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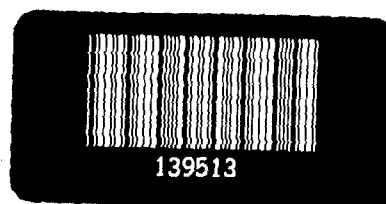
United States General Accounting Office

Report to the Honorable
Daniel K. Inouye, U.S. Senate

September 1989

MENTAL HEALTH

Prevention of Mental Disorders and Research on Stress- Related Disorders



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Human Resources Division

B-236659

September 12, 1989

The Honorable Daniel K. Inouye
United States Senate

Dear Senator Inouye:

This report is in response to your request for information concerning (1) the progress that has been made in implementing certain provisions of the Public Health Service Act that were designed to give special attention to efforts to prevent mental disability, (2) the National Institute of Mental Health's (NIMH) organization for carrying out prevention activities, and (3) the status of research on stress-related mental health disorders.

To obtain this information, we met with the NIMH Deputy Director for Prevention and Special Projects and division directors and branch chiefs who have grants, projects, or other responsibilities with respect to prevention. With them, we discussed past and current stress research and other prevention efforts. We reviewed reports prepared by NIMH; the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA); the President's Commission on Mental Health; the National Mental Health Association; and others. We also reviewed the Public Health Service Act to identify legislative mandates pertaining to the prevention of mental illness.

In addition, we reviewed the stress portion of reports on the Department of Health and Human Services' (HHS) 1990 disease prevention objectives for the nation as well as other publications pertaining to the incidence of loss-related stress—death of a spouse, divorce, loss of a job, etc.—and methods to reduce and cope with it. However, our review did not generally examine NIMH's basic research related to stress.

Our work was done in accordance with generally accepted government auditing standards and was generally performed during the period November 1986 through October 1988.

Background

The Public Health Service (PHS) has reported that mental illness, as well as milder forms of emotional distress and behavior disorders, is estimated to affect 15 to 20 percent of the nation's population, or between 37 and 48 million people. Treatment of these disorders accounts for

nearly 11 percent of the nation's health care expenditures. Mental illness also results in indirect costs in the form of lost productivity, premature death resulting from suicide or accidental injury, family discord, and spouse and child abuse. It is also perceived as contributing significantly to stress-related physical disorders, such as ulcers, heart problems, and perhaps hypertension.

Prevention has been conceptualized at three levels: (1) primary, concerned with the promotion of health and mental health and the reduction of new cases; (2) secondary, concerned with reducing the severity and recurrence of disorders; and (3) tertiary, concerned with reducing the degree of long-term disability and prevention of breakdown in the chronically mentally ill. In this report we use the term "prevention" to encompass the first two levels of prevention—primary and secondary.

In 1978 The President's Commission on Mental Health reported that (1) efforts to prevent mental illness and promote mental health were unstructured, unfocused, and uncoordinated and (2) preventive efforts received insufficient attention at the federal, state, and local levels. In short, there was no concerted effort to assess what was already known or to evaluate promising approaches for preventing mental illnesses.

The commission recommended establishing a Center for Prevention in NIMH to

- support epidemiological, biomedical, behavioral, and clinical research aimed at prevention;
- assess and evaluate existing prevention programs;
- replicate effective prevention programs, including those related to community support systems; and
- engage in other appropriate activities.

It also recommended that prevention research focus on (1) reducing the stressful effects of life crises, such as unemployment, retirement, bereavement, and marital disruption, and (2) creating environments in which people could achieve their full potential.

The President endorsed the commission's report, and in 1980, the Public Health Service Act was amended to give special attention to efforts to prevent mental disability. The amendment requires the Director of NIMH to designate a unit in the Institute to

- design national goals and establish national priorities for the prevention of mental illness and the promotion of mental health,
- encourage and assist local entities and state agencies to achieve these goals and priorities, and
- develop and coordinate federal prevention policies and programs and assure increased focus on the prevention of mental illness and the promotion of mental health.

The unit within NIMH designated to implement these mandates is the Office of the Deputy Director for Prevention and Special Projects.

