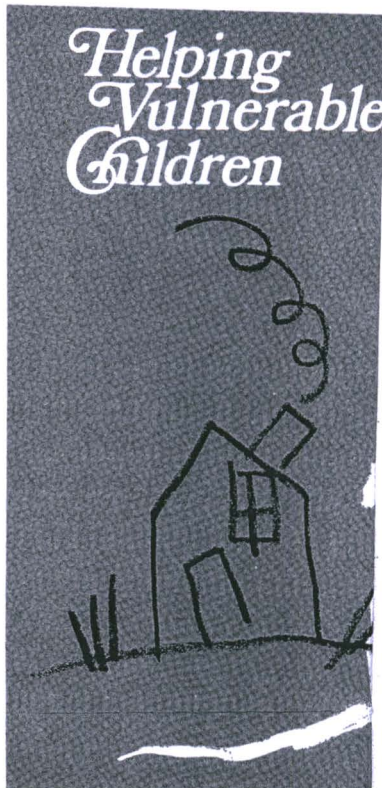


Dr. Arnold Sameroff

forming values led more conforming lives and had fewer options—working in jobs controlled by others, for instance. Upper and middle SES individuals tended to make their own agendas more often, said Sameroff.

Because lower SES individuals have fewer options, they do not train themselves or their children in how to make choices, he continued. "That's fine in a stable situation, but in crises, they cannot cope. They have difficulty getting services or seeking jobs."

Sameroff then looked at the thinking styles of the mothers in his sample and found 4



basic viewpoints: the symbiotic style, in which the mother views the child as an extension of herself; the categorical point of view, in which the mother can separate herself from the child, but believes there is a specific cause for a child's behavior; the compensating style, in which the parent can recognize that there may be different alternatives or causes; and the "perspectivistic" style, in which the mother sees a dynamic system in which a chain of events occur, one affecting another.

The thinking styles of the mothers also were strongly related to SES, the higher SES mothers being more perspectivistic in their cognitive approach, he said.

In order to develop a predictive model for future outcomes of the children, Sameroff examined 11 factors in his sample. These included the severity and chronicity of the mother's mental illness, maternal anxiety, parental perspective, maternal stimulation of child during infancy, the mother's education, occupation of the head of the household, minority status, the presence or absence of a husband in the household, stressful life events, and the size of the family (four or more children were considered a high risk factor).

He then applied risk scores to the children. Those exposed to three or fewer risk factors were considered low-risk children, and those

## NEW PUBLICATION

**Focus on Children of Alcoholic Patients**

"...For these children, the drinking problems of their parents are the central fact of their lives; their feelings, personalities, and social behaviors are affected more by this reality than by any other."

This account of the lives of the children of alcoholics is excerpted from the soon-to-be-released NIAAA guidebook which aims to "improve existing services for this long-neglected client group."

Due out later this month, *A Growing Concern: How to Provide Services to Children of Alcoholic Families* states that "the clearest gap in services to children of alcoholics is the lack of active, sustainable programs focused specifically on them." Alcoholism treatment programs, even those oriented toward serving the alcoholic family, rarely have the staff expertise or resources needed to focus on children. Agencies which serve children, on the other hand, rarely have the staff expertise or resources needed to focus on the impact of family alcoholism.

Yet, the children of alcoholics are the natural clientele of these and other service systems. In a section on "Who Are the Caregivers of Children of Alcoholics?", the guidebook states that "almost anyone can be a caregiver"—including physicians, educators, and volunteers—but "some general and specific training is necessary." Training should help direct personnel to:

- Look past the child's "symptoms" (poor grades, ill health, depression, disruptive behavior) and identify family alcoholism as the real problem.
- Examine their own attitudes toward alcohol use and abuse. Professionals who treat children of alcoholics often fall prey to hidden fears or misconceptions about alcoholism. These can be surmounted if caregivers confront their own feelings before entering practice.
- Understand the range of effects that family alcoholism can have on children, including: absence of parental discipline and guidance; increased (and inappropriate) household responsibilities; marital discord

or divorce; and, in the long run, "transmission" of alcoholism from one generation to the next.

- Become familiar with available resources—State, local, and private—and learn how to tap them.

A section on "How Are Programs Developed and Financed?" presents a hypothetical case study of launching services for children of alcoholics. The director of an alcoholism treatment center, concerned about increasing problems among clients' children, starts by requesting literature from the National Clearinghouse for Alcohol Information.

Armed with up-to-date knowledge, the director develops a program plan which offers alcohol education and counseling for the children along with family therapy. For maximum efficiency, the program is carefully designed to be "compatible with services already at the agency."

The director then visits community agencies with similar missions (boards of education, child health departments) to enlist their support and solicit their advice. After drawing up a budget proposal, the director requests aid from the State Alcoholism Authority (which has jurisdiction over block grant funds), from two private foundations discovered through a national computer search, and from local corporations.

*A Growing Concern* devotes one chapter to examining the critical services needs of the children of minority group alcoholics. Problems with alcoholism in Native American, Hispanic, and black populations are explored, and strategies are recommended for children's services which take cultural factors into account.

Model programs (Alateen; CASPAR in Somerville, Mass; ESD in Seattle, Wash.) are described in an appendix.

According to Heddy Hubbard, NIAAA project officer for the guidebook, copies of *A Growing Concern* will be available from the Clearinghouse in early summer.

—K.C. ADAMHA

exposed to six or more factors were judged high-risk children.

Examination of social/emotional competence measures at 4 years of age indicated that every risk factor—except, "surprisingly," maternal stimulation during infancy—significantly affected the child's outcome. Children with six or more risk factors had many problems.

An analysis of risk factors by SES groups indicated the same distribution of outcomes in each group. Regardless of SES status, the odds are 13-1 that a low-risk child will have superior adaptability and 7-1 that a high-risk child will have problems by age 4, said Sameroff.

He further analyzed the 11 factors to see if one had more weight and was "pulling the others along," and found that the sum total of factors always predicts outcome. "No one has ever found a single, identifiable risk factor for a specific condition, even in studies of medical problems such as heart disease or cancer," he said.

Pointing out that not all high-risk children have bad outcomes or low-risk children good ones, Sameroff said, "We can predict that a percentage of children in the high- and low-risk groups will have problems, but we cannot predict which child it will be."

Sameroff then went on to demonstrate various

models for looking at the relationship between mother, child, and society. He described a complex series of hypothetical interactions developing from the response of an obstetrician to an anxious mother and the eventual effect on the child: the interaction between doctor and mother affected the mother's attitudes and behaviors, which in turn affected the infant and future mother/child interactions.

Children's developmental milestones also affect interactions significantly, he pointed out. "When a 1-year-old starts walking, everything breakable goes up on a shelf, and the environment and the mother's life changes considerably."

Between ages 5 and 8, children begin to stabilize because "they have internalized their world and are less reactive to the environment." Therefore, behavior modification, as a possible intervention, is more effective before children reach that age range, Sameroff noted.

Nevertheless, because the child is part of a dynamic system, interventions can be introduced at any and every age. "High-risk children and their families, we have found, need a continuing relationship with the mental health system in order to deal with developmental and environmental changes," he concluded.

—Marilyn Sargent, NIMH



**TELEVISION** *from Page 1*

a sensitive look at the emotional realities of this tragic problem, including denial, guilt, anger, frustration, and despair," the program's producer, WQED/Pittsburgh, has announced. "This program will seek to convince individuals and communities to confront the problem and organize in seeking solutions rather than hide behind a 'wall of denial'."

**"The Chemical People" project is based on the assumption that outreach to stimulate community action, not the TV programs themselves, is the key to success."**

The second program, a week later, is designed to "offer hope and guidance" to communities about combating youthful alcohol and drug abuse. Viewers will receive guidelines from their local PBS stations on how to set up a community task force and a "blueprint" for forming parents' groups and using existing alliances. Experienced resource people also will describe how to develop information, prevention, intervention, and treatment programs.

"The Chemical People" project is based on the assumption that outreach to stimulate community action, not the television programs themselves, is the key to success.

"Gathered in schools, firehalls, and churches, those attending the town meetings will hopefully confront their community problems and consider solutions," the producers say. "This approach eliminates the pointing of fingers and the suggestion that the solution should rest solely with the school, the church, the police, or a parent. Rather, this is an opportunity for neighbors to join hands and succeed."

"The Chemical People" approach was piloted in Pittsburgh last May, with "phenomenal success," the producers say.

More than 12,000 people attended local town meetings to view the program and hear discussions afterward from panels about the problem in their areas. Bicki Wertz, Outreach Coordinator for the project, points out. "Out of those town meetings, 104 permanent task forces were organized to continue anti-drug and alcohol abuse projects in 46 of 47 school districts in Allegheny County, which includes Pittsburgh."

"These task forces still are operating today, and their leaders have organized a wide range of activities aimed at the problem as found in their local areas," she said. "We are hoping to gear up the same kind of community response nationally on November 2 and 9."

WQED plans to produce four "teleconferences" in advance of the November programs to train community groups on how to set up town meetings and establish task forces. Groups will be invited to local PBS stations to participate.

**DRUG ABUSE PREVENTION****NBC Consults NIDA on National TV Campaign**

NBC-TV, with assistance from the National Institute on Drug Abuse, has mounted a national public service campaign on teenage drug abuse to air locally through the end of April.

Three program formats are designed to raise public awareness of drug abuse problems: 1) approximately 25 public service announcements featuring anti-drug messages from star performers of NBC television shows; 2) 5-minute documentaries based on interviews with celebrities who have experienced drug problems in their families; and 3) a half-hour Drug Quiz Program to test and enhance viewers' knowledge of the dangers of drug abuse.

The Drug Quiz Program, hosted by Dr. Frank Field of NBC-TV in New York, will ask basic questions on drug abuse. NIDA Director William Pollin and other national drug abuse experts will appear on the program to provide the correct answers to the quiz questions.

NBC first approached NIDA in December 1982 for consultation in developing a national drug education effort through television. The Institute arranged a seminar on drug abuse issues for the network's programming, promotion, and "standards-and-practices" departments.

NIDA also provided publications and background materials for program development and for distribution to the five NBC-owned and operated stations and the cooperating affiliates. NBC produced and financed the finished products.

"This campaign has the promise of reaching prime-time audiences in major markets," says Susan Lachter, NIDA Division of Prevention and Communication. "NBC is predicting a tremendous response to the programs."

Local NBC television stations will use the programs at their own discretion. For program scheduling in a specific area, check local TV listings or contact the local NBC station.

**ALCOHOL ABUSE PREVENTION****Armed Forces Air NIAAA TV and Radio Spots**

NIAAA's media campaign spots aimed at women and youth will be aired worldwide for the next 2 years under the auspices of the American Armed Forces Information Service.

The spots will be included in television and radio programming for U.S. military personnel and their families stationed overseas.

Program directors will be required to air the spots at least once a week, either as part of overseas satellite programming or as videotaped "commercials" to be inserted in prime-time network shows. They also will be urged to pair each spot with programs appropriate to its target audience (e.g., a

spot aimed at youth would run with shows that are popular among young people).

The alcohol education spots came to the attention of Armed Forces staff when the Cable News Network broadcast a presentation by Judi Funkhouser, Acting Chief of the Prevention Branch in NIAAA's Division of Prevention and Research Dissemination.

**"They have assured us that they can use alcohol abuse and alcoholism prevention themes as frequently as we can provide them."**

Funkhouser reported on a talk show that rising incidence of alcohol problems among women and youth prompted the Institute to launch a national campaign tailored for these high-risk populations. Her remarks were followed by a showing of several spots advocating that it's okay to say no to a drink of alcohol.

Shortly after the broadcast, Al Edick of the Armed Forces Information Service contacted the Division about the possibility of using the spots to educate women and youth in overseas military installations. According to William Gregory, Acting Deputy Director of the Division, the American Forces now has a standing request for all future NIAAA audiovisual material.

"They have assured us that they can use alcohol abuse and alcoholism prevention themes as frequently as we can provide them," he reports.

NIDA and NIAAA, along with more than 20 national service and civic groups, are cooperating with "The Chemical People" project. Data from NIDA's National High School Survey are being used as the basis for the program, and NIAAA's Prevention Branch was instrumental in helping the producers secure part of the financial support needed from the Metropolitan Life Foundation. The Richard King Mellon Foundation is the initial sponsor of the nationwide effort.

Among other organizations cooperating in the WQED project are the National Federation of Parents for Drug-Free Youth, the National Association of Alcoholism and Drug Abuse Counselors, the National Council on Alcoholism, and a new alliance called the National Coalition for the Prevention of Drug and Alcohol Abuse.

Also participating are Al-Anon/Alateen Family Groups, the National PTA, the American Federation of Teachers, and others.

—James Helsing, ADAMHA

**SUICIDE** *from Page 1*

which has "the most clearly established association with suicide," says Blumenthal. While there is no evidence that all suicide victims suffer from depression, she points out, epidemiologists have found that 15 percent of individuals with serious affective disorders eventually commit suicide.

Studies of risk factors and high-risk populations are another priority area for suicide prevention research. To date, studies have found:

- Suicide among youth aged 15-24 has tripled in the last 25 years. Young urban blacks have been especially vulnerable.
- An estimated 39 percent of American suicide victims are elderly persons.
- Suicide rates are especially prevalent among people who abuse alcohol or drugs, show violent behavior, or suffer from a physical illness.
- Suicidal adolescents are eight times more likely than other teens to have a family history of suicide. This may be evidence of "a familial predisposition to suicide," says Blumenthal.

Citing a recent review of the literature by Dr. Robert Hirschfeld (a paper which Blumenthal co-authored), she reports that "most suicide attempts and suicide completions" are preceded by a particular constellation of personality factors and life events, such as increased stress, living alone for the first time, and disturbed family relations. For adolescents, such events can range from loss of a parent through death or divorce to rejection by peers.

"The predisposing factors in suicide attempts may differ from those in suicide completions," she continues. "We need more information on this, as well as a better understanding of the relationship of suicide to specific physical disorders."

Several studies have found that 50 to 80 percent of all suicide victims saw a physician or psychiatrist within a year—and sometimes even within a month—before the suicide. Blumenthal believes this may be an indication that people on the verge of suicide often try somehow to communicate their despair and seek help.

In light of this belief, she says, medical and mental health professionals should be trained to recognize patients who may be suicidal.

The biochemistry of suicide is a research area with enormous potential for prevention, Blumenthal notes. Several studies already have traced a relationship between a deficiency in serotonin, a neurotransmitter, and suicide (and episodic aggression as well). These studies of suicidal individuals found that those with a serotonin deficiency had a 10 to 20 times higher rate of completed suicides.

Epidemiological questions concerning suicide also need greater research attention, according to Blumenthal. Such questions include: Are suicides underreported? How many suicides are mistakenly recorded as homicides or accidental deaths? How many suicide victims are depressed, and how

**Blumenthal Is New Suicide Unit Chief**

As Chief of NIMH's new Suicide Research Unit, Dr. Susan Blumenthal has returned to the Institute for a second round of mapping the "human psyche, an exciting frontier."

Blumenthal first came to NIMH in the fall of 1980 when she joined the former Psychiatry Extramural Project review staff. In 1981, she left for an academic sojourn at Harvard University, where 1 year of studying public health and health policy netted her a Master of Public Health Administration degree.

A native of Palo Alto, Calif., Blumenthal says she remembers always wanting to be a doctor. Her interest in medicine intensified at age 10 when her mother developed cancer. At age 13, she was working in laboratories at Stanford University.

After an undergraduate stay at Reed College, she attended the University of Tennessee Medical School and completed her psychiatric residency and fellowship training at Stanford University School of Medicine.

"My decision to go into psychiatry was based on an interest in combining the perspectives of the humanities and social science with the basic sciences," Blumenthal recalls. "Psychiatry is a specialty in medicine that treats the whole person. I found that I was fascinated by the human brain turning in on itself and scrutinizing its origins."

many aren't? What do the various high-risk populations have in common which makes them vulnerable to suicide?

These issues will be examined closely by clinical researchers, statisticians, and other scientists at the Unit's Fall 1983 workshop on suicide research. NIMH is especially eager to involve researchers who have not considered working on the problems of suicide but who might become interested enough to make scientific contributions.

Blumenthal can be contacted at 5600 Fishers Lane, Room 10C-05, Rockville, MD 20857, telephone (301) 443-4524

—Myrtle Kahn, NIMH



**PROFILE**

Blumenthal has a longstanding concern about the possible shortcomings of a standard medical education, which she believes is a factor in the rising number of impaired physicians. She is particularly alarmed by the high rate of suicide among doctors and would like to investigate the problem with an eye toward prevention.

Her career plans are to continue administering mental health services and studies as she maintains her own research activities, and, ultimately, to teach at a medical school and to establish a clinical practice.

Last November, Blumenthal was among 30 prominent young achievers invited by the U.S. Ambassador to Great Britain, John Louis, Jr., to dine with the Prince and Princess of Wales at the American Embassy in London. Other guests included playwright Tom Stoppard, a concert cellist, and an astronaut.

Blumenthal reports that Prince Charles, who conversed with each guest individually, asked her astute questions about psychiatry, while Princess Diana discussed child development and child psychology.

—Myrtle Kahn, NIMH

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## MESSAGE TO CONGRESS AND PUBLIC:

**Cigarettes—"Most Widespread Drug Dependence"**

The Public Health Service has issued a new pamphlet, "Why People Smoke Cigarettes," which, in the strongest government statement on the subject yet, describes the dependence-producing effects of cigarette smoking and suggests ways to quit. According to the pamphlet, cigarette smoking causes more illness and death than any other type of drug dependence.

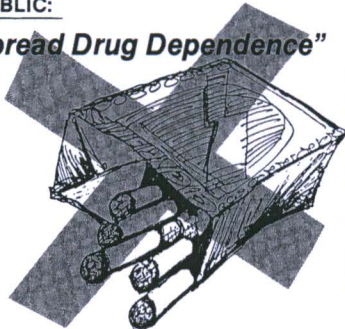
The pamphlet, developed by the PHS Office of Smoking and Health, is based on research described in NIDA Director William Pollin's Congressional testimony in March of last year.

More recently, in a Congressional statement on the same topic, Pollin declared, "Cigarette smoking is the most widespread example of drug dependence in this country. Fewer than 500,000 Americans use heroin, while 56 million Americans smoke cigarettes.

"Most people don't realize that cigarettes are responsible for seven times as many deaths each year as automobile accidents," said Pollin.

He emphasized that cigarette smoking can be more than just a habit. "What at first appears to be a casual, unordered routine in short turns out to be not casual at all, but a controlled behavior," he said. "In an 18-hour waking day, a two-pack-a-day smoker spends from 3 to 4 hours with a cigarette in mouth, hand, or ashtray, takes about 400 puffs for the day, and inhales up to 1,000 milligrams of tar."

Pollin cautioned that it pays not to start smoking. "Kids who experiment with cigarettes once or twice have a 50 to 75 percent chance of becoming regular smokers."



Citing NIDA-supported researchers and other authorities, Pollin said that nicotine appears to be "the main factor in establishing and maintaining a dependence on tobacco." It meets the following established criteria for drugs that can produce dependence:

- It is psychoactive, meaning it affects the chemistry of the brain and nervous system.
- It creates dependence and can lead to compulsive use.
- Physiological and psychological distress is likely when the drug is given up abruptly.
- Relapse is common, sometimes months or even years after quitting.

The description of cigarette smoking as a drug dependence is supported by both laboratory and clinical studies, Pollin noted, and has been accepted by the World Health Organization's ninth revision of the *International Classification of Diseases* and the American Psychiatric Association's *Diagnosis*

and *Statistical Manual of Mental Disorders*, third edition.

The pamphlet details how nicotine makes cigarette smoking rewarding or "reinforcing." Nicotine can cause changes in heart rate, skin temperature, and blood pressure. A "burst" of nicotine in the morning can produce "an almost immediate feeling of euphoria and satisfaction." It is this "rush," similar to the immediate effects of morphine and cocaine, which smokers seek throughout the day, according to studies at NIDA's Addiction Research Center.

When cigarette smoking becomes a habit, quitting is not easy. "Common symptoms are irritability, aggressiveness, and difficulty in sleeping," says the pamphlet. "The temptation to go back to smoking can be very strong and continue for a long time."

The pamphlet gives suggestions to smokers who want to quit. They include:

- *Recognize from the outset that a drug dependence may exist.* Difficulty in quitting "is not a sign of a weak or faltering will."
- *Quitting is a long-term process.* Relapse is common. "If one fails on the first try, the only thing to do is to go back and try again."
- *It may be useful to attend a clinic or join a cessation group.* Such help can be obtained from "Smokers' Information and Treatment Centers" listed in the Yellow Pages of the telephone directory or from local offices of the American Cancer Society, the American Heart Association, and the American Lung Association.
- *One should seek—and should receive—the support and help of family and friends.*

Single copies of the pamphlet are available free of charge from the Office of Smoking and Health, Room 110, Park Building, 5600 Fishers Lane, Rockville, MD 20857.

—Lenore Gelb, NIDA

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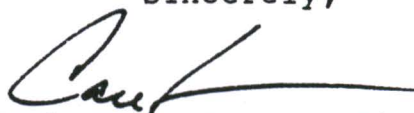
March 16, 1983

Dear Bud:

I just finished reading ADAMHA News, Volume IX, No. 3. Bud, they do a good job. In my opinion, ADAMHA News is much more useful to me now than in the past.

Give my best regards to your people for doing such a good job.

Sincerely,



Carlton E. Turner, Ph.D.  
Director  
Drug Abuse Policy Office

Dr. William "Bud" Mayer  
Acting Administrator  
Alcohol, Drug Abuse and Mental  
Health Administration  
Parklawn Building, Room 12-105  
5600 Fishers Lane  
Rockville, Maryland 20857

Special NIMH  
Research Section

'84 BUDGET REQUEST:

## Agency Research Up 15 Percent

President Reagan requested a total of \$357,826,000 for ADAMHA programs in the FY 1984 budget sent to Congress January 30.

The request includes \$57,973,000 for NIAAA, \$73,104,000 for NIDA, and \$200,448,000 for NIMH. The Office of the Administrator would receive \$6,301,000.

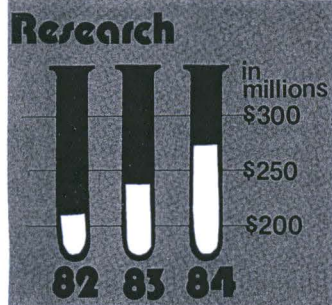
Funds requested for research total \$274 million, a 14.9-percent increase above the 1983 level, and 29.7 percent over 1982.

By Institute, research increases would be:

- \$13 million for NIAAA, a 37.5-percent boost, giving the Institute a research budget of \$46 million in FY 1984;

- \$9 million for NIDA, a 19.5-percent boost, to a total of \$56 million; and

- \$14 million for NIMH, an 8.4-percent increase, to a total of \$172 million.



The increases in research support would enable funding of 500 new and competing investigator-initiated awards, a level which ADAMHA has sought for several years to stabilize its research program.

The President's budget also would allow the agency to continue strengthening its intramural research activities. Special priority would be given in FY 1984 to relocating NIDA's preclinical research laboratories from Lexington, Ky., to a newly-renovated Addiction Research Center (ARC) in Balti-

See BUDGET (P. 3, Col 1)

## SEMINAR REPORTS RESEARCH TO PRESS



Insel Parker Johnson  
Compulsive handwashing and other disabling rituals that plague the lives of individuals with "obsessive-compulsive disorder" may be less psychological and more biological in origin than heretofore believed, according to Dr. Thomas Insel, Clinical Neuropharmacology Branch, NIMH Intramural Research Program, one of three researchers reporting at a January 27 ADAMHA Science Press Seminar.

Obsessive-compulsive disorder, Insel explained, is an uncommon yet severe mental illness characterized by recurrent distressful impulses or behaviors that the patient may recognize as senseless but cannot overcome. Many patients believe their obsessive washing or checking behaviors are required to keep them safe, whether from germs or some other imagined threat. The causes and treatment of the disorder have eluded psychiatry.

In 20 obsessive-compulsive patients they studied, Insel and his research team found a number of biological abnormalities often associated with severe depression. These include disturbances in sleep physiology and receptor sensitivity, and suppression of plasma cortisol in response to the drug dexamethasone.

Most of the patients responded, some dramatically, to treatment with clomipramine, an experimental antidepressant, Insel said. Within 6 weeks after starting treatment, they exhibited much less obsessive behavior and reported being less troubled by and more able to resist their compulsive urges.

"These findings point to a possible link between depression and what appears to be

See PRESS (P. 2, Col 1)

## Two NIDA Surveys Reveal Decline in Illicit Drug Use

Current use of illicit drugs by Americans dropped significantly between 1979 and 1982, according to data from two major surveys released this month by NIDA.

Findings from the new *National Household Survey on Drug Abuse* and the annual *High School Senior Survey* show decreases in the percentages of Americans who presently use marijuana, tranquilizers, hallucinogens (notably PCP), or methaqualone.

The High School Senior Survey, conducted for NIDA by Dr. Lloyd Johnson of the University of Michigan for the eighth consecutive year, indicates that daily use of marijuana among high school seniors declined for the fourth successive year to 6.3 percent in 1982. This is approximately the same level reported when the senior surveys began in 1975. Currently, 1 out of 16 seniors uses marijuana on a daily or near-daily basis.

Cocaine use by young Americans (age 12-25), which increased rapidly in the late 1970s, now has leveled off. Cocaine use by people age 26 and older has increased slightly.

Both surveys also found that use of alcohol and cigarettes has declined as well. However, the sharp drop in cigarette smoking by high school seniors over the last few years appears to have ended.

The seniors in the survey attributed the decline in marijuana use to their growing concern about the health consequences of regular smoking and to less peer acceptance of the drug's use.

At the same time, the survey shows that

See SURVEY (P. 4, Col. 1)

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**PRESS** from page 1

a subgroup of obsessive-compulsive disorder patients," Insel said.

Another experimental antidepressant, however, did not produce improvement. Insel and his co-workers now are testing two other drugs for depression to determine what results they produce in obsessive-compulsive patients. One drug, zimelidine, shows promise of helping patients but so far has been tested only in a few persons.

"After 3 years of research, we are confident that obsessive-compulsive disorder is associated with specific biologic abnormalities, although we can't yet be certain that the abnormalities are the cause of the disorder," Insel said.

"We are continuing to look for a highly specific drug or drugs which will not only help these unfortunate individuals overcome their illness but also assist us in understanding the mechanisms involved."

Dr. Elizabeth Parker, NIAAA Laboratory of Clinical Studies, described research she and co-workers are conducting to replace myths with facts about alcohol's effect on memory.

"One myth is that memory failure from alcohol use occurs only in very heavy drinkers," she said. "In our studies with college students, however, we have found that memory performance is impaired even at social drinking levels, after only 2 or 3 drinks."

Parker and her colleagues demonstrated that alcohol disrupts formation of "new memories" by impeding the brain's information acquisition processes. Learning while under the influence of alcohol, consequently, is not fully effective.

"People can retrieve memories laid down before drinking, but they have difficulty forming new memory traces," she explained.

Comprehension, on the other hand, is not affected. "This is the reason people believe alcohol is not affecting them at low intake levels."

Yet, because information acquired while under the influence of alcohol is not remembered as well as that learned when sober, studying after drinking is much less productive than otherwise, Parker advised.

The research team also discovered that the amount of alcohol in the bloodstream is an important predictor of degree of memory loss.

"In a recent study, we found that memory loss increases as subjects drink and their blood alcohol levels rise," Parker reported. "In turn, loss decreases as alcohol is metabolized and subjects return to sobriety. However, memory performance still is reduced 5½ hours after taking 5-6 drinks."

Another myth about alcohol is that mental efficiency is impaired in alcoholics even when sober, but not in social drinkers.

"Since most drinkers are social drinkers, we sought to separate fact from fiction on this question. We brought more than 100 upper middle-class male social drinkers into the laboratory for a series of tests of mental acuity, problem-solving skills, and memory process. We found that those who reported drinking larger quantities of alcohol on single drinking occasions had significantly

poorer cognitive performance when sober than others.

"Comparable tests in a group of college students produced the same results. Abstraction performance when sober was poorer in students who consumed larger amounts of alcohol at a time," Parker reported.

She summarized, "These results indicate that while frequent ingestion of small amounts of alcohol does not seem to interfere with cognitive functioning, consumption of large amounts of alcohol on individual drinking occasions increases the risk of impaired intellectual performance when sober."

The NIAAA researchers are now seeking to replicate their findings in other populations.



Dr. Insel, ADAMHA Administrator William Mayer, Dr. Parker, Dr. Johnson

Dr. C. Anderson Johnson, Health Behavior Research Institute, University of Southern California, briefed science reporters at the seminar on a research project he is just beginning for NIDA to find out if youngsters at junior and senior high school levels can be taught to avoid starting drug use.

Project "SMART" is based on social-psychological principles and approaches Johnson already has used successfully in preventing cigarette smoking among youths. In that program, incidence of smoking was reduced by 50-75 percent in three adolescent populations, ages 11-13. The prevention rate of 50 percent still was holding at a follow-up survey 2½ years later.

"Our previous research also suggested that tobacco smoking is a very strong predictor of alcohol and marijuana use by 10th grade students, and that anti-smoking programs result as well in reductions in alcohol and marijuana," Johnson said.

"We found that a cigarette smoker is more than twice as likely as a nonsmoker to start using marijuana and alcohol. And the more one smokes, the more likely one is to start using marijuana and alcohol."

These findings—put together with knowl-

edge that social and psychological precursors of cigarette smoking (peer and parental use, risk-taking behavior, etc.) are the same for alcohol and marijuana use—led the investigators to design the new drug abuse research prevention project.

The main features of the program are:

- An emphasis on the primary concerns of pre- and early adolescents, i.e., peer acceptance over long-term health consequences.

- Teaching skills for "saying no to drugs," and reinforcing them both through role-modeling and rehearsals of saying "no" to drugs in a variety of situations a student is likely to face.

- Identifying the real peer leaders in a school, then recruiting them to help implement the program. "In the anti-smoking project," Johnson pointed out, "we found that

lasting results are achieved *only* if you place major reliance on the role of peer leaders, who oftentimes are students least likely to be recommended by teachers or administrators."

- Creating new normative expectations, so that avoidance of drug use is expected and respected by peers.

- Eliciting a "public commitment" from each student to avoid drinking and drug use, including cigarette smoking. The students are aware they could be asked to take a saliva test for cigarette smoking at any time. This helps "keep them honest" about all of their drug use, the investigators believe.

The above approach—and an alternative "Self-Management Program" stressing interventions to enhance self-esteem and teach decisionmaking and mood-control skills—will be tested in single-year programs at the sixth, seventh, eighth, and ninth grade levels, and in multi-year programs spanning these grades.

Over the next 4 years, the program will reach approximately 50,000 students in the Los Angeles Unified School District. It is supported with a 5-year NIDA grant totaling \$1.72 million.

## ADAMHA NEWS

Alcohol, Drug Abuse, and Mental Health Administration	National Institute on Alcohol Abuse and Alcoholism—William Mayer, M.D., Acting Director
William Mayer, M.D., Administrator	National Institute on Drug Abuse—William Polin, M.D., Director
	National Institute on Mental Health—Herbert Pardes, M.D., Director
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Editor, Kate Callen. Photography, Nilo Olin. Institute contracts: NIAAA—Wilbur Pinder, 443-4883; NIDA—Susan Lachter, 443-1124; NIMH—Marilyn Sargent, 443-4536; Saint Elizabeths Hospital—Don Coyle, 574-7034. Published biweekly by the Alcohol, Drug Abuse, and Mental Health Administration, Public Health Services, Department of Health and Human Services, to report on agency-related issues and events. Articles are free of copyright and may be reprinted.

ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

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## MAPPING MENTAL ILLNESS

*From Brain Scans to Blood Tests*

Jules Asher

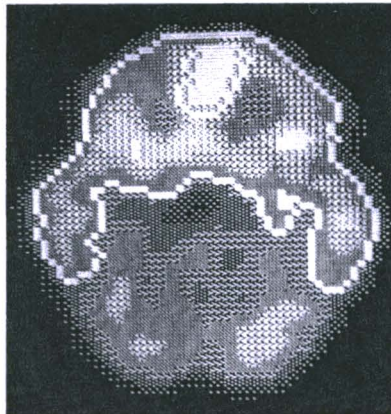
The same technology that TV weathermen use to produce colorful radar pictures of approaching thunderstorms is now being used to map the "brainstorms" of schizophrenics. From brain scans to blood tests, more and more of the sophisticated new techniques that are revolutionizing our understanding and diagnosis of mental illness rely on computers to reprocess and analyze images—among them "pictures" of the chemical and electrical events in the brain at work.

To make sense out of the brain's overwhelming complexity, scientists create new images from numerical patterns which boggle the mind trying to discern them in the form of traditional statistical tables. For instance, the newest scanners can, in effect, electronically dice up the brain into a hundred thousand little cubes, do a chemical analysis on each one, and display the results in a form instantaneously comprehensible to the human eye.

To be in the running in this high-tech world of methodological breakthroughs and rapid obsolescence, a lab must have access to a state-of-the-art computer and its complement of assorted image scanners, line printers, video screens, and the know-how to program the system.

At the National Institute of Mental Health's Intramural Research Program in Bethesda, Maryland, teams of investigators are pioneering applications of such image-processing technology with the help of staff engineers.

One group has developed vivid color video maps of cerebral metabolism which reveal the functions of different brain regions in animals. Building on this work, another lab is finding differences between normal and schizophrenic human subjects in simultaneous mapping of brain chemical and electrical activity. Yet another team is charting topographic abnormalities on maps of proteins in spinal fluid of Alzheimer's disease patients—and in the process, perfecting a technique which the researchers think may some day render present-day medical lab-testing procedures obsolete.



*PET scan of normal subject, eyes closed.*

While the source of the image differs in each case, these research technologies share in common the computer's awesome ability to store, analyze, and display usefully vast quantities of information. The computer's secret, of course, is to first convert qualitative differences into numbers. From then on, what might otherwise have been an impracticable task can be accomplished in seconds.

The computer-created image represents only the tip of the data iceberg. Literally, every speck on such a picture is backed up by a numerical value—and hence, by the wealth of possible mathematical operations, from simple averaging to complex algebraic formulas. Astonishing precision, discriminating power, and display versatility can be at the scientist's command.

### Tracing Brain Activity

In search of just such a capability, neurochemist Louis Sokoloff 5 years ago approached NIMH engineers Theodore Colburn and Wayne Rasband to help put together an image-processing system for the Institute's Laboratory of Cerebral Metabolism, which he directs. First developed for the space program and intelligence community in the early

1960s, this technology has only recently become affordable for use by a broad range of investigators.

Sokoloff's team, after a decade's work, had invented an ingenious method for mapping brain activity by tracing the path of a radioactively tagged form of glucose—the prime source of the brain's energy. In "glucose mapping," an experimental animal is injected with radioactive deoxyglucose, a glucose analogue which binds to the same brain sites as its naturally occurring cousin but does not break down as quickly. This characteristic makes it possible to study functions of various brain regions by seeing where the sugar—tagged with radioactivity—goes under a variety of conditions.

***Sokoloff's autoradiographs contained a potentially staggering amount of information, so high was their optical resolution.***

After being subjected to the experimental condition (e.g., a drug or particular activity), the animal is sacrificed and its brain frozen, cut into thin slices, and "photographed" to detect the destination of radioactive material. The picture-taking is accomplished via autoradiography, a technique based on radioactivity's ability to affect photographic film much as light does. The "hot" brain slice is simply exposed to a photographic plate for a few days. Denser areas on the resulting image represent the brain regions that were metabolically active during the experimental activity.

Sokoloff's autoradiographs contained a potentially staggering amount of information, so high was their optical resolution. Differences in image density could be translated into rates of glucose utilization, using a complex formula developed by the neurochemist and his co-workers. The problem was how to quantify the data—how to overcome the human eye's limited ability to discriminate shades of gray and make the hundreds of thousands of density measurements required to represent accurately the enormous complexity of the brain's metabolism. In short, how to analyze the image and display it meaningfully.