In 1983 the act was further amended to require ADAMHA to designate an Associate Administrator for Prevention to promote and coordinate prevention programs, including those run by NIMH. The amendment also required an annual report to the Congress describing the prevention activities undertaken by ADAMHA and its agencies. The Associate Administrator is responsible for the report.

Progress Made in Implementing the Legislation

As of April 1989, the national prevention goals, priorities, policies, and programs required by the 1980 amendment had not been established. According to the Deputy Director, proposed national goals were forwarded to the Director's office around June 1987; however, as of April 1989, no further action to establish the goals had been taken.

In its July 1989 comments on our report, HHS stated that the prevention research area will be addressed within the next 6 months. Also, NIMH was inventorying prevention program activities within state mental health departments. The inventory will provide approaches for encouraging and assisting local entities and state agencies in prevention program activities. HHS's comments further stated that planning was underway for a national conference on prevention research, to be held in early 1990, which will directly contribute to designing national goals and establishing national priorities for prevention research.

Despite the lack of national prevention goals, NIMH divisions and branches involved with prevention activities have established priorities for their operations. For example, the Prevention Research Branch, Division of Clinical Research, has given priority to such areas as the prevention of (1) socio-emotional problems among infants and young children, (2) conduct and other behavioral disorders in school-age children, and (3) anxiety and depressive disorders. Other NIMH branches have focused

on conduct disorders and violence, disaster research, family functioning, and issues related to aging.

Deputy Director for Prevention and Special Projects

The Deputy Director for Prevention and Special Projects has been assigned the responsibility for carrying out the requirements of the 1980 amendment. The position does not appear to us to have the resources or authority necessary to accomplish the task. The office of the deputy director has four professional staff members and devotes an estimated 1 staff-year annually to efforts related to the prevention of mental illness. The Deputy Director is also responsible for NIMH's Refugee Mental Health Program and assists in the Institute's AIDS initiative.

In addition, the responsibility for NIMH's prevention programs is spread throughout the Institute. On August 12, 1985, the Acting Assistant Secretary for Health signed a reorganization plan that abolished the Division of Prevention and Special Mental Health Programs. The purpose of the reorganization was to demonstrate NIMH's commitment to higher priority programs and to facilitate the redirection of resources into these programs. The reorganization was specifically intended to stimulate the level of activity focused on the area of schizophrenia. The prevention division contained the Center for Prevention Research and four centers for research in special areas:

- Center for Studies of Antisocial and Violent Behavior.
- Center for Studies of Minority Group Mental Health.
- Center for Studies of the Mental Health of the Aging.
- Center for Studies of Emergencies.

Their functions were reassigned to three other existing or newly created research divisions and a technical support division. The division's director became the Deputy Director for Prevention and Special Projects.

The deputy director does not have line responsibility for the NIMH divisions and branches that are involved in prevention activities. According to NIMH officials, this has resulted in little overall prevention planning and coordination across NIMH. They indicated that each division has its own budget and does its own planning. Another official associated with the stress and behavior program in one branch of the Division of Basic Sciences stated that he did not really know what was going on in relation to stress in other parts of NIMH and that, in his opinion, the stress programs were fragmented. This was so even though he told us he was active in coordination efforts with the National Institutes of Health. In

addition, it is difficult for the deputy director to coordinate prevention activities across the federal government because there are no established mechanisms, such as a prevention forum, for doing so.

Associate Administrator for Prevention

The ADAMHA Associate Administrator for Prevention position was established to promote and coordinate the research programs of its component agencies—the National Institute on Alcohol Abuse and Alcoholism, the National Institute on Drug Abuse, and NIMH. The Administrator's responsibilities include (1) developing, coordinating, and supporting policies and programs pertaining to alcohol, drug abuse, and mental illness prevention and (2) establishing and maintaining organizational links among ADAMHA components and public and private organizations engaged in related programs. Also, the Associate Administrator's duties include advising the ADAMHA Administrator and assisting on long- and short-range prevention research planning and the integration of plans with the budget.

Only one person has served in this position since its creation in 1983. He was appointed in August 1985 and served until June 1987. For a period before his appointment and for 3 months after his resignation, the position was filled by an Acting Associate Administrator. In May 1989, we were told that the responsibilities of the position had been assigned to the ADAMHA Office of Substance Abuse and Prevention. Two former employees of the Associate Administrator's office are now assigned to this office, where they are assisting in the preparation of a combined 1987-88 report to the Congress on prevention activities undertaken by ADAMHA and its components.

NIMH and ADAMHA officials told us that the vacancy could be having an adverse effect on NIMH's prevention efforts. They stated that the Associate Administrator provides a channel for communicating budget needs and other information on NIMH's prevention programs to the ADAMHA Administrator, for his consideration in relation to the needs of other ADAMHA programs. They pointed out that the Office of Substance Abuse and Prevention is primarily concerned with alcohol and drug abuse and only secondarily with mental health.

Status of NIMH's Stress-Related Research

During fiscal year 1987, NIMH funded 42 grants totaling over \$9 million that were directed to learning more about loss-related stress and effective measures to prevent the development of stress-related disorders. Its stress-related activities are spread among three research divisions and one technical assistance division with no central direction.

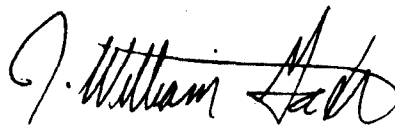
Although much is known about loss-related stress, comprehensive evaluations are generally lacking to determine the effectiveness of various preventive interventions. A detailed discussion of the status of NIMH stress research related to bereavement, separation and divorce, unemployment, the farm crisis, and disasters is included appendix I.

Agency Comments

HHS reviewed a copy of the draft report and offered several suggestions and technical comments, many of which called for the inclusion of additional information. These have been incorporated into the report to the extent that they improved the clarity, accuracy, and completeness of the information reported.

We are sending copies of this report to other interested congressional committees and members and will make copies available to others on request. Major contributors to this report are listed in appendix II.

Sincerely yours,



J. William Gadsby
Director, Intergovernmental
and Management Issues

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Abbreviations

ADAMHA	Alcohol, Drug Abuse, and Mental Health Administration
AIDS	acquired immunodeficiency syndrome
HHS	Department of Health and Human Services
NIMH	National Institute of Mental Health
PHS	Public Health Service
THEOS	They Help Each Other Spiritually

Status of NIMH Activities Pertaining to the Prevention of Stress-Related Disorders

Stress is an inevitable part of life in today's society. Some stress may be beneficial and can lead to improved productivity. But too much may contribute to depression, fatigue, obesity, coronary heart disease, or suicidal or violent behavior.

Clearly stress can have a serious impact on the nation. The Public Health Service (PHS) estimates that stress costs our society \$50 to \$75 billion annually through its contribution to absenteeism, lost productivity, and company health care expenses. In addition, it is estimated that 2,000 deaths and up to 4 million injuries are inflicted on children by abusing parents each year partially as a result of stress.

In 1978, the President's Commission on Mental Health recommended that prevention research focus on reducing the stressful effects of life crises. In 1980 PHS established the control of stress and violent behavior as a priority area for the next 10 years.

Stressful situations may be acute and unanticipated, such as the sudden death of a spouse or child, an unexpected job layoff, or an unpredicted disaster. They may also be planned events, such as marriage, surgery, or retirement. Some stressful situations are chronic and long-term, such as jobs that habitually require overtime or are dangerous, the long illness of a spouse or parent who needs care, or poverty that leaves one without essential resources.

Reactions to stress are related to the individual's basic predisposition and skill in coping with environmental pressures; past and current family influences; the nature and duration of the stressful event or environment; and the availability of family, community, and economic support. People who are most vulnerable to mental breakdown resulting from stressful situations include (1) the poor, (2) those who live alone, (3) those who have preexisting physical and mental problems, and (4) single parents.