To attempt the job manually (using a densitometer) isn't the most exciting way to spend one's days. Nor is the result satisfactory. Each value must be typed into the computer. One ends up with long, unwieldy lists of somewhat arbitrarily calculated rates of glucose use for different brain areas. Potentially valuable information about variations within these regions is lost and autoradiographs from different experiments cannot be directly compared.

Enter the engineers. From standard, commercially available components, Rasband and Charles

Goochee of Sokoloff's lab built an image-enhancing system with a dazzling repertoire of digital tricks. It consists of a scanner to convert the original image into numbers, a computer to store and manipulate them, and a cathode ray (TV) screen and keyboard console for programming and displaying the reprocessed image data.

For starters, this humming head-saver can take upwards of 1,600 distinct readings on an area of the autoradiograph about the size of a pin head (1 mm square). Then it can, among other things, compute a mean value of density, tissue concentration, or rate of glucose utilization for that area—or for each brain structure, or for the brain as a whole. With a mere flick of a "joy stick" on the console, one can "blow up"—digitally zoom in on—a small region. Or the image can be rescanned for even finer (spatial) resolution.

Nuances in metabolism not obvious in the autoradiograph can be thrown into sharp relief using various image-enhancement stratagems built into the system. For example, since the human eye can more easily discriminate among different colors than among shades of gray, even slight differences in ranges of density can be color-coded and displayed on a color TV screen along with a key translating them into rates of glucose use. Or, the luminous intensity of certain density ranges can be exaggerated to aid pattern recognition on a black-and-white TV screen.

Among other things, Sokoloff, Goochee, and colleagues are now experimenting with three-



NIMH engineer Wayne Rasband loads tape with image data into computer.

dimensional maps of brain metabolism using multiple slices of an entire monkey brain. They are also studying brain development using maps of protein synthesis.

### Mapping a Thought

Meanwhile, other investigators—among them, Martin Reivich at the University of Pennsylvania, Michael Ter-Pogossian at Washington University, and David Kuhl and Michael Phelps at UCLA—in collaboration with Sokoloff—have adapted the deoxyglucose method and image processing to an exciting new technology which makes possible scans of human brain activity. This technique, called positron emission tomography (PET), has excited researchers, clinicians, and the media alike recently, since it produces dramatic color pictures of the human brain at work.

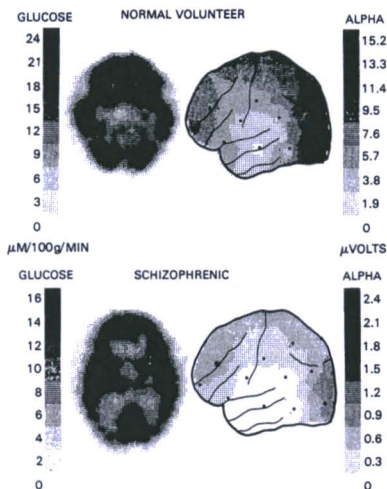
While lacking autoradiography's razor-sharp resolution, the PET scan fulfills the essential clinical requirement of affording accurate mapping of brain metabolism without endangering—much less sacrificing—the human subject. Prior to its advent, inferences about functions performed by different parts of our brain had to be made from studies of animal brains, cases of injury or surgery, or from detecting levels of electrical activity on the scalp through electroencephalography (EEG). PET now enables scientists to see such phenomena as specialization of the hemispheres: The left side can be seen literally lighting up in red when activated by a verbal task and the right side by spatial problemsolving.

**PET now enables scientists to see such phenomena as specialization of the hemispheres: The left side can be seen literally lighting up in red when activated by a verbal task, and the right side by spatial problemsolving.**

As in Sokoloff's original procedure, the subject is first injected with a radioactively tagged glucose analogue, in this case, fluorodioxylglucose, which lingers intact at the metabolically active brain sites long enough to be measured. Within the scanner, an array of gamma-ray detectors surrounding the subject's head get a fix on the sites of radioactivity. The detectors take their bearings from tiny explosions which emit gamma rays in opposite directions. The explosions occur as positrons given off by the decaying radioactive material strike electrons. The computer digitizes the intensity and locations of the millions of radioactive events and, again using Sokoloff's formula, translates the infor-

mation into color-coded maps showing active brain sites for the experimental condition and rates of glucose utilization.

The PET scan is already proving useful in the diagnosis of serious mental illness. In one study at NIMH, schizophrenic patients showed lower glucose use (suggesting less brain activity) than normal



Simultaneous PET and EEG mapping shows differences between normal and schizophrenic subjects' chemical and electrical activity.

controls in the higher regions of their frontal cortex and in the left central gray region, site of the caudate nucleus. Abnormal activity in both of these areas has been implicated in other types of research on schizophrenia, according to Monte Buchsbaum, who headed up the research team until last fall when he took a position at the University of California.

For instance, the caudate nucleus is unusually rich in dopamine receptors; schizophrenia is thought to be a possible disorder of dopamine metabolism. Moreover, the region is known to be a major center of action for drugs used to treat schizophrenia.

Buchsbaum and colleagues Richard Coppola and John Cappelletti have developed a mapping approach that employs two kinds of computer-created images at the same time. They are simultaneously mapping glucose metabolism (PET) and brainwave activity (EEG) in normal and schizophrenic subjects. The result, so far, appears to be a stunning mutual confirmation: The same brain regions that have abnormal neurochemical activity also have aberrant electrical activity!

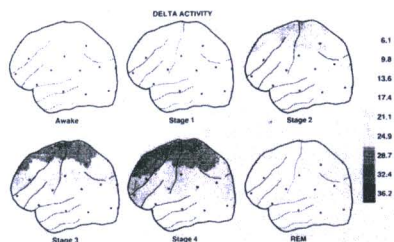
Subjects are tested with their eyes closed, a condition normally characterized by high levels of alpha-frequency brainwaves. From 16 strategically placed electrodes on their heads, the computer mathematically interpolates alpha amplitude levels to form a 4,000-element picture of alpha-wave distribution—a two-dimensional projection of the three-dimensional surface of the head. Both color TV and black-and-white dot-density displays printed out by the computer are being used. Such a multi-lead, interpolated brainwave map marks an innovation made possible by image-processing technology; previous ways of measuring brainwaves used just a few detection points and yielded data in the form of tables or graphs rather than visual representation of the whole brain in action.

The simultaneous PET and EEG maps reveal increased glucose use and decreased alpha frequency waves in the occipital region—the site of visual activity—in the brains of schizophrenics. Since the subjects' eyes are closed, activation of the brain's visual center could indicate a visual hallucination in progress. Indeed, one schizophrenic subject did report having such an experience during the test, according to Buchsbaum.

Results from a slightly different kind of brainwave mapping test suggest that schizophrenics may be unable to attend to their environment selectively. These studies compare subjects' brainwave responses to sounds and to lights to see which parts of the brain are involved in these two types of attention tasks. A component of the brainwave response to a light flash and to a tone is measured by the same 16-electrode system described earlier. This yields maps of "evoked potentials" for the two conditions. The computer then automatically subtracts

one map from the other, printing out a black-and-white dot-density picture in which the darker areas represent regions of greatest difference between the two attention conditions. These sites in the brain's frontal and parietal lobes are normally involved differentially in paying attention to light and sound. However, hardly any parietal differentiation shows up in the evoked-potential maps of schizophrenic patients.

"That suggests that the area may be depressed," explained Coppola, who noted that glucose maps also reveal little parietal activity among schizophrenics. "We expect that in order to successfully muster selective attention to do this type of task, one must use the parietal area. To find that there is no difference suggests that the schizophrenic is not able to selectively direct attention."



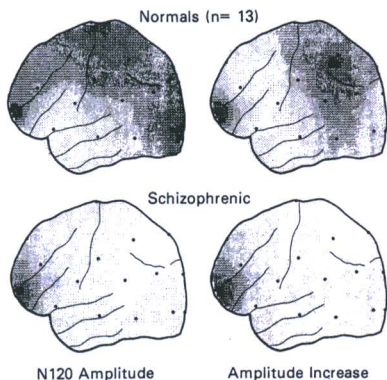
Delta brainwave activity permeates the brain from the top down as sleep deepens.

The EEG mapping techniques are still too new to predict their future clinical applications, but the NIMH investigators speculate they will play a role as an adjunct to PET, and perhaps—because they are much cheaper—as an alternative to the brain scans for some purposes.

Wallace Mendelson recently used the technique to produce a dramatic sequence of maps revealing what happens in the brain when we fall asleep. As sleep deepens, delta-frequency brainwave activity increases in both power and pervasiveness, spreading down like a nightcap from the top of the brain to permeate parietal and frontal areas by Stage 4 sleep. Delta waves virtually vanish during REM sleep periods. Mendelson's maps demonstrate heretofore unexpected differences in the location of brain electrical activity across the sleep stages. The technique adds a topographic dimension to the interpretation of sleep stages and may prove useful in the diagnosis of sleep disorders.

Using the evoked-potential EEG mapping approach, Frank Putnam of NIMH recently turned up the first biological evidence for the controversial idea that some people have multiple personalities, with dissociation and amnesia for each other. Putnam

#### N120 ATTENTION EFFECT



EEG evoked-potential maps show no change in parietal lobe of schizophrenic patient in response to a change of stimulus, suggesting an attention deficit.





Researchers Richard Coppola and John Cappelletti call up PET scan on video screen.

and colleagues found that EEG responses to a flash of light changes in both amplitude and latency for each of four personalities in 10 patients tested; those of normal control subjects feigning multiple personality symptoms—play acting—did not change. The results suggest that alternate brain circuits for each personality could account for the memory losses, changes in behavior, self-concept, and other symptoms experienced by multiple-personality patients. Evoked potentials of obsessive-compulsive personalities resembled those of patients with the singular diagnosis of obsessive-compulsive disorder.

### Hunting the Huntington's Protein

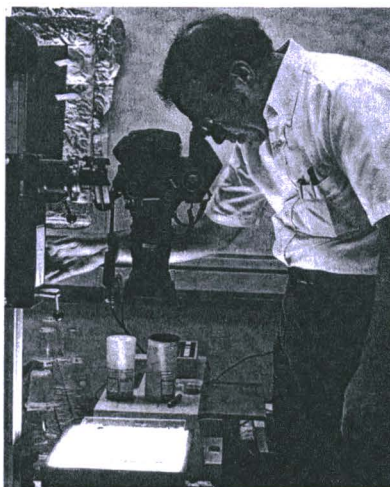
Despite the mounting evidence for a biochemical role in disorders like schizophrenia and manic-depressive illness, no abnormalities specific to these diseases have yet been detected at the molecular level. The reason: Aside from water, our bodies are composed largely of proteins—perhaps 30,000-50,000 different kinds. Yet, so far only about 1 percent of these essential building blocks—involved in virtually all diseases—have been identified.

Some investigators ask, in effect: "How can we understand the machine if we don't have the parts list?" They are proposing a massive identification program to create a computerized Human Protein Index. Central to that effort is a fast-developing protein-mapping technology at the cutting edge of image-processing applications.

At NIMH, a research team led by biochemist Carl Merril has already successfully used the visual technique to confirm protein abnormalities in one of the few central nervous system disorders with an established molecular basis: The Lesch-Nyhan Syndrome, a disease that causes self-mutilation and spasticity.

The Syndrome had previously been linked to a deficiency in an enzyme called HPRT. The group found that enzyme along with other secondary protein changes on protein maps of Lesch-Nyhan disease patients. They then proceeded into uncharted territory.

"We're going disease by disease, trying to find markers for neuropsychiatric disorders now lacking good diagnostic indicators or having an unclear molecular basis," explained research psychiatrist David Goldman. He and Merril have mounted an ambitious search for possible errant



Carl Merril photographs gel protein map.

proteins and DNA segments that might be implicated in Huntington's disease and Alzheimer's disease.

Huntington's disease is an inherited, progressively debilitating condition whose best-known victim was folksinger Woody Guthrie. It is marked by bizarre writhing and twisting movements, memory loss, and psychiatric symptoms. Finding a telltale protein defect would enable doctors to identify and counsel members of affected families likely to develop the illness. Alzheimer's disease is a debilitating disorder involving organic loss of intellectual function.

---

***The protein or DNA maps of different individuals look ostensibly alike—we're all made of the same stuff.***

---

The investigators are using a technique called computer-assisted "two-dimensional electrophoresis" to hunt down protein abnormalities. A subject's blood or skin cells are used to obtain proteins and DNA. The proteins are induced to separate on a flat gel to create a "map," a characteristic pattern of spots. This procedure involves passing an electric current across the gel horizontally and vertically, thus sorting out the proteins on the basis of their electrical charge (or pH) and their mass. To make the patient's proteins or DNA visible, a special silver stain developed by Merrill is added to the gel.

The protein or DNA maps of different individuals look ostensibly alike—we're all made of the same stuff. It takes a digital scanner and computer to detect quantitatively minute differences in density or position of the spots that might be linked to diseases. The computer, in effect, creates a picture of the gel which can be stored and analyzed in digital form. Pictures of different subjects' gels can be called up on a video monitor and compared. Any variations in position or density will show up in different colors on the screen.

For example, a gel from a Huntington's patient can be colored red and that of a normal person blue, then the two can be overlapped for comparison. Or, different image-density ranges in the spots can be color coded so that a protein of abnormal concentration will appear a different color than its normal counterpart.

Merrill's computer system is presently capable of automatically analyzing an entire gel map of up to 1,000 proteins with 95 percent accuracy—all in a matter of minutes.

In the Alzheimer's study, the investigators are charting polymorphisms, protein or DNA variations which, while not themselves directly linked to the disease, might hint at where a defective protein

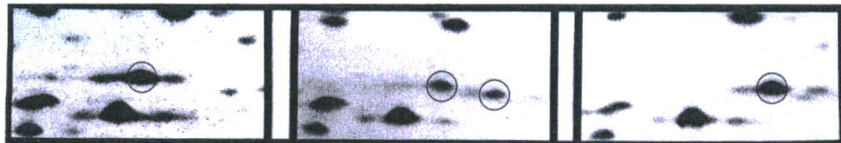
or DNA segment may be on the map. As more are discovered, these polymorphic variations—which occur in 1 percent or more of the general population—may eventually constitute a constellation of telltale signals or reference points covering every part of the protein or genetic map. They could be used to pinpoint molecular defects in many different diseases, since virtually all serious illness involves changes in proteins. The NIMH investigators believe the computerized mapping technology may eventually replace many conventional test-tube lab procedures. "This technology will totally revolutionize medicine," predicted Merrill, noting that some major firms have already expressed interest in developing the system commercially. "We can see (on the reprocessed gel) the same proteins currently measured laboriously in a routine lab analysis within a hospital—and much more.

New possibilities seem to be opened up by the computer-imaging revolution at every turn, so rapid is the pace of development. Merrill and colleague Michael Jacobowitz recently teamed protein mapping with histochemical techniques to compile the world's first protein atlas of the brain. In essence, they created protein maps for each discrete brain structure by punching out samples of tissues from brain slices, sorting out the proteins on gels, and analyzing them by computer. Each brain structure yields its own characteristic pattern of spots, indicating that each is composed of a somewhat different mix of proteins.

In yet another application, Miles Herkenham, Candace Pert, and colleagues pooled their neuroanatomical and neuropharmacological expertise to produce stunning, color-coded maps of neurotransmitter receptors in brain. In the case of opiate receptors, drugs like morphine and naloxone were radioactively labeled and injected into brain tissue in which biological activity was still intact. Slices of such "hot" tissue were then incubated with film to obtain autoradiographs revealing the sites-of-action for these drugs—and their naturally occurring counterparts, the endorphins and enkephalins. The receptor maps indicate a broader role for the brain's own opiates beyond just killing pain. They show the receptor system to be widely distributed with dense concentrations in



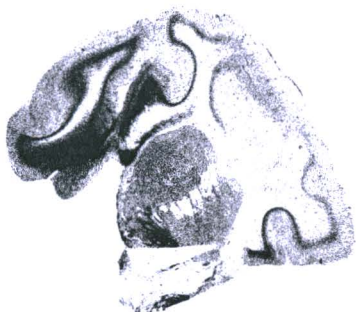
Research psychiatrist David Goldman examines computer-generated protein map.



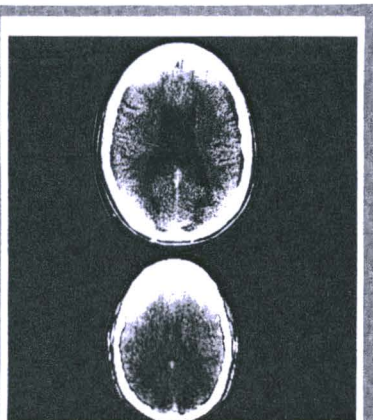
A polymorphic protein (circled) varies in position and/or density on these magnified sections of electrophoretic gel maps from three different subjects.

certain areas. This suggests that the opiates may constitute a basic neurotransmitter system with various functions in different parts of the brain. The maps also reveal that opiate receptor distribution (and probably system function) also varies greatly between animal species. The methodology is already being used to study neurotransmitter systems in brains of recently deceased humans, and PET scan maps of neurotransmitter receptors in living humans may now be feasible, according to Pert.

*Continued on S-8*



Autoradiographs of opiate receptors (top) and neurotensin receptors (bottom) in rhesus monkey cortex and striatum show relatively wider and denser distribution of the opiate system, suggesting broader effects.



CAT scans of schizophrenic patients show abnormally large ventricles (top) which distinguish a more severe form of the illness.

Using the CAT scanner, which produces an X-ray picture of brain structures, IRP researcher Daniel Weinberger and colleagues have found that some severely ill schizophrenics have enlarged ventricles in their brains. Patients with this abnormality also tend to show greater neuropsychological problems, poorer response to neuroleptic drugs that act on the dopamine system, poorer adjustment during childhood, and more pronounced negative symptoms of withdrawal, social isolation, and passivity. Lynn Delisi has reported enlarged ventricles in certain young patients who have not yet developed full-blown schizophrenia, suggesting that schizophrenia may involve long-term brain atrophy rather than an acute event in a previously well-functioning individual, at least in the case of these more severely ill patients. However, the possibility remains that all schizophrenics suffer from a common pathological process, since the statistical distribution of the ventricle abnormality does not suggest two discrete subgroups.

Anticipating these and other studies, NIMH is acquiring its own state-of-the-art PET scanner with more than twice the resolution of NIH equipment now in use. Intramural Research Program Director Frederick Goodwin explained that a cyclotron being built in close proximity to the scanner will minimize danger to patients from exposure to radiation, since it will permit use of ultra short half-life radioisotopes in labeling compounds under study.

## SPACE UNDERWEAR REVEALS BODY RHYTHM SECRETS

Jules Asher

NIMH scientists have transformed a suit of NASA surplus space underwear into a unique tool for studying the biological clock abnormalities implicated in manic-depressive illness and sleep disorders.

NIMH Intramural researcher Wallace Mendelson and engineer Tom Talbot are using the souped-up long johns to abolish (temporarily) the daily body temperature rhythm in a research subject.

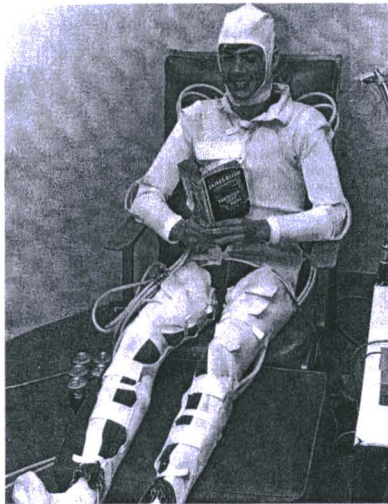
The high-tech thermal underwear employs advanced biomonitors and computer technology to keep the subject at a constant temperature by pumping just the right mixture of hot and cold water through a network of plastic tubes sewn into the garment.

Human body temperature normally varies about 1½ degrees over the course of a day, usually peaking in late afternoon and dropping to its low point in the wee hours of the morning. Studies of sleep in isolation chambers free of day/night cues have shown that the point in the temperature rhythm at which one falls asleep predicts how long sleep lasts.

While normal subjects typically fall asleep when their temperature is in a dropping phase, depressed patients and perhaps insomniacs often find themselves trying to sleep during a rising phase. Their temperature rhythm is said to be "phase-advanced" relative to the sleep/wake cycle.

NIMH researchers have observed dramatic remissions in symptoms when the two rhythms are brought back into phase, as when depressed patients go to sleep several hours earlier than their normal bedtime. The computer-controlled space suit may offer scientists a more direct way of realigning the two rhythms.

It also promises to reveal any role the temperature rhythm may play in regulating the sleep/wake cycle. In addition to possible effects on length of



World's most sophisticated thermal underwear stabilizes body temperature through "plumbing" sewn into garment.

sleep, temperature may also affect timing of rapid eye movement (REM) sleep; studies show that most REM sleep occurs around the low point of the temperature rhythm.

The NIMH investigators believe the sleep/wake cycle is controlled mainly by a "clock" or pacemaker in the brain's hypothalamus which is set each day by cues from the environmental day/night cycle. The temperature rhythm, along with daily variations in the hormone cortisol and REM sleep, are in turn thought to be controlled by another pacemaker only indirectly influenced by environmental cues via the first pacemaker.

***Studies of sleep in isolation chambers free of day/night cues have shown that the point in the temperature rhythm at which one falls asleep predicts how long sleep lasts.***

Alterations in coupling of these two pacemakers—to each other or to the environment, or in their intrinsic periods—are thought to account for the phase-advance problem in affective disorder.

The current studies are designed to determine whether sleep duration and REM sleep are directly controlled by body temperature or independently regulated by a biological clock.

## Informed Consent of Research Subjects: Can Guardians Decide for Mental Patients?

This article is the second in a 2-part series on informed consent from potential research subjects or their legal guardians. The first article examined mental patients' competency to make decisions. This article focuses on third-party consent from legal guardians.

Current HHS regulations stipulate that third-party consent is required to protect "vulnerable" populations from participating in research programs that may not be in their best interests. These populations include the mentally and physically disabled or those subject to coercion because they are institutionalized or imprisoned.

John Doe, a hospitalized paranoid patient, refuses to participate in a study that involves a medication that could prove beneficial to him. He believes the researcher wishes to poison him. His wife, who is his legally appointed guardian, shows no understanding of his illness or of the study and also refuses consent. Has this patient been protected?

"The ironies involved in the legal guardianship issue cannot be ignored," said Natalie Reatig, Program Specialist, NIMH Pharmacologic and Somatic Treatments Research Branch.



Natalie Reatig

"The goal is protection of patients, but legal guardians may be the least concerned or knowledgeable about the patient's illness, wishes, and opinions about research. On the other hand, the most knowledgeable person may well be the research investigator whose judgment about the subject's preferences may be influenced by pressures to recruit participants for the study."

The difficult issues involved in third-party consent have been discussed in several journals, said Reatig. In an October 1982 IRB article, Drs. Barbara and Michael Stanley, Wayne State University School of Medicine, point out that guardian consent, although altruistically motivated, can produce negative consequences for patients.

Essentially, it deprives patients of the right to self-determination, the two NIMH grantees say. It may exclude them from research in which they wish to participate or subject them to unwanted participation depending on their guardian, whose competency is not tested, they emphasize.

Further, labelling the mentally ill as incompetent counters therapeutic goals, the Stanleys contend. It encourages infantilism, reduces self-esteem, increases stigma, and makes reintegration into the community more difficult.

In addition, third-party consent presents problems for investigators, said Reatig, referring to an article by Dr. Paul Appelbaum, Western Psychiatric Institute and Clinic, Pittsburgh, and Dr. Thomas Gutheil, Massachusetts Mental Health Center, which appeared in the September 1980 *Journal of Clinical Psychiatry*.

The investigators discuss the ethical dilemma faced by clinicians when legally appointed guardians refuse to make decisions, or make bad decisions, on behalf of patients. From a medically ethical viewpoint, the clinician is obligated to provide the needed care, but to do so requires legal procedures that may be costly and time-consuming, are possibly fruitless, and could result in delay detrimental to the patient's welfare.

Among the problems they have encountered, say Appelbaum and Gutheil, are legal guardians who appear less competent than the patients, patients without legal guardians, attorneys who refuse to be guardians for fear of liability, and judges who in the absence of guardians refuse to authorize treatments because of concern that their rulings might be overturned by a higher court.

"These problems arise in cases where established treatments are being recommended," Reatig pointed out. "Imagine the difficulties when the potential subject is being offered experimental treatment or membership in a no-treatment control group!"

"Since HHS regulations require that Department research funds be awarded only to institutions with Initial Review Boards that assure adequate consent procedures, it is important—for practical as well as ethical reasons—that the ambiguities and difficulties involved in informed consent and legal guardianship issues be resolved," said Reatig.

To address these issues, she organized a January 1981 workshop for investigators studying the issue of competency to consent to research. Proceedings of the workshop are available by calling (301) 443-3528 or writing to Reatig at Room 10C-06, 5600 Fishers Lane, Rockville, MD 20857.

### BUDGET from page 1

more. Clinical research beds at the ARC also would be increased, and a pilot outpatient research program would be initiated.

Research training funds in all three Institutes are at approximately the same budget levels in the 1984 request as in 1983—\$15.5 million for NIMH, \$1.0 million for NIDA, and \$1.2 million for NIAAA. These funding levels would support a total of 1,000 trainees, with a 5-percent increase in annual stipends.

The 1984 budget proposes phaseout of all mental health clinical training, consistent with elimination of alcohol and drug abuse clinical training in 1983.

In the area of prevention, the 1984 budget would support a number of activities aimed at reducing ADM problems and lessening the need for treatment. Alcohol and drug abuse media campaigns directed at youth would receive support, and the 1983 Secretary's Initiative on Teenage Alcohol Abuse Prevention would be continued.

The 1984 budget request for ADAMHA excludes funds for State alcohol, drug abuse, and mental health services block grants, again proposing that the program be administered by the Office of the Assistant Secretary for Health.

A second budget request sent to Capitol Hill by the President seeks \$62,744,000 for operation of Saint Elizabeths Hospital in FY 1984. This budget assumes that a corporation will be established to administer the Hospital by the fourth quarter of 1984. HHS, the District of Columbia, and the Office of Management and Budget are now developing legislation to establish such a corporation.

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**SURVEY** from page 1

almost as many high school seniors smoked marijuana (29 percent) "in the past month" as smoked cigarettes (30 percent).

Further, approximately two-thirds of American young people (64 percent) try an illicit drug before they finish high school. Even after the decline in drug use, American youth still have the highest levels of illicit drug use in any nation in the industrialized world.

The new National Household Survey was conducted by Dr. Ira Cisin of George Washington University. The survey, which interviewed individuals in American households, revealed that 33 percent of the household population age 12 and older has used marijuana, hallucinogens, cocaine, heroin, or psychotherapeutic drugs for nonmedical purposes at some time during their lives. In addition, approximately one in five Americans (19 percent) had used these drugs within the past year.

Meanwhile, negative health consequences of heroin use appear to have risen, according to information from emergency rooms and medical examiners in NIDA's Drug Abuse Warning Network (DAWN). Through the first three quarters of 1982, total DAWN "mentions" for heroin were 9,139. This represents roughly a one-third increase over the comparable time period for 1981 (6,968 mentions).

Among the factors contributing to the increase in heroin's serious health consequences are chronic use, increasing doses, and use of combinations of drugs.

"POT HURTS"

## NIDA Media Campaign Takes Aim at Young People's Use of Marijuana

NIDA will soon launch a marijuana media campaign aimed at youngsters age 11-13 and teenage drivers.

Scheduled to begin in late spring, the campaign will seek to discourage young people from experimenting with marijuana by making them aware of the drug's effects on health.

The campaign uses three television and three radio public service announcements, each 30 seconds in length, to illustrate the



negative impact of marijuana use. The announcement will re-enact frank discussions among 13- to 17-year-olds of how smoking marijuana affected their lives; these will include accounts of impaired motivation, learning skills, and driving ability.

To reinforce the message of the radio and TV spots, the campaign will distribute printed materials with information on marijuana and other drugs of abuse, and advice on peer pressure and "how to say no." NIDA will promote the campaign with the help of a network of intermediary groups; chief among these will be drug abuse agencies and programs at the State and local levels, and national/local organizations. The Institute will provide the intermediaries with the media spots and printed materials to aid them in reaching the youth of their communities.

"Marijuana use among young people is a national problem, but we have to tackle it on the local level," says Jean Westler, NIDA communications Services Branch, who is directing the campaign. "That's why it's critical for us to get State and local support."

Anyone interested in supporting the campaign or in obtaining materials for local drug abuse prevention activities can contact Westler at 10A-46 Parklawn Building, (301) 443-1124

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### NIAAA-HCFA Report Low Treatment Cost In 1st Year of Demo

The average cost of treating more than 2,300 alcoholics in nonhospital settings was only \$533.13 per patient during the first year of a demonstration project sponsored jointly by NIAAA and the Health Care Financing Administration, officials of the two agencies recently reported.

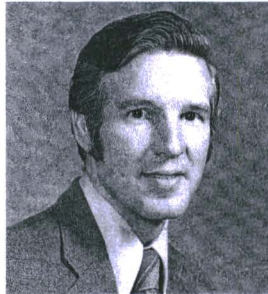
NIAAA's John Noble and HCFA's Dr. Andrew Solarz discussed the demonstration project at the annual meeting of the Alcohol and Drug Problems Association of North America (ADPA) last month.

The 4-year demonstration was designed to test whether treating alcoholics in outpatient and residential inpatient care settings is less expensive than hospital care. Planners believe that if this is true, Medicare and Medicaid could save an estimated \$20

See MEDICARE (P. 3, Col. 1)

### Nelson Named St. Elizabeths Superintendent

Former ADAMHA Staffer Assumes Post



Dr. Scott H. Nelson

Assistant Secretary for Health Edward Brandt has announced the appointment of Scott H. Nelson, M.D., M.P.H., as Superintendent of Saint Elizabeths Hospital.

Nelson, a member of the PHS Commissioned Corps, has been serving as Deputy Secretary for Mental Health of Pennsylvania's Department of Public Welfare since January 1980. Earlier, the 43-year-old psychiatrist served as Director of the Behavioral Health Services Division, New Mexico Health and Environment Department, from 1976 to 1980.

In both State positions, he was responsible for management and patient care in large, complex mental hospital systems, as well as community-level treatment clinics.

Before assuming his New Mexico post, Nelson was Director of the ADAMHA Office of Program Planning and Evaluation for 3 years. Earlier, he was Principal Medical Officer and Principal Mental Health Officer of the Job Corps.

See NELSON (P. 2, Col. 1)

#### AT APA COUNCIL

### Pardes Outlines Vital Role of Psychologists in NIMH Programs

"The worst is behind us," National Institute of Mental Health Director Herbert Pardes told the Council of Representatives of the American Psychological Association last month, referring to fiscal constraints upon the mental health field.

Addressing the Council at APA's annual meeting in Anaheim, Calif. in late August, Pardes urged its members to continue to work with the Institute and with other mental health groups.

"Mutual consultation on issues of concern has been invaluable in the past, and I would encourage it in the future. We want to hear directly from you and want to be able to tell you about our concerns directly," he said.

Pardes told the psychologists that despite an easing of some pressures, budget concerns still exist in all areas of health and human services. Yet, he said, Secretary Margaret Heckler and other HHS officials strongly support health programs.

"Mrs. Heckler's concern about health research and her responsiveness to people in pain is clear in the fact that her first act

was to form an Alzheimer's Disease Task Force," Pardes said.

Increased support for mental health programs can and should be attributed to recent research achievements in this field, he remarked, and pointed out that "over the past 5 years, outsiders' images of mental health have been upgraded substantially."

The contributions of the psychology field to NIMH research programs are highly valued, Pardes said, noting that the profession is well-represented in the NIMH research portfolio.

"In 1982, investigators with degrees in psychology received the largest share—39 percent, or \$35.4 million—of extramural research funds, and the largest number of research grants—46 percent—among all mental health disciplines.

"Still, misperceptions persist regarding the Institute's commitment to a strong behavioral science component in the mental health research portfolio. Unchecked, they pose an increasingly serious threat to the vitality of the behavioral science research

See APA (P. 7, Col. 1)

### APA Session Considers ADM Problems Among Homeless

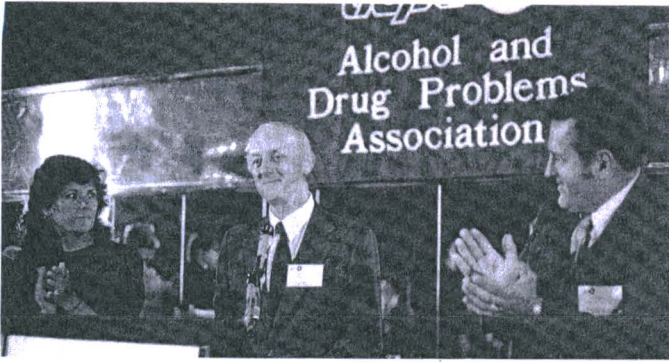
Skid Row in Los Angeles is fast becoming an "institution without walls," the bleak result of "Greyhound therapy" that is being practiced in an increasing number of communities throughout the country, says Los Angeles psychiatrist Rodger Farr.

Farr, participating in a session at last month's annual meeting of the American Psychological Association on the implications of homelessness for mental health policy and practice, described "Greyhound therapy" as the practice of providing patients discharged from mental health facilities with a one-way bus ticket to the destination of their choice.

For hundreds of patients a month, that choice is L.A., with its temperate climate, lure of promise, and big-city anonymity. But most new arrivals get no farther than Skid Row, a rundown, 2-square-mile area bordered by freeways and the Los Angeles River and housing the city's train station and

See HOMELESS (P. 6, Col. 1)

## Archer Receives National Award



Loran Archer, NIAAA Deputy Director, is cited for his "continuous service in the alcohol and alcoholism field" by the Alcohol and Drug Abuse Problems Association of North America at its annual meeting August 30 in Washington, D.C. Archer is seen here being applauded by Kay Hardin, ADPA past President (left), and Larry Monson, President, as he received ADPA's Outstanding Service Award for his contributions to the field as NIAAA's Acting Director for more than a year and for his work as Director of the State alcoholism program in California prior to joining NIAAA.

### NELSON from page 1

"We are pleased that a person with Dr. Nelson's experience and exceptional credentials will be at the helm of Saint Elizabeths Hospital, whose history of high-quality patient care stretches all the way back to its founding in 1852 by Dorothea Dix," Brandt said.

"We look forward to Dr. Nelson's leadership in achieving management improvements designed to assure continuation of this record."

Current Superintendent William Dobbs, M.D., expressed the wish to retire several

months ago, but stayed on until a replacement could be appointed. Dobbs became Superintendent in 1979, capping a career at the Hospital which began in 1954. Under his stewardship, Saint Elizabeths Hospital regained accreditation of all its programs.

"Dr. Nelson brings to Saint Elizabeths Hospital not only a wealth of administrative experience, but also a high level of clinical knowledge and of human compassion," said Dr. Herbert Pardes, Director, National Institute of Mental Health, which has direct supervisory responsibility for Saint Elizabeths' operations. "These qualities will serve the Hospital's patients extremely well."

Nelson has served as Chairman of the American Psychiatric Association's Task Force on Involuntary Commitment of Mental Patients, and as President and Chairman of the Board of the National Association of State Mental Health Program Directors, among many other professional assignments.

He received his M.D. degree from Harvard

## Israeli Official Named NIAAA Fellow

Pnina Eldar, Director, Alcoholism Treatment and Prevention Programme, Israeli Ministry of Labour and Social Affairs, discusses her month-long stay in the United States as a Fellow in the NIAAA Work/Study Program at a recent session with ADAMHA and NIAAA staff.

Eldar, founder of the Israeli Society for the Treatment of Alcoholism, spent most of her time working in alcohol treatment centers in Albany, Buffalo, and New York City.