Several types of preventive intervention have been used to prevent or reduce the effects of stress. These include (1) reducing or eliminating environmental stresses, such as noise, poor management, and insufficient unemployment relief; (2) helping individuals to prepare for stressful events; and (3) assisting individuals to cope with stress during or after a stressful event.

NIMH Research on Loss-Related Stress

Although stress can result from both positive and negative life changes, life's most significant stressful events generally relate to negative changes or events, which we refer to as losses. Loss-related stress research that is funded by the National Institute of Mental Health (NIMH) involves identifying risk groups particularly susceptible to severe reactions to losses and preventive interventions to reduce the effects of loss. Preventive interventions include preparation for loss, crisis management, counseling, the creation of mutual support groups, and the early identification and treatment of mental disorders precipitated by loss-related stress.

The responsibility for loss-related stress research is generally distributed in accord with the primary focus on the research and program interests. For example, stress in the aged is supported by the Aging Research Branch.

During 1987, NIMH supported 42 grants totaling over \$9 million that pertained to stress resulting from loss. We classified these grants as shown in table I.1.

**Table I.1: 1987 NIMH Grants in Areas
 Selected for Review**

Area	Number	Amount
Bereavement	14	\$2,767,894
Separation and divorce	7	2,295,014
Unemployment	4	1,001,416
The farm crisis	4	1,200,000
Disasters	10	1,566,616
Other	3	249,805
Total	42	\$9,080,745

NIMH's research has provided information on risk groups and resulted in the development and implementation of some preventive interventions. Information pertaining to what is known about the above areas, including prevention techniques and areas that may need further research, is discussed in the following sections.

Bereavement

A 1984 report by the Institute of Medicine estimated that 8 million Americans experience the death of an immediate family member each year. Bereavement is usually considered to have the most powerful impact of all stressful events. Loss through death, like other losses, results in negative physiologic functioning (sleep disorders, digestive

problems, heart palpitations, etc.), emotional distress, and behavioral problems. As with other stressors, the consequences of bereavement are not uniform, and many factors can modify the effects of the stress and its long-term outcome.

The Institute of Medicine's review of 10 studies revealed that widowers are particularly vulnerable for increased mortality during the first year of bereavement and widows in the second. Both sexes show higher mortality rates from suicide and an increase in alcohol and drug abuse. In addition, between 10 and 20 percent of those widowed suffer from clinical depression after 1 year.

According to the Institute of Medicine's report, there is a great deal of advice and information directed to the public and to health professionals on bereavement, and there has been an enormous growth of lay and professional programs to assist the bereaved. However, although much of the advice and many of the programs seem to rest on solid conceptual ground, very few studies have been conducted to determine whether these concepts have been translated into appropriate intervention strategies or even to test their effects. The report recommends that various intervention strategies be studied rigorously to determine their benefit to particular groups of bereaved individuals.

Two bereavement programs have been evaluated by NIMH-funded researchers. These evaluations, however, were limited in scope. One evaluation reviewed the "Widow-to-Widow" program, which is designed to assist the widowed immediately after bereavement. The program began as a demonstration research project at the Laboratory of Community Psychiatry at Harvard University that lasted from 1964 to 1974. It identified a widowed population at risk and provided one-to-one outreach after 3 to 6 weeks of bereavement and group interventions after about 6 months. The research showed that those being assisted did substantially better than persons in a control group.

The program has since been replicated many times. For instance, the American Association of Retired Persons has 135 local programs based on this model. However, the quality and effectiveness of these replicated programs have not been evaluated.

Another bereavement program evaluated by NIMH supported researchers was THEOS (They Help Each Other Spiritually), a national network whose local chapters aid widowed people in their communities by fostering social networking and friendship formation. NIMH researchers studied

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people who were members of THEOS groups and who had been widowed for an average of 43 months. In 1980, the participants reported that THEOS groups were effective in reducing distress and in increasing their life satisfaction.

The Institute of Medicine's report calls for more research on factors that place particular individuals or groups at high risk following the death of someone close. Also, the health consequences of bereavement for children are less well researched than for adults who have lost a spouse, even though it is generally agreed that bereaved children are especially vulnerable to mental breakdown and that the full impact of bereavement may not be realized until many years later.

In addition, the Institute believes that more research is needed on the anticipatory grieving period before the death of an intimate and on cross-cultural differences in grieving. The report states that most of what is known about bereavement is limited almost exclusively to studies of white, usually middle-class persons. How other socioeconomic, racial, and ethnic groups react to bereavement is generally not known.

In 1987, NIMH supported 14 grants, totaling about \$2.8 million, relating to bereavement (see table I.2).

Table I.2: 1987 NIMH Bereavement Grants

Subject	Number	Amount
Loss of spouse, particularly among elderly	6	\$1,341,037
AIDS-related bereavement	2	656,360
Bereavement in children and families	2	276,885
Physiology and psychopathology in elderly widows	2	221,253
Miscarriage	1	213,705
Support groups for the bereaved	1	58,654
Total	14	\$2,767,894

Several of these grants, such as those dealing with bereavement in children, are in areas that the Institute of Medicine indicated need more research.

In 1988, NIMH published four booklets based on information adapted from the Institute of Medicine's report on bereavement:

- One informs school personnel about helping bereaved children.

- Another informs people who either have experienced the death of a close friend or relative or want to help a grieving person.
- A third provides mental health professionals with an analytic framework for understanding psychosocial reactions to bereavement of adults and children and for selecting appropriate intervention strategies.
- A fourth gives health care professionals information on reducing distress, helping prevent pathological outcomes, and assisting the bereaved toward a satisfactory outcome.

Separation and Divorce

Next to the death of a spouse, separation and divorce are considered by "life event" researchers to be the most stressful experiences. In any given year, marital disruption directly involves the lives of 3 million adults and children.

NIMH grantees have found that individuals react very differently to the experience, depending on their personality, commitment to the marriage, and degree of outside support and resources. One preventive intervention program, funded and evaluated on a small scale by NIMH, provided a comprehensive range of needed services for newly separated persons. The program, which lasted 6 months, was designed to provide social support and build competence in socialization, child rearing and single parenting, career planning and employment, legal and financial issues, and housing and homemaking.

After 30 months, the intervention group scored significantly higher than the control group on measures of adjustment. They had significantly fewer separation-related problems and significantly greater separation-related benefits. After 4 years, the intervention group members continued to report significantly higher levels of adjustment and life quality.

Parents Without Partners is the best known self-help program for separated, divorced, widowed, and single parents. It is a nonprofit organization with a membership of more than 100,000 and chapters in almost every city in the United States. Ninety percent of its members are divorced. Although it is a large program that offers a wide range of programs and services, its effectiveness has not been formally evaluated.

In 1987, NIMH awarded seven grants, totaling about \$2.3 million, for research on family functioning (see table I.3). Most of these are to study the development of family relationships, which may or may not lead to separation or divorce.

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Table I.3: 1987 NIMH Grants Related to Separation and Divorce

Subject	Number	Amount
Study of development of family relationships	1	\$1,156,416
Study of problems in marriage, separation, and divorce	4	738,345
Prevention and treatment of stress and depression in divorce and separation	2	400,253
Total	7	\$2,295,014

Unemployment

In December 1987, 7 million Americans were unemployed. Department of Labor statistics show that many unemployed are suffering from long-term joblessness. For 1987 they show that an average of over 1 million workers were unemployed for 27 weeks or more. According to the National Mental Health Association, the effects of extended involuntary unemployment on mental health can be dramatic, resulting in increased family abuse, depression, alcohol and drug abuse, and violent behavior.

In 1982, NIMH's Division of Prevention and Special Mental Health Programs started a mental health and work initiative that included the Prevention Research Center in Michigan. NIMH curtailed this initiative in 1985, when it reorganized its research programs and abolished the division, but continued to fund work at the Michigan center.

A 1985 report on the division's unemployment work, Unemployment and Mental Health, indicated that most prior research had been concerned with the short-term effect of unemployment on workers who had lost relatively stable jobs and that relatively little research had focused on the long-term effects of job loss on any sector of the labor force. The report concluded that, although displaced workers may react in many different ways, those who are unemployed beyond a month or two are likely to experience anxiety, depression, increased substance abuse, and family conflict. In addition, research shows that after several months of unemployment, families of the unemployed may experience a variety of negative health and mental health outcomes.