At the meeting, Eldar remarked that, since Israel does not have laws controlling the sale and consumption of alcohol, "a child can buy liquor and drink it." She also reported that serious efforts to fight alcohol abuse in her country were hampered for many years by a widespread myth that Israelis had no problems with their use of alcohol.



Pnina Eldar

Medical School cum laude, and served his psychiatric residency at Massachusetts Mental Health Center in Boston. He is certified by the American Board of Psychiatry and Neurology. He also holds a Master of Public Health degree from Harvard School of Public Health.

—James Helsing, ADAMHA

## St. E's Medical Society to Meet

The Medical Society of Saint Elizabeths will hold its Annual Scientific Meeting at the Hospital September 30. The theme of the meeting is achieving systematic changes in patients through psychotherapy.

The morning session will be devoted to papers written by Hospital staff members who are active in therapy. The afternoon will feature two guest speakers: Jeffrey Zeig of the Milton H. Erickson Foundation, and Cloe Madanes of the Family Therapy Institute of Washington, D.C.

All interested persons are invited to attend. Registration forms can be obtained by calling Dr. Jack Moran, (202) 574-7714. Registration fee is \$17.50. Luncheon is \$5 additional.

## ADAMHA NEWS

Alcohol, Drug Abuse  
and Mental Health Administration  
William Mayer, M.D., Administrator

National Institute on Alcohol Abuse and Alcoholism—Robert Niven, M.D., Director  
National Institute on Drug Abuse—William Pollin, M.D., Director  
National Institute of Mental Health—Herbert Pardes, M.D., Director

Mildred Lehman, Associate Administrator for Communications and Public Affairs ADAMHA Office of Communications and Public Affairs

Editor: Kate Callen. Art Director: Walter Clark. Photography: Nilo Otin. Institute Contacts: NIAAA—Wilbur Pinder, 443-4883. NIDA—Lenore Gelb, 443-1124. NIMH—Marilyn Sargent, 443-4536. Saint Elizabeths Hospital—Don Coyle, 574-7034. Published biweekly by the Alcohol, Drug Abuse, and Mental Health Administration, Public Health Service, Department of Health and Human Services to report on agency-related issues and events. Articles are free of copyright and may be reprinted.

ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

ADAMHA News invites comments. Phone (301) 443-3783 or write to: CPA, Room 12C-15, 5600 Fishers Lane, Rockville, Md. 20857.



## N CHICAGO COMMUNITY

## Study Finds Most Promising First Graders Using Drugs at Higher Levels 10 Years Later

Youngsters who scored high on I.Q. and school readiness tests as first graders in Woodlawn, Ill., schools 10 years ago now use drugs of all kinds (except cigarettes) at higher levels than their peers who had lower scores, according to a NIDA-funded longitudinal study by Dr. Sheppard Kellam and colleagues at The Johns Hopkins School of Hygiene and Public Health.

Woodlawn is a low-income urban black community on Chicago's South Side. The Hopkins investigators began a prospective study in 12 neighborhood schools there in 1972 to explore early developmental pathways of drug abuse among inner-city black children.

Initial interviews with subjects took place when they were in first grade (ages 6-7). They recently were re-interviewed at ages 16-17.

While the study population as a whole now uses high levels of all substances other than hard drugs, some differences were found between males and females. The association of high I.Q. and readiness scores with subsequent drug use held true for both sexes, however.

For males only, aggressive behavior in first grade strongly predicted heavy teenage drug use 10 years later. On the other hand, shyness by males in the first grade, by itself, was found to inhibit drug, alcohol, and cigarette use 10 years later.

A combination of aggressiveness and shyness in the first-grade boys, however, was associated with even higher levels of drug use at 16-17 than aggressiveness alone.

For females, neither aggressiveness nor shyness in the first grade was associated with later substance use. To the contrary, shyness by girls was associated with a delay in first use of hard liquor.

"Aggressiveness" and "shyness" were defined in the study as behavior which contrasts with that normally expected from first graders, i.e., adapting to classroom tasks involving social participation, and conforming to rules and authority in the classroom.

To explore the findings further, the scientists undertook several special analyses. They also drew on previous research evidence that sex differences in later drug use levels was partly explained by levels of attachment to family, school, and peers.

In addition, they compared the early predictors of drug use to those for other outcomes such as delinquency and psychopathology. In general, antecedents of drug, alcohol, and cigarette use appeared to be similar to those predicting delinquency.

The study also examined the impact of early intervention. During the course of the first-grade school year, a program of weekly classroom group meetings and individual



consultations with a mental health professional was established in 6 of the 12 schools. The program involved children, teachers, and parents.

Evaluation indicated that such intervention improved social adaptation modestly but consistently at least up to the third grade. However, overall levels of psychological well-being remained the same at both intervention and control schools.

Analysis of long-term effects on alcohol and drug use and other outcomes is in progress. Preventive traits are being planned which will specifically aim at conduct problems in first grade, particularly at children who show combined aggressiveness and shyness. The trials will be part of a university-wide preventive intervention research effort conducted by the Department of Mental Hygiene at Hopkins.

### MEDICARE from page 1

million annually in alcohol treatment costs.

The Medicare-Medicaid Demonstration of reimbursement for Nonhospital Alcoholism Treatment Services is being conducted in Connecticut, Illinois, Michigan, New Jersey, New York, and Oklahoma.

Within the six States, 74 alcoholism treatment programs are involved, ranging from small alcohol treatment centers to inpatient residential facilities for alcoholics.

Noble, Acting Deputy Director, NIAAA Division of Biometry and Epidemiology, said, "A decade of experience with federally funded treatment services indicates that care in nonhospital settings is an effective treatment response that offers high-quality care."

Services covered by the demonstration include detoxification and alcohol rehabilitation, said Solarz, who also noted that 47 percent of the Medicare eligibles receiving alcohol services in 1982 were under 65 years of age. He said these patients were entitled to treatment based on severe disability.

"They represent 10 percent of the Medicare population," Solarz noted. "As the demonstration progresses, we will be watching very closely to see if this trend continues."

At the ADPA session, Noble highlighted another aspect of the study—documenting

the role of nonphysician State-approved caregivers as "gatekeepers" for Medicare treatment and reimbursement.

"This is an extremely important part of the demonstration and has a direct bearing on the ultimate objective of the project: expanding the availability of lower-cost services," Noble said.

He explained that utilizing such support personnel as qualified recovering alcoholics cuts down on the more expensive services of highly trained professionals mandated by current Medicare law and regulations.

He also commented that the new Medicare Prospective Reimbursement System, which will go into effect October 1, will "dramatically change" the demonstration project's ability to evaluate comparative costs of hospital versus nonhospital alcoholism treatment services.

"The new Medicare law replaces what we call 'reasonable cost' retrospective payments with a system called Diagnosis Related Group (DRG) payments," Noble said. "The DRG approach provided a predetermined single payment rate for alcoholism treatment, whether it is detoxification or longer term rehabilitation and treatment, thus affecting our ability to make cost comparisons."

—Wilbur Pinder, ADAMHA

## Comments Sought on Confidentiality Regs

Revised Federal regulations on maintaining Confidentiality of Alcohol and Drug Abuse Patient Records were published for comment in the *Federal Register*, Part VI, on August 25.

The regulations implement Federal statutes which restrict disclosure and use of alcohol and drug abuse patient records by federally funded programs specializing in the treatment of such persons.

Among many substantive changes proposed, the revised rules would require alcohol or drug abuse treatment programs, thus patients a written statement of Federal confidentiality requirements protecting their right to privacy.

Another major revision would limit the regulations' applicability to specialized alcohol or drug abuse treatment programs, thus deregulating general hospitals that do not have such programs.

ADAMHA invites your written comments on the proposed revisions. Comments must be received on or before October 24, 1983. Send comments to: Judith Galloway, Division of Legislation and Data Policy, 5600 Fishers Lane, Room 13C-06, Rockville, MD 20857.

# British Child Expert Visits NIMH

Dr. Michael Rutter, world-renowned child psychiatrist at the University of London, spent 3 days this summer in a unique capacity as Visiting Scholar at the National Institute of Mental Health.

Rutter's agenda was arranged to capitalize on his vast knowledge and expertise in the mental health field. Under the auspices of the NIMH Division of Communication and Education, he presented lectures and seminars on his research findings. He also held individual consultations with various NIMH units, including the Intramural Research Program, the Center for Prevention Research, and the Division of Biometry and Epidemiology.

Using Rutter's stay as a model, the Institute will extend its Visiting Scholar program to exploit more fully the availability of prominent scientists from both the United States and abroad.

## Schooling and Marriage Can Buffer Effects of an Unhappy Childhood

Good experiences in school and strong marital relationships can greatly buffer the ill effects of an otherwise adverse childhood, explained Dr. Michael Rutter, a well-known British psychiatrist, at a recent NIMH Staff College seminar at which he presented his findings from a study on ex-institutionalized women.

"The results from our study support a much more fluid view of personality development, with the opportunity for change existing right into adulthood," he said. "Early adverse childhood experiences may be quite long-lasting, but even so, intervening experiences can ameliorate the long-term effects."

Rutter and his colleagues studied 94 young women who had lived in institutional group homes in the early 1960s. The girls had entered the program not because they exhibited disturbed behavior but because their parents had difficulty rearing them, said Rutter.

The majority of the "ex-care" girls (those young women who lived in the group homes) had experienced prolonged stays in institutions from an early age, with periodic visits home. They were compared with a control group of 51 girls who lived with their families while growing up.

The results of the study proved no exception to what other researchers have discovered about children in long-stay institutions: namely, a high prevalence of emotional and behavioral problems. Some of the findings Rutter reported were:

- Six times as many of the ex-care girls as the controls showed disturbed behavior at school.
- Two-fifths of the ex-care group had become pregnant by age 19; none of the control group had.
- Ex-care women were less likely to be in stable cohabitating relationships. Only 61 percent of the ex-care group were living with the biological father of their children, while all of the control group who had children were with the biological father.
- Serious failures in parenting were evident only in the ex-care sample. Nearly one-fifth of the children of ex-care mothers

had been taken into foster homes or placed in children's homes, and there had been one case of infanticide.

• A scale to assess parenting found that two-fifths of the ex-care sample had a rating of poor parenting, compared with only about one in nine of the control group—a nearly four-fold difference.

On the other hand, Rutter emphasized, nearly one-third of the women reared in institutions proved themselves to be able parents.

"In spite of the fact that all of them had experienced an institutional rearing for part of their childhoods, and most had experienced rather poor parenting when living with their own families, there was great heterogeneity of outcome in the ex-care sample, with a substantial minority showing good parenting," said Rutter.

The research team set out to discover what ameliorating factors had helped these ex-care women become able and good mothers. The answer: positive school experiences and supportive husbands.

Positive school experiences were defined as: scholastic achievement; good relationships with peers; and a feeling of achievement in three or more areas of school life (sports, drama, arts, and crafts).

While 21 percent of the girls who enjoyed school turned out to be poor parents, a far greater percentage (62) who did not enjoy school were poor parents, Rutter reported.

In addition, over one-half of the women with supportive spouses were good parents—a rate as high as that in the control group.

"It might be thought," said Rutter, "that our finding about the importance of a good marital relationship has few practical implications—after all, we can scarcely prescribe good spouses for our clients."

But such a reading is too narrow a view of the matter, he commented. Further investigation revealed a significant correlation: those who had chosen supportive spouses also had taken a more active role in planning all aspects of their lives.

A crucial question remained: Why did some institution-reared women actively plan

their lives whereas others did not? As Rutter explained it, "The girls who reported having had positive experiences at school were significantly more likely to have planned their marriages."

The researchers discovered that positive school experiences among the ex-care group were more closely related to achievements in the nonacademic sphere of school life than to exam success. (The opposite was true for the control group.)

"The data on schools indicate that they do have an impact—whether you like it or not—and that their sphere of influence is social as well as pedagogical," Rutter commented. "It may be that the girls acquired a sense of their own worth and of their ability to control their destinies as a result of their pleasure in success and accomplishments in school."

The investigator hypothesized that a train of events took place: positive experiences in school encouraged the ex-care girls to plan their lives; better planning meant a greater likelihood of harmonious marriage, which in turn meant a better chance that the young women would be good parents.

There are some important implications for mental health services from this research, said Rutter. Positive experiences that create feelings of worth, accomplishments, and efficacy were found to have a powerful ameliorating effect in spite of the negative experiences of institutional upbringing. This finding "serves to remind us that schooling constitutes a rich source of social experiences as well as an instrument for scholastic instruction."

"Schooling is an experience that influences the whole population, and offers mental health practitioners the unique opportunity of making it a beneficial experience," Rutter contended.

"Finally, our findings carry implications for personality development," he concluded. "The most severe childhood adversities do not have a once-and-for-all effect on psychosocial functioning. Experiences of success, control, or even pleasure are important, not because they dilute the impact of stressful happenings, but because such positive experiences enhance confidence to deal with the hazards and dilemmas of life."

—Judy Falkenberg, NIMH



Dr. Michael Rutter (left) lectures to NIMH staff (above right) and consults with Institute scientists, including child expert Dr. Judith Rapoport of the Intramural Research Program (below right)

## Evidence, Not Advocacy, Is The Role Of Science

In his talks with NIMH staff, Rutter also addressed the often-thorny issue of translating research findings into public policy and public information. The problem is brought home, for example, when data indicates that a particular substance causes various health problems, and the information triggers demands to enact legislation banning its use.

The case of lead poisoning is illustrative: In Great Britain over the past 2 years, a lively and at times vitriolic debate has been going on as to whether lead should be removed from gasoline.

The scientific community had been split, Rutter said. On one side, scientists thought the evidence conclusive: lead in gasoline had serious health effects and should be banned. One chemist ranked the threat to children's health from lead in gasoline as second only to an all-out nuclear war.

The other faction of the scientific community thought the evidence was inconclusive and felt that more research was needed. They advised caution in formulating public policy.

Scientists had known for some time that chronic doses of lead at certain levels affect a child's nervous system and can lead to blindness, mental retardation, learning disabilities, and seizures. Researchers also had found that lower doses of lead can adversely affect learning and intelligence. According to several well-documented studies, exposure to low levels of lead can result in a drop of between 2.5 and 5 points in children's I.Q., Rutter reported.

Questions about banning the lead in British gasoline revolved around the following issues:

- Is there a direct causal effect between low levels of lead and lowered I.Q.?
- Should a government ban lead just because the mineral brings about small differences in I.Q. scores?
- Since the effects of lead can vary from individual to individual—some feeling no ill effects and others succumbing to the side effects—should a ban be enacted because of those individuals?

Just what are the criteria for enacting wise and worthy public policy on this particular issue? asked Rutter. Avoiding or postponing such a decision is a decision itself, because the lead, in fact, remains in the gasoline, he pointed out.

Rutter contended that sound decision-making in the public domain involves weighing the consequences of each decision as rationally, as objectively, and as honestly as possible.

See RUTTER (P. 6, Col. 2)

## Are Cities a Bad Place to Raise Children?

The prevailing notion that cities are "bad" places for children to live appears weaker after a closer examination of the research literature, according to a research paper by Dr. Michael Rutter entitled *The City and the Child*.

In a comparative study of inner London and the Isle of Wight (a small island off the coast of southern England), Rutter found that residents of inner London exhibited greater rates of mental disorders, more crime and delinquency, increased rates of marital discord and family breakdown, and greater prevalence of educational problems.

But preliminary data from other studies have shown that rates of disorders in children—as measured by a teacher's questionnaire—are much lower in the Scottish city of Aberdeen and an industrial area of South Wales than in inner London, Rutter disclosed.

"Clearly, industrialization and urbanization are not enough in themselves to cause high rates of disorders," he stated. The scientist pointed out that there are pockets in the suburbs of London with high rates of crime and mental disorder, and parts of the inner city with low rates of such problems. Furthermore, there can be large differences in crime rates between streets in the same area.

"It appears that city living is associated with an increased susceptibility to a wide range of problems but with different manifestations and different causes. The strong implication is that more than one mechanism is likely to be at work," says Rutter.

For instance, rates of crime and vandalism vary according to layout, design, and size of housing. Vast areas of semipublic territory are most vulnerable to vandalism and crime. Factors that seem associated with a low crime rate include housing with a "mix" of families, grounds and buildings that are maintained properly, and an arrangement of dwellings whereby one doorway serves a small number of households, thus creating a stronger sense of community and easier supervision.

Overcrowding also has a bearing on crime, but population density (the number of people per acre) is not the telling factor, Rutter added. Both Los Angeles and Atlanta have high crime rates and relatively low population density, while Singapore has an astonishing high density and relatively low crime rate.

What does matter is the number of people per room in each housing unit. As Rutter explained it, while the evidence is somewhat contradictory on this finding, personal overcrowding in Western cultures is a predisposing factor to mental disorders and other social difficulties.

Rutter also discovered that schools make a big difference in children's behavior—with some schools protecting children against disorders and others predisposing them to problems.

Says Rutter, "The message is a basically optimistic one: the ills sometimes associated with city living are far from inevitable."

—Judy Folkenberg, NIMH

**HOMELESS** from page 1

major bus terminals.

As many as one-half the residents of Skid Row are severely mentally ill or suffer alcohol or drug addiction, Farr said.

Because the area is highly tolerant of behaviors that in other neighborhoods would be grounds for hospitalization or arrest, the newcomers stay, coping with often "brutal" conditions on the street rather than seeking help that might pose risk of reinstitutionalization.

The APA session on homelessness was

**"Farr saw the extent of ADM problems among the mentally ill homeless on Skid Row and realized the need for a permanent mental health program in the area."**

organized and chaired by Dr. Irene Shifren Levine, who coordinates ADAMHA Administrator William Mayer's initiative to gather information on the nature and extent of ADM problems among the homeless. Dr. Linda Tarr, Special Assistant to the Administrator, also participated in the symposium.

Levine reported that national statistics support Farr's impressions of the mental health status of the homeless population.