The report also made a number of recommendations for future research, listing as the most important the need for applied research in intervention programs. It states that intervention and service delivery programs and prevention programs designed to help before unemployment must be evaluated for their effectiveness and for their utility across different population subgroups. Ranking second is the need for research on a broader range of victims of unemployment, such as children, families, and ethnic minorities.

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In 1987, NIMH supported four grants, totaling over \$1 million, that directly relate to unemployment (see table I.4).

Table I.4: 1987 NIMH Unemployment Grants

Subject	Number	Amount
Preventive intervention for the unemployed	1	\$299,264
Coping with the stress of unemployment	1	53,122
Ethnicity and the psychosocial impact of unemployment	1	151,042
Michigan Preventive Intervention Research Center	1	497,988
Total	4	\$1,001,416

These four grants appear to fall generally into the areas that were recommended by the final report by the Division of Prevention and Special Mental Health Programs. For example, the grant for the study of ethnicity and the psychosocial impact of unemployment examines the effects of unemployment on Mexican Americans and whites in San Antonio and the resources these groups use for coping.

The Michigan Preventive Intervention Research Center provides an academic research environment for the study of early preventive interventions relating to unemployment. The center links components of the University of Michigan research on mental health and employment to state and local mental health agencies that are developing preventive interventions. The first grant in table I.4 is being performed at this center.

The Farm Crisis

In August 1986, the Senate Committee on Appropriations reported receiving testimony that almost 50 percent of all farms in the United States would fail during the next decade, creating permanent dislocations in the structure of agriculture and rural communities. According to the report, rural residents affected by the farm crisis suffered psychological and emotional problems, and studies show that these problems will have long-term effects on families, particularly children. Also, problems stemming from the farm crisis can affect all types of rural families, not just those living on farms.¹

¹There have been improvements in the farm sector since the August 1986 testimony. Our report entitled Farm Finance: Financial Condition of American Agriculture as of December 31, 1987 (GAO/RCED-89-33BR, Oct. 18, 1988) provides further information on this topic.

In January 1987, NIMH reported that research shows that rural Americans, including farm families, are experiencing increased psychological and behavioral dysfunction. Studies conducted by the University of Minnesota Department of Psychiatry, the Colorado Department of Mental Health, and the University of Missouri Department of Sociology indicate serious and long-term mental problems in rural America. For example, researchers at the University of Minnesota reported in 1986 that of 2,200 adolescents surveyed in one rural community, 3 of every 100 had attempted suicide in the last month, a rate 15 times higher than the national average.

To address these problems, the Congress included \$1.2 million in NIMH's fiscal year 1987 appropriation to be used to fund four demonstration projects. The specific goals of these projects are to:

- Improve state and local governments' capacities to respond immediately to the psychological and behavioral problems or mental disorders experienced by rural residents affected by the farm crisis.
- Demonstrate model community approaches to address the mental health needs of rural Americans.
- Promote the development within local communities of comprehensive community mental health, health, job retraining, employment, and related services and opportunities appropriate to the needs of rural Americans experiencing emotional and behavioral problems or mental disorders.

On September 30, 1987, NIMH awarded four \$300,000 grants to the states of Nebraska, South Dakota, Minnesota, and Iowa. These grants were scheduled to expire on February 28, 1989; however, in August 1989, an NIMH official told us that start-up delays have resulted in extensions to August 31, 1989, for the completion of two grants and to September 30 and December 31, 1989, for the completion of the other two grants. He also informed us that NIMH is anticipating a request for a further extension of one of the August 31 grants.

Disasters

According to NIMH, there are usually between 20 and 40 major disasters a year, including such events as floods, hurricanes, tornadoes, and earthquakes, affecting as many as 800,000 people. Household fires displace almost 1 million additional people per year, and rape, automobile accidents, and criminal victimization affect many more.