Defining a homeless person as "anyone who lacks adequate shelter, resources, and community ties," Levine attributed the growing, broad problem of homelessness to a variety of factors, including urban renewal, shortages of low-cost housing, a waning of the nuclear family, social stigmatization of people who are "different," a highly mobile society, and economic problems.

Chronically mentally ill persons are at particularly high risk for becoming homeless, Levine said, because of the characteristics of the population and the "gaps and fragmentation of our mental health service delivery system."

Among the estimated 2 million homeless people in the United States today, as many as 50 percent have severe and persistent mental disorders, an overlapping 10-15 percent seriously abuse drugs, and 40-50 percent are alcoholic, Levine said.

Tarr added that while estimates of the magnitude of ADM disorders among the homeless exist, few studies have examined the specific functional and clinical characteristics of the group.

Research is difficult to conduct because the population is highly transient. If they do come into contact with helping personnel, many are unable or unwilling to provide

information about themselves, Tarr said.

Research difficulties are further exacerbated by shortages of mental health professionals working in inner-city shelters and missions, where the mentally ill are likely to seek any type of social services, she said.

Farr, who is head of Adult Psychiatric Consultation Services for the Program Development Bureau of the Los Angeles County Department of Mental Health, said it was stresses placed by mentally ill clients on social service workers that initially involved him in Skid Row mental health programs.



**Dr. Roger Farr**

Detailed to the Los Angeles County welfare office to assist harassed and increasingly intimidated employees, Farr saw the extent of ADM problems among the mentally ill homeless on Skid Row and realized the need for a permanent mental health program in this area.

His first step was to develop programs for

social caseworkers that would provide them with an understanding of the nature of the disorders they were seeing in clients.

He also began a weekly consultation clinic that allowed welfare eligibility officers to review new cases with mental health professionals who volunteered time to the project.

In his next step, Farr began to evaluate the capabilities of privately funded and volunteer community organizations, such as the Salvation Army and Alcoholics Anonymous, to respond to the mental health needs of Skid Row transients.

Finding these agencies overwhelmed by the ADM caseload, Farr and his colleagues assisted in developing a consortium of Concerned Agencies in Metropolitan Los Angeles (CAMLA), intended to coordinate and strengthen existing public and private social support programs.

CAMLA, which now includes more than 50 member agencies, also provides a structured forum for volunteer mental health professionals to consult and assist agency workers who work with the homeless mentally ill.

Farr's Skid Row Mental Health Project has been successful. Last year, it was cited by the National Association of Counties as the "most creative and innovative" mental health program in the country, and it now is being replicated in St. Louis, he said.

In the coming year, Farr plans to conduct an epidemiological study of the chronically mentally ill population of Skid Row under a supplemental grant from the NIMH Community Support Program to the California State Health and Welfare Agency.

Susan Mouchka, California's CSP Project Director, will be co-investigator on the research.

—Paul Sirovatka, NIMH

**RUTTER** from page 5

"Consider the consequences in this situation: if lead is taken out of the gasoline, and children's health and I.Q. improves, an apparently correct decision has been made," he said. "But, even if the removal of lead does not improve health, neither does the removal impair health. In fact, lead is one of the few minerals not necessary for life.

"But leaving lead in gasoline has some deleterious health effects, and, depending on the individual or location, these effects can be serious."

Along with health consequences, Rutter noted, economic considerations cannot be ignored, and must be weighed in the same rational way.

Scientists who enter the public policy arena can be their own worst enemies, he remarked. "When a scientist speaks as a politician, he or she loses. Scientists deal with evidence; politicians deal with values." A scientist's proper job, he said, is to gather

**"The onus of science is to be as objective, honest, and rational as possible."**

evidence, rigorously test and replicate findings, and help interpret those findings.

"The onus of science is to be as objective, honest, and rational as possible," concluded Rutter.

(*Postscript:* Lead has been banned from gasoline in England, with a complete phase-out expected by 1990. The decision was based on political rather than health considerations, according to Rutter.)

—Judy Folkenberg, NIMH

**APA** from page 1

community, as well as to the overall productivity of research on mental illness and health," he cautioned.

Among "understandable" reasons for uncertainty on the part of many behavioral scientists about NIMH research support interests were a refocusing on major clinical disorders by the Institute in the late 1970s, and the more recent phaseout of social research not clearly relevant to mental illness and health, Pardes said.

Actually, a very small number of applications—42 out of 1,087 received in 1982—were deemed unsuitable for NIMH support by an internal screening committee.

**Pardes: "We welcome more applications for clinical research training for psychologists, and are exploring possible new mechanisms for supporting clinical scientists generally."**

The NIMH Director acknowledged that, while the proportion of all research grant funds going to psychologists has remained fairly constant since 1966, the proportion of psychology funds going to clinical investigators has nearly doubled in recent years, from 10 percent to 18 percent at present.

"Unfortunately, many observers in the behavioral science research community focused their attention exclusively on the bureaucratic aspects of the Institute's response to recent demands and opportunities. They failed to recognize both an impressive overall strengthening of the research support base over the past year and the extent to which NIMH remains committed to maintaining a stable and balanced research portfolio," Pardes said.

In fact, he noted, Congress provided ADAMHA with a \$10 million supplemental appropriation in 1982, of which NIMH received some \$6.5 million, and the current Administration budget calls for an approximate \$20 million increase for NIMH research.

"I think there is reason to be optimistic about support for research in general," he said.

He also reported that new opportunities in behavioral science research are likely to come to light by virtue of the recently completed Behavioral Science Cluster Group report that NIMH commissioned in 1982.

"Cluster group," Pardes explained, refers to an intensive evaluation and review of opportunities and advances in a particular research area. Prior clusters have looked at mental health services research and various facets of the neurosciences.



Dr. Max Siegel, APA President, and Dr. Herbert Pardes, NIMH Director

Photo by Dr. Art Bodin, MRI, Palo Alto

The Behavioral Science Cluster, which submitted its report to the Director in mid-August, was chaired by sociologist John Clausen, and included as senior consultants psychologists Al Bandura, Seymour Feshback, James Jackson, Gregory Kimble, Len Rosenbloom, Janet Spence, and Sheldon White.

A major benefit of the cluster group report, Pardes said, is its elaboration of research findings from the behavioral sciences that might otherwise go unnoticed and unappreciated as scientific accomplishments.

Pardes told the APA Council that NIMH staff, in collaboration with National Advisory Mental Health Council members, now are identifying specific steps to take in response to the cluster group's recommendations.

He also referred to interest among NIMH staff members in establishing a behavioral sciences research program, modeled after the neurosciences research program, that would facilitate joint research among specialized, discrete fields.

Commenting on research training, Pardes said that in 1982, 35 percent of the total 167 NIMH training grants made were awarded by the Psychology Education Branch. The grants represent about 21 percent of total research training funds awarded, and the proportion will be similar in 1983.

He added that 69 percent of the grants supported research training in basic psychological processes, while only 12 percent were in clinical areas.

"We welcome more applications for clinical research training for psychologists, and are exploring possible new mechanisms for supporting clinical scientists generally," he said.

The future of clinical training programs remains unclear, Pardes told the psychologists, but for the past several years, the profession has received about 20 percent of all funds available for training the core mental health professions.

A preliminary analysis of 1983 clinical training awards indicates that psychology did particularly well in the nondisciplinary

areas of child, geriatric, and minority mental health, receiving 28 percent of available funds in those areas.

Another NIMH high priority area is health and behavior, Pardes said. Of 28 grants made for specialized training in psychology, seven focused on this area.

"The strength, as well as the diversity, of psychology's involvement is a hopeful sign for the growth of this important field," he commented.

Anticipating questions regarding the distribution of the various mental health professions in key NIMH leadership positions, Pardes detailed recent and impending personnel changes at the Institute.

"There are instances in which we need the expertise of a specific discipline, and there are other instances in which more than one discipline might produce the necessary leader for a program. We welcome your input, but we also assume your understanding of the Institute's need to make critical personnel judgments and to insure top leadership.

"These latter considerations transcend any simplistic notions regarding numbers or disciplines as heads of particular positions.

"Clearly, psychology has its fair share of major leaders throughout the Institute, and we value them dearly," Pardes said.

In conclusion, he sought to allay the fears of those who feel that psychology is under siege at NIMH.

"Behavioral sciences are a central part of mental health programming as well as a central part of any attention to diagnosis, treatment, and prevention of mental illness.

"I know that there are those who fear 'biological reductionism,' and I can only state that we also shun it in the central office of NIMH. We are determined to maintain a balanced program in all of our efforts."

Pardes told the Council that, while disagreements among the various mental health disciplines and NIMH are inevitable, there are many more points of agreement. "At times," he said, "it seems that the amount of discussion we spend on these respective parts is inverse to their size."

## WORKSHOP CONSENSUS:

**Many Mentally Ill Need Home Health Care**

The time has come to extend delivery of home health care services to the mentally ill, said Dr. Mary Harper, Coordinator for Long-Term Care Programs for the Elderly, Center for Studies of the Mental Health of the Aging.

Speaking to 30 participants at a recent workshop on "Home Health Care for the Chronically Mentally Ill," Harper pointed out that, while the delivery of home health care has tripled for the physically disabled during the past 10 years, similar services for the homebound elderly mentally ill are practically nonexistent. She defined home health care as a coordinated and professionally supervised delivery of medical and social supports.

An estimated 80 percent of patients discharged from State mental hospitals return home, yet few home health care agencies will accept referrals of patients with psychiatric or behavioral problems, said Harper. "It is reported that services to patients who develop unmanageable behavior problems are frequently terminated and that many patients are reinstitutionalized due to the exhaustion and stress experienced by their families."

Further, the trend toward deinstitutionalization of the mentally ill has meant that many of the elderly and chronically ill patients have merely been moved from State institutions to nursing homes.

Although nursing homes typically are more suited to the needs of the physically impaired, an estimated 58 percent of nursing home residents suffer from a behavioral or mental disorder, she noted. With the delivery of home health care services, many mentally ill patients could leave nursing homes for their own homes.

While there is some disagreement as to whether home care is less expensive than institutional care, there is a general consensus that the home environment provides



*Dr. Evelyn McElroy, Univ. of Md. (left) and Marie Riedthaler, Adventists Home Health Care*

substantial mental health benefits for many patients, Harper said.

Patients may benefit from being at home, but families who do not have adequate assistance may not, said Dr. Evelyn McElroy, Professor of Psychiatric Nursing, University of Maryland.

Growing numbers of chronically mentally ill patients are between 21 and 30 years of age, and family members responsible for their care tend to be between 50 and 59, with a substantial number over age 60, McElroy reported.

Severe social and emotional burdens are being placed on these families at the time when they are experiencing decreased levels of energy and increased physical problems. In addition, said McElroy, difficult economic burdens relating to the illness are borne by many as they face retirement.

Medicare eligibility requires an aftercare plan for patients released from hospitals, but in many cases, families are not included in the discharge process, he noted. "Hospital staff think about professional community help when developing aftercare plans, but rarely consider the role of families." In a survey of 60 Baltimore area families, McElroy found that 85 percent of the patients

live with a parent and the rest with siblings or other relatives. Approximately one-half of the patients had a sudden onset of their illness; the rest experienced insidious development of symptoms.

Most patients were males and difficult to keep on a continuous treatment regimen. Fifty percent of the patients had florid symptoms and behavioral problems.

When families were asked to rate what bothered them most about the patient's illness, they cited "inability to reach his or her potential." Lack of employment, motivation, and sleeping problems were the next most bothersome conditions.

When asked how they might be helped, families cited "the need to know the current state of research" as their foremost requirement. Second, they listed the need to know about excellent treatment facilities and third, information about psychotropic drugs. They noted that doctors tend to withhold information about serious drug side-effects. Families also were concerned about the patient's educational needs and about how to motivate the patients to improve their lives.

In response to the question "What helped you most?", families listed lectures and books first, individual therapy second, friends third, and self-help groups fourth. Family therapy is not viewed as helpful, since many therapists espouse the view that the patient's illness is an outgrowth of family problems—an additional onus for families who already are burdened with guilt, said McElroy.

When asked what helped the patients most, families cited medication first. Hospital care and individual psychotherapy (not insight therapy) were listed second and third. Community care was not mentioned at all, an indication of the problems involved in getting such services, McElroy observed.

It is apparent that home health care is a major need for young chronic patients living with their families, she concluded.

—Marilyn Sargent, NIMH

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## New Grants to Study States' Systems for Serving Chronically Mentally Ill People

A new approach to Federal research support to States for the chronically mentally ill has been taken by the National Institute of Mental Health.

The Institute has announced the availability of 1-year grants for State service systems research, with \$700,000 earmarked for the purpose in FY 1983. Applications are due by April 1.

The research is intended to help Federal, State, and local officials improve their policies, planning, and program management concerning State and local services for

chronically mentally ill persons.

"Opportunities and services for chronically mentally ill persons are shaped by policy and program decisions at Federal and State levels . . . Often, critical decisions are made with limited knowledge of the costs, consequences, benefits, or other potential effects of alternative approaches," the program announcement states.

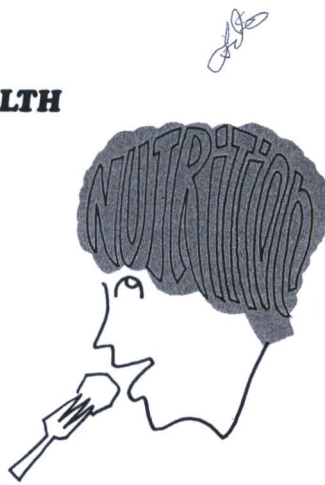
Such decisions deal with legislation, regulations, financing, fiscal incentives and disincentives, organization and staffing of service systems, eligibility for services and benefits, and other factors.

Priority will be given to multi-State collaborative projects or to State projects which can be replicated in other States.

Areas in which research will be supported are:

- Studies of the structure, operation, client outcome, and other effects of State mental health service delivery systems for the chronically mentally ill. This includes research that compares systems in different States or in different locales within States. Studies also are sought on the relation and integration of State mental health, health, and other human services for the chronically mentally ill population. Also of interest is the impact of these service systems on other components of the broader State mental health service delivery systems.

See CHRONIC (P. 6, Col. 3)



## Scientists Discuss Nutrition's Link To Mental Health

The role of nutrition in psychological health was explored at a recent NIMH workshop which focused on the potential for developing viable prevention strategies based on dietary interventions.

Scientists representing a variety of disciplines—from epidemiologists to neuroanatomists—presented their research findings in 2 days of discussions on "Nutritional and Dietary Interventions in Preventive Mental Health."

The workshop was sponsored by the NIMH Prevention Research Branch to focus on two growing areas of interest among mental health researchers and service providers:

See NUTRITION (P. 2, Col. 1)

## Drunk Driving: Holiday Accidents Down, Yearly Toll Increases

While official tallies of alcohol-related highway accidents during the 1982 holiday season are not yet available, Government transportation officials expect to find that public awareness, hotlines, road blocks, and stricter enforcement of drunk-driving laws have paid off.

Based on unofficial counts from several States, the national total of alcohol-related accidents appears to have declined by 25 to 40 percent during the Christmas-New Year period.

Clay Hall of the Department of Transportation attributes the decline in part to the voluntary efforts of private organizations and groups across the Nation. Many of these groups, he reports, will continue to offer such services as hotlines and counseling throughout the year.

Meanwhile, NIAAA's Division of Biometry and Epidemiology has analyzed newly-available data from the National Highway Traffic Safety Administration (NHTSA) which show that alcohol plays a greater role than previously thought in fatal highway crashes, especially those involving young drivers.

See ACCIDENTS (P. 4, Col. 1)



U.S. DEPARTMENT OF  
HEALTH AND HUMAN SERVICES

## TO SUBSCRIBE TO ADAMHA NEWS—

ADAMHA News will be available through paid subscription beginning with the April 26, 1983 issue.

Readers designated as "official" will continue to receive the newsletter free of charge. They include ADAMHA staff, State Alcohol, Drug Abuse, and Mental Health Authorities, and members of the agency's National Advisory Councils. Major national organizations in the ADM fields and the press also will continue to receive courtesy copies.

Other subscribers may receive ADAMHA News by returning an order form with payment to the U.S. Government Printing Office. Subscription price for 1 year, 25-biweekly issues, is \$29.00 domestic, \$36.25 foreign. Single-issue price is \$2.00 domestic and \$2.50 foreign.

Use order form on Page 3

**NUTRITION** *from page 1*

- the potential that proper nutrition and other lifestyle practices have for preventing emotional and cognitive disorders
- the usefulness of nutritional strategies in treating such disorders.

Much of the workshop's first day was spent examining the effects of maternal malnutrition on prenatal and postnatal development. Participants noted that while laboratory research with animals has demonstrated a clear link between a mother's nutrition and her offspring's brain development, these findings have yet to be applied in creating preventive strategies.

Dr. Mervyn Susser of Columbia University and Dr. G Harvey Anderson of the University of Toronto called for further study of the role of specific nutrients in the development of specific brain structures. They also pointed to a need for more scientific data on the possible reversibility of nutritional deficits during pregnancy.

Greater knowledge in these two areas would have a particular significance for the developing nations, the scientists said, and would be potentially integral to reversing America's oft-discussed "cycle of poverty."

On the second day, participants talked about links between food substances and behavior. Aware of a growing national interest in the effects of food additives, vitamins, and diets on behaviors and emotions, the researchers concentrated on separating facts from myths.

A presentation by Drs. Enoch Callaway and Iris Bell of the University of California at San Francisco sparked a discussion of the concept of "cerebral allergies," a term used to describe emotional/cognitive reactions independent of physical reactions to food substances.

The existence of such reactions has been questioned throughout the research community, and the accuracy and usefulness of the term "cerebral allergies" was the subject of a lively debate at the workshop.

***"Dietary practices represent a significant lifestyle variable."***

Participants generally agreed that, although such reactions are rare, they do exist, and they are a critical matter to people who suffer from them. Further investigations of these "allergies" are needed, the scientists concurred, and innovative research designs will be required to identify that small but significant group of individuals who very much "are what they eat."

The importance of the workshop's focus was underscored by NIMH Director Herbert Pardes in his opening remarks. He reported that in the area of nutrition and behavior, the Institute supports 35 projects totaling nearly \$2.5 million, including four projects supported through the NIMH Research Scientist Development Program.

"These projects include human studies in the areas of obesity and anorexia nervosa, as well as basic research on psychotherapeutic drugs' effects on feeding behavior," he noted. "In addition, our intramural researchers are studying the effects of caffeine and sugar on children and the effects of malnutrition on the cognitive development of the young, among other subjects."

Pardes cited a recent report of the Institute of Medicine which indicates that as much as 50 percent of U.S. mortality from the ten leading causes of death can be traced to lifestyle. "Obviously," he remarked, "dietary practices represent a significant lifestyle variable."



Later in the conference, Dr. Morton Silverman, Chief of the Prevention Research Branch, observed that lifestyle variables also encompass whether or not we smoke, how we drive, how we spend our leisure time, and even whether or not we marry or stay married.

"Direct links based on scientific and clinical data can be made between an individual's behavior and the probable quality and length of his or her life," he pointed out. "This information has been nationally disseminated using highly sophisticated public relations strategies, yet the impact on lifestyle decisions has been far below what we would expect."

"Clearly," he concluded, "a significant

## ADAMHA Administrator Aids Shooting Victim

The phrase "safeguarding the public's health" came alive for ADAMHA Administrator William Mayer, M.D., when he recently helped save the life of a shooting victim outside agency headquarters.

Mayer's early morning routine was interrupted Thursday, January 20, by the sound of gunfire from outside the Parklawn Building in Rockville. Looking down from his 12th-floor office window, he spotted a gunman in flight and a woman lying on the street who was bleeding profusely.

Mayer raced out and administered emergency first aid, including oxygen provided by the Parklawn Health Unit. The woman, a Montgomery County social worker employed in a neighboring building, sustained massive wounds on her face and arms. She initially was placed on the critical list, but her condition later was reported to have stabilized. Her estranged husband was arrested and charged with the shooting.

A PHS Commissioned Corps Officer and the Federal Government's top psychiatrist, Mayer was praised for his quick, instinctive action in a local television newscast and a *Washington Post* column.

—K.C., ADAMHA

issue for prevention researchers in the 1980s through the 1990s must be how to get people to accept and make use of what we learn."

***"A significant issue . . . must be how to get people to accept and make use of what we learn."***

A monograph of the workshop proceedings with full texts of the papers cited above will be published by the Branch at a future date.

—Myrtle Kahn, NIMH

## ADAMHA NEWS

Alcohol, Drug Abuse, and Mental Health Administration William Mayer, M.D., Administrator	National Institute on Alcohol Abuse and Alcoholism—William Mayer, M.D., Acting Director National Institute on Drug Abuse—William Pollin, M.D., Director National Institute on Mental Health—Herbert Pardes, M.D., Director
Mildred Lehman, Associate Administrator for Communications and Public Affairs	ADAMHA Office of Communications and Public Affairs

Editor, Kate Callen. Photography, Nilo Olin. Institute contracts: NIAAA—Wilbur Pinder, 443-4883; NIDA—Susan Lachter, 443-1124; NIMH—Marilyn Sargent, 443-4536; Saint Elizabeths Hospital—Don Coyle, 574-7034. Published biweekly by the Alcohol, Drug Abuse, and Mental Health Administration, Public Health Services, Department of Health and Human Services, to report on agency-related issues and events. Articles are free of copyright and may be reprinted.

### ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH ADMINISTRATION

ADAMHA News invites comments. Phone (301) 443-3783 or write to: OCPA, Room 12C-15, 5600 Fishers Lane, Rockville, Md. 20857.



## Small Businesses To Get Bigger Share of Federal Research Support

ADAMHA is inviting small businesses to apply for research and development (R&D) grants in areas selected for technological and commercial potential.

The move follows a Congressional mandate to expand the role of small businesses, especially those owned by minority and disadvantaged persons, in Federal research and development activities.

In accordance with the Small Business Innovation Development Act of 1982, Federal agencies must set aside from their R&D budgets a specified portion—to increase over a 4-year period—for the Small Business Innovative Research (SBIR) Program. The program will enable small firms to sustain projects through three phases of growth:

In Phase I, firms can receive awards for approximately 6 months to develop R&D ideas and test their feasibility. An approximate total of \$350,000 will be available for these ADAMHA awards in FY 1983.

In Phase II, ideas proposed during Phase will be developed further, especially those which show promise of attracting private capital commitments for commercial application.

Phase III will involve private sector support to finish the development of these projects and bring them into the marketplace. In some cases, Phase III will entail the use of Federal contracts (other than SBIR-funded) for products or processes intended for use by the U.S. Government.

ADAMHA currently is accepting applications for Phase I funding (receipt deadline is March 15). Only Phase I grantees will be considered for future support in Phase II.

According to a solicitation PHS released January 10, SBIR's long-range goals are to "create jobs, augment industrial productivity, increase competition, and spur economic growth."

The program is focusing on the American small business community because "small businesses traditionally have been both important sources of technological innovations and cost-effective performers of R&D."

A special SBIR aim is to "encourage participation by minority and disadvantaged persons in technological innovation."



ADAMHA is participating in the SBIR program along with five other PHS agencies: the National Institutes of Health (designated the

*"An aim is to encourage participation by minority and disadvantaged persons in technological innovation."*

lead PHS agency for this activity), the Centers for Disease Control, the Food and Drug

Administration, the National Center for Health Services Research, and the Office of Adolescent Pregnancy Programs.

In accordance with the program's directives, each ADAMHA Institute has identified the following priority research areas for SBIR funding:

### NIAAA

- Pharmacology
- Identification
- Treatment Compliance
- Prevention
- Basic Research Tools

Contact: Dr. Kenneth Warren, Room 14C-10, Parklawn Building, (301)443-2530.

### NIDA

- Assays for Cannabinoids
- Adolescent Prevention Technology
- Prevention Program Assessment Methods
- Measurement of Drug-Induced Impairment

Contact: Dr. Richard Hawks, Room 10A-19, Parklawn Building, (301) 443-5280.

### NIMH

- Analysis and Computer Needs, especially in the areas of:
  - 1) Biochemical/Clinical Research
  - 2) Mental Health Services/Clinical Care
- Instrumentation for Basic and Clinical Research, especially in the areas of:
  - 1) Mass Spectrometry
  - 2) Neurophysiology
  - 3) Physiological Monitoring
  - 4) Two-Dimensional Electrophoresis
- Brain and Body Imaging Techniques, especially in the areas of:
  - 1) Tomographic Scanners
  - 2) Nuclear Magnetic Resonance
  - 3) Analysis
- Neuromolecular Biology, especially in the areas of:
  - 1) Psychometric Instruments
  - 2) Devices to Assist in Drug Management Among Aged Patients

Contact: James Moynihan, Room 10-99, Parklawn Building, (301)443-3107.

—K.C., ADAMHA

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## Old Burma Shave Road Signs Revived by Michigan Community

*Drinking drivers  
Nothing worse  
They put  
The quart  
Before the hearse  
—BURMA SHAVE*

This jingle and others like it were a familiar sight to American motorists in the 1940s and 1950s. Posted along highways by the Burma-Vita Company, the rhyming ads for shaving cream also helped sell the idea of safe motoring.

Thirty years later, the Burma Shave "sober driving" signs have been resurrected and now appear alongside roads in Grand Rapids, Minn., as part of a local campaign against drunk driving.

The campaign is a community effort spurred by citizens' concerns about the growing problem (nearly 500 drunk drivers were arrested in the Grand Rapids area in 1980-1981). With the help of James Schaefer, Director of the University of Minnesota's Office of Alcohol and Other Drug Abuse Programming, civic groups hatched a variety of projects, including: a telephone hotline to report drunk drivers to the county sheriff's office; coupons for discount taxi service which bartenders can give to inebriated customers; and bumper stickers which read "I Love Sober Drivers."

But the revived Burma Shave ads have

generated the most interest. The signs appear in sets of six. On the sign which traditionally advertised "Burma Shave," the name of a sponsoring community group is featured.

The first set of signs (with the jingle below), installed December 9 on a major highway, was sponsored by the Charles K. Blandin Foundation of Grand Rapids. Five more sets will be placed along area roads. Four sets will display sober driving jingles from Burma Shave's archives, and the fifth will carry the winning entry in a local high school jingle contest to be judged by Leonard Odell, last president of the now-

defunct Burma-Vita Company.

The new highway signs are being offered for sale (along with smaller poster-and-desktop-sized versions) by Brann Associates of Brainerd, Minn. For further information, contact Schaefer at (612) 376-3150.

—K.C. ADAMHA



### ACCIDENTS from page 1

Division staff have found that, according to 1981 statistics from NHTSA's Fatal Accident Reporting System, 21,431 drivers aged 16-24 were at the wheel during fatal crashes. Of these, 8,222—or 42 percent—either had positive blood alcohol content tests or were judged by investigating officers to be under the influence of alcohol.

The accidents involving these young drivers were responsible for 9,310 deaths, and 4,738 of the drivers themselves were killed.



Where alcohol played a role in fatal single-vehicle accidents, young drivers accounted for 44.6 percent of the crashes, a higher toll than drivers aged 25-34 years (30.6 percent), 35-44 years (12.6 percent), 45-54 years (6.6 percent), and 55 or older (5.5 percent).

These data appeared in the lead article of the December 10 *Morbidity and Mortality Weekly Report* published by the Centers for Disease Control. The article, which was written by NIAAA's Henry Malin, Jeanne Trumble, Dr. Charles Kaelber, and Barbara Lubran, pointed out that the group identified as not under the influence of alcohol included drivers who "were untested" for blood alcohol content and therefore had "unknown alcohol involvement."

NHTSA also has found new evidence, derived from 1979 and 1980 data, that alcohol is now involved in up to 55 percent of all fatal highway crashes, an increase from a previous estimate of 50 percent.

The study's analyses of recent fatal accidents show that 60 percent of the people who died driving passenger cars, light trucks, or vans had been drinking, and 60 percent of fatally injured motorcycle riders were found to have alcohol in their systems at the time of death.

The study also showed that 40 percent of fatally injured adult pedestrians had some alcohol in their systems, and nearly 40 percent of these were legally intoxicated. In

addition, alcohol was involved in up to 25 percent of all injury-producing accidents and in approximately 8 percent of all property-damage-only accidents.

Data for the new projections on alcohol-related deaths came from 15 States which have good reporting procedures for crashes involving alcohol. These States are included in NHTSA's Fatal Accident Reporting System. Data from the National Accident Sampling System for 1979 and 1980 were the basis for the injury and property damage accident projections.

NHTSA's study also found that 60 percent of the fatally injured drivers between the ages of 24 and 34 were drunk, as were 43 percent of the fatally injured teenage drivers. Drivers aged 65 and older were drunk in only 18 percent of their crashes.

Using these statistics, NHTSA projected the following: between 24,000 and 27,500 person are killed each year in crashes involving alcohol; an additional 700,000 persons are injured each year in crashes involving alcohol; alcohol is involved in more than 2 million motor vehicle accidents each year.

A limited number of single copies of the study, entitled "Alcohol Involvement in Traffic Accidents," can be obtained by sending a self-addressed stamped envelope to the National Center for Statistics and Analysis, NHTSA, NRD-32, 400 Seventh Street, S.W., Washington, D.C. 20590.

—NIAAA Information and Feature Service

## ADAMHA To Fund New Prevention Researchers

ADAMHA has announced a new agency-wide research program aimed at expanding the number of investigators who are conducting prevention research in the alcohol, drug abuse, and mental health fields.

The program is designed to encourage newly-trained behavioral or biomedical investigators to develop their interests and skills in prevention research directed at alcohol, drug abuse, and mental health problems.

Established investigators in closely-related fields who wish to specialize in prevention research also are eligible.

Up to six "New Investigator Research Awards (NIRA) in Prevention" will be made in FY 1983 under the new program.

"The ultimate goal of this new long-range effort is to produce demonstrable reductions in the incidence of alcohol, drug abuse, and mental health disorders in our society," said ADAMHA Administrator William Meyer in announcing the NIRA program.

The agency recently defined its prevention research program as including studies "focused on, or directly related to, reducing the incidence of: ADM disorders; the high-risk precursors of the disorders; [or] the adverse consequences of high-risk precursors or early manifestations of the disorders themselves."

Within this spectrum of interests, applications for NIRA grants are sought in particular for the following kinds of projects (al-

though proposals in other areas will receive consideration):

- 1) Designing, implementing, and evaluating models for early preventive intervention with individuals or populations who are at risk of ADM disorders or who display early signs or precursors of these disorders. According to the NIRA grant program announcement, the proposed interventions should aim at reducing both the incidence of specific disorders and the demand for treatment.
- 2) Assessing the differential applicability of preventive interventions in various populations and age groups, as well as the duration of their effects.
- 3) Refining techniques for identifying vulnerable individuals within at-risk populations, and for assessing their receptivity to early preventive intervention.
- 4) Assessing relationships between stressful life events and individual vulnerability or resistance to specific ADM disorders, with the intent to apply these findings to preventive interventions.
- 5) Developing or refining prevention research and evaluation methods, i.e., instrumentation and measurement techniques, cost-benefit analyses, and community-impact analyses.

For purposes of the NIRA program, a "new investigator" is a scientist who has a doc-

toral degree or its equivalent, or who has completed formal professional and research training, but has no more than 5 years of research experience and has not previously been a principal investigator on any PHS-supported research project.

Investigators refocusing their careers on prevention research are defined as established investigators with at least 5 years experience who have not previously been principal investigators on any NIAAA, NIDA, or NIMH prevention research grant and who have had research training experience in closely-related fields.

Applications for NIRA grants may be submitted to any of the three ADAMHA institutes. A NIRA grant will be made to an institution on behalf of the applicant investigator. Total direct costs for NIRA project may not exceed \$37,500 per year, or \$112,500 for a 3-year project.

Applications must be received by April 1, 1983, to be considered for FY 1983 funding. Future due dates will be every July 1, November 1, and March 1. Awards will depend upon availability of funds.

Contacts for additional information are: Dr. Ernestine Vanderveen, NIAAA, (301) 443-4223; Dr. Robert Battjes, NIDA, (301) 443-1514; Dr. Morton Silverman, NIMH, (301) 443-4283

—James Helsing, ADAMHA

## NIDA Brings Scientists Together To Analyze Drug Abuse Trends

Heroin abuse remains high in northeast U.S. cities and may be increasing in cities such as St. Louis, Detroit, and Seattle, where heroin has not recently been considered a problem.

In addition, high quality, domestically-grown "sinsemilla" marijuana has become increasingly available in many U.S. cities.

These and other drug abuse trends, reported for the first 6 months of 1982, emerged at the NIDA-sponsored Community Epidemiology Work Group held recently at the Parklawn Building in Rockville. The work group, which has been meeting biannually since 1976, is composed of 20 researchers and epidemiologists representing 19 major U.S. cities and Canada.

According to Nicholas Kozel, NIDA Division of Epidemiology and Statistical Analysis, who plans and coordinates the meeting, the participants form a unique information network which supplements and explains data from other NIDA-sponsored information systems such as DAWN (Drug Abuse Warning Network) and CODAP (Client-Oriented Data Acquisition Process) which collect data from hospitals, medical examiners, and treatment programs.

"Through direct contact with treatment facilities, law enforcement agencies, local surveys and 'street' people, the participants become knowledgeable about drug abuse trends in their communities," says Kozel.

"Then, if we find a dramatic fluctuation in our data from more indirect sources, the network can help us understand the reasons underlying the change."

For example, DAWN has reported an increased number of deaths due to heroin. According to Kozel, data gleaned in part from the work group meetings suggest that reasons for these deaths include increased heroin purity, increased availability in several cities, and more polydrug use (use of heroin with other drugs such as alcohol).

The work group also reported that:

- Cocaine is widely available nationwide, with purity ranging from 15 to 60 percent. The main factors that influence the wide variance in purity are amount purchased, buyer sophistication, effectiveness of law enforcement efforts, and degree of dealer's cocaine dependence.
- PCP continues to be a significant problem in Los Angeles, while increases in LSD availability were noted in Minneapolis, Chicago, St. Louis, Boston, and Seattle.
- Three classes of drugs used alone or in combination with other drugs were reported as continuing problems in several cities. They are:

- 1) Pentazocine alone, and combined with other drugs such as pyribenzamine, in New Orleans, St. Louis, Minneapolis, Chicago, Detroit, and Buffalo. Pentazocine is a morphine-like analgesic drug with the trade



Nicholas Kozel

name "Talwin." It often is combined and abused with pyribenzamine, a prescription antihistamine. Together they are called "T's and Blues" on the street.

- 2) Codeine alone and combined with glutethimide ("Doriden," a drug used to treat insomnia) in Newark, Los Angeles, Boston, and San Diego. This combination is known as "Hits," "Loads," and "Fours and Doors."
- 3) Amphetamines, stimulants, and look-alikes in Dallas and Maricopa (Phoenix) county as well as in New Jersey, Pennsylvania, and California.

NIDA assesses the significance of many of these findings by comparing them to prior reports of drug abuse trends. For example, from 1976 to 1979, heroin use was down in many cities. Now, heroin use not only is at elevated levels in the Northeast, but also appears to be increasing in other regions, Kozel points out.

—Lenore Galt, NIDA

## Informed Consent of Research Subjects: Can Mental Patients Decide for Themselves?

The first of two articles on informed consent of research subjects, this one focuses on mental patients' competency to make decisions.

John Doe, a hospitalized paranoid patient, knows who he is and where he is. He appears to understand the protocols of a study that could prove beneficial to him, but will not consent to being a research subject because he believes the investigator intends to poison him. Can he be considered competent to make a decision about whether or not to participate in the study? By what standards should his competency be judged—by his awareness of facts or by the logic of his decisions? Should a legal guardian provide the consent?

The issues surrounding informed consent remain difficult and controversial for the mental health research community, says Natalie Reatig, Program Specialist, NIMH Pharmacologic and Somatic Treatments Research Branch, who has long been involved in activities relating to the protection of human research subjects.

Current HHS regulations (published in the *Federal Register*, January 26, 1981, Vol. 46, No. 16) require that informed consent be gained from potential research subjects and that such consent be based on knowledge and understanding of research procedures, purposes, risks, and benefits as well as of privacy rights and availability of compensation in case of injury.

The regulations draw special attention to certain "vulnerable" populations who may not be able to give voluntary informed consent, i.e., those suffering from severe mental or physical disability or those who may be exposed to coercion because they are institutionalized or imprisoned. For persons considered incompetent, consent is to be sought from their legally authorized representative.

The resolution of two questions, made more pressing by the regulations, is of particular concern to mental health researchers, says Reatig: namely, how do you assess the competency of mentally ill subjects? and does the consent of legal guardians, in fact, protect the subjects' best interest?

The problems of developing workable criteria for competency were addressed in two recent articles by NIMH grantees, Reatig reports. In an October 1982 *IRB* article, Drs. Barbara and Michael Stanley, Wayne State University School of Medicine, discuss five standards often proposed to assess competency in the mentally ill, noting that "patients' competency will vary depending on which test is applied."

The standard "least protective of patients and one rarely used" is based on a patient giving "evidence of choice" about participation in a study by indicating a simple "yes" or "no." This standard, report the scientists, does not assure that patients' decisions are based on their understanding of the information provided.

The most commonly applied standard requires that subjects demonstrate a "com-

prehension of facts" relevant to the proposed study by repeating or by drawing inferences or conclusions from the provided information. The difficulty with this method is its heavy reliance on verbal skills, and thus its inherent bias against less educated or low I.Q. subjects, say the Stanleys.

A third basis for judging competency is the subject's overall capacity for "rational reasoning." While offering a high degree of protection to subjects, it requires the assessor to differentiate rational from irrational reasons, and unstated or "real" reasons from false reasons.

A fourth standard involves assessing the subjects' "appreciation of the nature of their situation." The investigator must assess not only whether the subject understands the information, but also the "degree to which the patients appreciate that they are research subjects, that they have a certain condition that is being investigated, and what will happen if they decide or decline to participate." Although these concepts would seem easily understood, empirical studies indicate that such levels of comprehension are beyond most research subjects, say the Stanleys.

Yet a fifth test evaluates the "reasonableness" of a subject's decision. Incompetence would be demonstrated by a failure to make a decision that is roughly congruent with the decision that a "reasonable" person would have made. This standard is most often applied in cases of non-investigational treatment, particularly if the patient's life is at stake, but, say the Stanleys, it could be adapted for use with research subjects and has the advantage of not relying on verbal skills.

"Reasonableness" could be assessed by use of a standardized test wherein the subject could decide whether or not to participate in a series of hypothetical research protocols which would vary according to degree of potential risks and benefits. A finding that a subject has the "ability to reach reasonable decisions" would be a finding of competency. This method provides an opportunity to judge competency under circumstances less fraught with tension and allows greater freedom from conflict of interest by the investigator, according to the scientists.

Similar issues are discussed in a review of the literature by Drs. Paul Appelbaum and Loren Roth of the Western Psychiatric Institute and Clinic, Pittsburgh. In an August 1982 *Archives of General Psychiatry* article, Appelbaum and Roth call for "empirical testing of the reliability and validity of the various ways of characterizing competency . . . and a comparison of the decisions made by those who meet or fail to meet a particular standard. Only then will we be able to protect the variety of interests involved in human experimentation in a meaningful way."

A second article will examine third-party consent from patients' legal guardians.

—Marilyn Sargent, NIMH

### CHRONIC from page 1

- Studies that assess State mental health and related service delivery systems for particular subgroups of chronically mentally ill clients. They include severely disturbed children and youth, the young adult chronic patient, the homeless chronically mentally ill, and chronically mentally ill individuals in nursing homes and correction settings. This includes research that compares systems in different States or in different locales within States, and studies that assess innovative service configurations developed by States for serving these subpopulations.

- Studies that examine State service funding and cost issues pertinent to the chronically mentally ill population, including research that: compares systems in different States; investigates different funding models and benefit configurations; examines efficiency and cost-effectiveness of services;

*"Often, critical decisions are made with limited knowledge of the costs, consequences, benefits, or other potential effects of alternative approaches."*



Dr. Ronald Manderscheid

and investigates resource channeling and coordination for particular subgroups of the chronically mentally ill population.

- Studies of service management and mix in State mental health service delivery systems for the chronically mentally ill, including research that: compares systems in different States or in different locales within States; addresses the interaction between service management and continuity of care;

See CHRONIC (P. 7, Col. 1)

## Many Parents Who Mistreat Children Are Re-Enacting Their Own Childhood Abuse

"In every nursery, there are ghosts," says child psychologist Selma Fraiberg. "They are the visitors from the unremembered past of the parents. . . ."

Fraiberg and her colleagues from the University of Michigan, Edna Adelson and Vivian Shapiro, believe that these uninvited nursery ghosts from the parents' past replay a family tragedy from a tattered script.

That tattered script recalls the abuse, abandonment, and other forms of emotional starvation the parents suffered as children. "Parents, it seems, often are condemned to repeat the tragedies of their childhoods with their own babies in terrible and exacting detail," continue the researchers.

According to early childhood specialists, the all-important bonds between parent and child are established in the very first months of infancy. Failure to establish those bonds can lead to impaired cognitive and motor

those who had been neglected, failed to thrive, or were potential abuse victims.

Therapy usually was conducted in the home, using an innovative range of treatment methods devised by the researchers to focus on infant-parent interaction. The sessions were videotaped so that the therapists could examine closely and repeatedly the actions between infant and mother.

Shapiro recently showed two of the child development videotapes to an NIMH audience.

The first showed "Thomas," a healthy 3- to 4-month-old baby. Thomas's mother cooed and held her infant confidently, and he responded by looking at his mother, cooing and smiling back.

According to Shapiro, Thomas's mother had traits which made her an excellent parent. She looked and smiled at her baby, trying to interpret his signals and differentiate between his various kinds of crying. She was confident of her ability to protect him, and she demonstrated empathy and good judgment. Most important, she did not take the baby's crying or crankiness personally.

By contrast, the other videotape showed "Greg" at approximately the same age. The infant was perched stiffly on his mother's knee, his little body tense while his mother supported him tentatively. The baby made furtive gestures reaching out to his mother, but she ignored him and looked in the opposite direction.

Looking sad, the baby turned away from her. There was no communication between mother and infant, no cooing, and no confident touching.

*"The goal is to . . . jog the parents' memory, so they re-experience their childhood anxiety and suffering, and 'the ghosts depart.'"*

Greg's mother "Annie" had been referred to Shapiro by a local social agency. The staff reported that she avoided physical contact with her son and forgot to buy him milk, feeding him soft drinks instead.

Annie's family had a 3-generation history of delinquency, promiscuity, child abuse, neglect, poverty, and school failure. Her own mother deserted the family periodically. Her father had died when she was 5, and her alcoholic stepfather often dragged the young girl to the woodshed and beat her with a lath for trivial misdemeanors.

After an initial period of refusing to let therapist Shapiro into her home, Annie agreed to talk about the abuse she had suffered as a child. Eventually, she acquired enough trust in Shapiro to unleash her pent-up anger verbally.

"In the midst of anger and tears," Shapiro reports, "as Annie spoke of her own oppres-

sive past, she would approach Greg, pick him up, enclose him in her arms, and murmur comforting things to him."

As the therapy progressed, Annie grew more confident, held her baby more, fed him properly, and showed more affection.

One question had puzzled the researchers from the start: "What," they wanted to know, "determines whether the conflict-ridden past of the parent will be repeated with the child?" Obviously, they surmised, not all parents who suffer abuse as children go on to abuse their own offspring.



Vivian Shapiro

The researchers discovered that most parents had formed a pathological identification with their own abusing parent. But another defense mechanism—a form of emotional repression—also was at play.

While the parents remembered the acts of abuse in chilling detail, they did not remember their feelings associated with the event—the helplessness, the terror, the feelings of desertion.

"The parent who does not remember these feelings may find himself in an unconscious alliance and identification with the fearsome figures of the past. In this way, the parental past is inflicted upon the child," say the researchers.

"Our hypothesis is that 'access' to childhood pain becomes a powerful deterrent against repetition in parenting, while repression and isolation of painful affect provide the psychological requirements for identification with the betrayors and the aggressors."

The practical goal of psychotherapy in such cases is to jog the parents' memory so they reexperience their childhood anxiety and suffering, and "the ghosts depart, and the afflicted parents become the protectors of their children against the repetition of their own conflict-ridden past."

Annie subsequently gave birth to two more children who grew up in a home that had become quite safe and secure, the researchers report. Her marriage became stable as well—the only stable marriage in both extended families.

The researchers also note that Annie's family consults her in moments of crisis and that she dispenses wise counsel. She even has tried to persuade other family members to seek psychotherapy—but, so far, without success.

—Judy Folkenberg, NIMH

*"While parents remembered the acts of abuse in chilling detail, they did not remember their feelings associated with the event."*

ability, inhibition, lack of individuation, and poor social relationships.

In 1972, Fraiberg and others initiated the Child Development Project at the University of Michigan with partial funding from NIMH. The pioneering program developed innovative intervention services for infants at risk—

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and examines the appropriate mix of mental health, health, and other human services for various age, minority, diagnostic, and disability groups within this target population.

#### ELIGIBILITY

State mental health agencies or other appropriate units of State government are eligible to apply for these grants. Priority will be given to proposals in which States demonstrate their research capacity and/or research collaboration with university departments and research units.

Also eligible are regional interstate organizations with experience in mental health service system research and with documented, established links with State mental health agencies.

Proposals also may be made by public or private, for-profit or nonprofit organizations, such as universities and corporations, in a position to develop collaborative research projects involving single or multiple States. (Such applicants must provide documented evidence of established linkages with State mental health and human services agencies responsible for addressing the issue, and willingness of the collaborating State

See CHRONIC (P. 8, Col. 1)

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government(s) or other agencies to participate in the project.)

**APPLICATION GUIDE**

Depending on the project and participating organizations, applications should prepare a detailed research plan that:

- defines the issue and discusses its relevance to the overall goal of improving State mental health service delivery systems for chronically mentally ill individuals



Judith Turner

- reviews and documents relevant prior and ongoing research
- documents the qualifications of the applicant organization and, where appropriate, the collaborating organizations to undertake research.

**STAFF CONSULTATION**

Potential applicants are urged to seek pre-application consultation.

Inquiries regarding relevance of the proposed project to Community Support Program goals should be directed to:

Judith Turner, Chief, or Jacqueline Rosenberg, Research and Evaluation Coordinator, Community Support and Rehabilitation Branch, Division of Mental Health Service Programs, Room 11C-22, Parklawn Building, 5600 Fishers Lane, Rockville, MD, 20857, (301)443-3653 or (301)443-4113.

Inquiries regarding the technical aspects

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*"Priority will be given to multi-State collaborative projects that can be replicated in other States."*

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of proposal submission, research design, and methodology should be directed to:

Dr. Ronald Manderscheid, Acting Chief, Survey and Reports Branch, Division of Biometry and Epidemiology, Room 18C-05, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857 (301)443-3343.

For an official announcement which includes further information, write: CS&R Branch, Room 11C-22, Parklawn Building, 5600 Fishers Lane, Rockville, MD 20857.

—M.K.L. ADAMHA

**Linnoila Named Director Of NIAAA Intramural Clinical Research Program**

Dr. Markku Linnoila has been appointed Chief, Laboratory of Clinical Studies, and Clinical Director of Intramural Research, NIAAA.

He is the first director of the new NIAAA intramural clinical research program, located at NIH.

Linnoila had been a staff psychiatrist at NIMH since 1980. Previously he was Associate Professor of Psychiatry, and Head, Clinical Psychopharmacology Section, Duke University Medical Center.

He has M.D. and Ph.D. (in pharmacology) degrees, and is board certified in psychiatry. In 1980, he received a Young Investigators Award from the International Committee on Alcohol, Drugs and Driving.

Linnoila is a member of the American Psychiatric Association, the Society of Biological Psychiatry, American Society for Clinical Pharmacology and Therapeutics, American College of Neuropsychopharmacology, and the Committee on Alcohol and Drugs of the National Safety Council.

He is from Helsinki, Finland, but now is a U.S. citizen.

The new NIAAA intramural research program will focus on improving techniques for early identification and treatment of alcoholism or alcohol-related problems. It will include a clinical ward in the NIH Clinical Center, and clinical support laboratories in the adjoining Ambulatory Care Research Facility.

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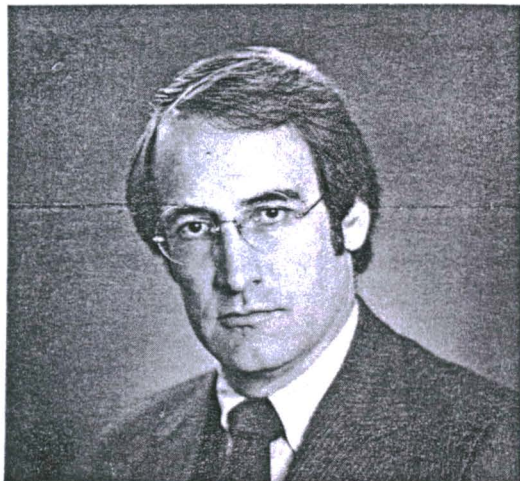
# ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH

## news

Vol. IX No. 14  
August 2, 1983

File  
Niven

## New NIAAA Director Appointed



Dr. Robert Niven

The appointment of Robert G. Niven, M.D., as Director of the National Institute on Alcohol Abuse and Alcoholism has been announced by HHS Secretary Margaret Heckler.

Niven leaves his responsibilities as director of the Mayo Clinic's widely praised Adolescent Alcohol and Drug Abuse Service in Rochester, Minn., a comprehensive treatment program for families of children with alcohol- or drug-related problems, to take up this broader challenge.

"Dr. Niven's years of experience in assessing and treating a wide variety of alcohol and

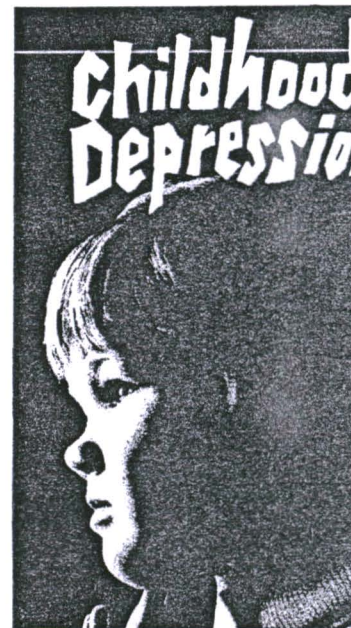
drug problems, and in training practitioners to treat alcoholism, will be of great benefit to the national program," Mrs. Heckler said. "His first-hand knowledge of adolescent drinking problems and the dynamics of family interaction in treatment and prevention adds an important dimension to our drive against the tragedy of teenage alcohol abuse."

At the Mayo Clinic, Niven also served as consultant to the clinic's alcohol and drug dependence unit, and as coordinator and teacher for the Mayo Medical School Alcohol and Drug Abuse Teaching Program.

Niven is a member of the American Psychiatric Association, the American Medical Association, and the Academy of Psychosomatic Medicine. He is president of the Association for Medical Education and Research in Substance Abuse (AMERSA). He was an NIAAA Career Teacher from 1977 to 1981, and he has chaired the Career Teacher Steering Committee.

He has served on several Minnesota State committees concerned with alcohol and drug abuse, including the Minnesota State Medical Association and Chemical Dependency Committee; the Minnesota State Medical Association Impaired Physician Committee; and the Governor's Task Force on Alcohol and Drug Abuse.

Niven was born and educated in Canada. He is a board-certified psychiatrist with previous experience as a family practitioner.



• *Major depressive disorder—a illness manifested by mood, eating sleeping disturbances, and often behaviors—is readily detectable in between 10 and 12 years of age, similar in severity and chronicity to that in adults.*

• *Dysthymia, a condition less severe than major depression but far more persistent—typically between 7 years of age—and is "a strong predictor of subsequent major depression."*

"At first I couldn't believe my findings as the study progressed, they could not be confirmed," said Dr. Marica Kovacs. In her recent report of an ongoing supported study of depressed children,

Kovacs, an Associate Professor of Psychiatry at Western Psychiatric Institute and Clinic, acknowledged that, while she previously regarded childhood depression as milder and less chronic than depression in adults, "I now see similarity in pattern.

Among findings that surprised Kovacs:

• **Major depressive episodes in children last an average of nearly 9 months.** Kovacs found only a 17-percent recovery rate at 3 months and 44 percent at 6 months after the disorder's onset, but 90 percent had recovered (2 months free of significant symptoms). The remaining 7 percent had not gotten better during the 5-year study has been in progress, she reported.

• **Major depression proved more frequent in children than expected.** Within 6 months of the first episode's remission, 17 percent of the children experienced a second full-blown depression. And 40 percent of the children have had several episodes since the study began, said Kovacs.

## Alcohol/Drug Benefit Marketable, Study Shows

A 3-year demonstration project funded by NIAAA and NIDA shows that an alcohol and drug abuse insurance benefit can be successfully marketed to employers as part of health insurance coverage for employees.

Alcohol and drug abuse treatment benefits are not new to health insurance, but coverage traditionally has been limited to hospital-based acute care. The benefit package in the demonstration broke new ground by covering residential and outpatient services, and by reimbursing care provided in freestanding clinics.

The added premium cost of the alcohol/drug abuse benefit in the demonstration was as low as 35 to 82 cents monthly for individual subscribers, and \$1.00 to \$1.70 for families.

In the demonstration—conducted cooperatively by ADAMHA and Blue Cross and Blue Shield Plans located in Philadelphia, Pa., Albany, N.Y., and the State of Alabama—44 employer groups covering 110,000 subscribers opted for the alcohol/drug benefit. The coverage competed favorably with such popular benefits as dental coverage, Blue Cross reported. This was true even in the face of today's economy and the reality that many employers are considering options to limit or reduce employee benefit costs.

Many groups that purchased the benefit did so on the basis of its potential cost-saving impact both on health care costs and costs related to productivity, i.e., absentee-