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Many disaster victims suffer adverse psychological effects, ranging from subclinical states of anxiety and depression to posttraumatic stress disorder. Disturbances are more serious when the disaster is a chronic event and of human origin, many deaths and injuries occur, the potential for recurrence is high, and the affected population was at special risk for mental disorder before the event. The strength of the community and the social and economic supports available also influence the extent to which individuals become disturbed.

Since 1974, NIMH has worked with the Federal Emergency Management Agency in assisting states and localities to plan for emergencies and disasters. It provides for immediate counseling teams to go to the scene of disasters, trains emergency workers, and educates the public about disasters. Grant and operating funds for these activities are provided by the Federal Emergency Management Agency and are available only when disasters are declared by a Presidential executive order and when states can demonstrate that their needs exceed their resources.

In May 1983, NIMH established the Center for Mental Health Projects of Emergencies, which became the PHS focal point for research and public education on mental health emergencies resulting from environmental crises and catastrophic events. The Center also administered the agency's crisis counseling program, which provided grants to states for the provision of mental health services to disaster victims and workers. In addition, it housed the National Center for the Prevention and Control of Rape, which was the NIMH focal point for research, training, and public education activities in the area of sexual assault of children and adults.

The Center for Mental Health Studies of Emergencies was under the direction of the Division of Prevention and Special Mental Health Programs. However, when that division was abolished in 1985, the Center's activities were divided among three branches under the direction of three separate divisions. One branch, the Epidemiology and Psychopathology Research Branch of the Division of Clinical Research, established the Emergency/Disaster Research Program, which became NIMH's focal point for research projects pertaining to exposure to traumatic life crises and catastrophic events.

Also, a new Emergency Services Branch was established under the direction of the Division of Education and Service Systems Liaison. Among other things, this branch (1) coordinates NIMH's activities on mental health needs in emergency conditions; (2) analyzes and evaluates

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current research and related program developments and stimulates programs of research and training; (3) administers NIMH's crisis counseling programs in areas that are declared a disaster by the President; and (4) collaborates with other federal, state, and local and private agencies in implementing emergency service functions.

Finally, the Center's activities pertaining to sexual assault of children and adults were transferred to the Antisocial and Violent Behavior Branch, within the Division of Biometry and Applied Sciences.

NIMH has funded (1) epidemiological research into risk groups and the various effects of disasters and (2) demonstrations of preventive interventions, including planning for disasters, emergency counseling, and training and support for emergency workers. Controlled, well-defined research studies have not been performed on these demonstrated interventions. NIMH has also published information on how to deal with the shocks and losses encountered in disasters.

During fiscal year 1987, NIMH funded 10 grants totaling \$1.6 million for research pertaining to disasters (see table I.5).

Table I.5: 1987 NIMH Disaster Grants

Subject	Number	Amount
Epidemiology of disaster victims	4	\$591,616
Family and age related studies of disaster victims	3	521,989
Rehabilitation following disaster	1	240,685
Long-term follow-up of disaster victims	1	104,854
Study of victim's coping skills	1	107,472
Total	10	\$1,566,616

1990 National Stress Reduction Objectives

As a result of a 1979 PHS report, the Department of Health and Human Services (HHS) established 226 health prevention objectives to be accomplished by 1990. They included eight stress-related objectives, for which NIMH has been designated the lead agency. Within NIMH, this initiative is the responsibility of the Deputy Director for Prevention and Special Projects. The deputy director told us his role is primarily to organize conferences and encourage research and publications. He also gathers information from various sources to prepare special reports. He does not, however, have any line responsibility for carrying out research or other activities necessary to meet the objectives.

The stress objectives, which are discussed below, are in the areas of public and professional awareness (two objectives), improvement of services (three), and improvement of surveillance and evaluation (three). Overall, three objectives were met, three were "on track," and two could not be measured because of a lack of sufficient data.

HHS's November 1986 mid-course review showed that two objectives pertaining to improvement of services were met. One called for doubling the number of persons reached by mutual support or self-help groups by 1990. According to PHS, the number of persons reached by self-help groups increased from 2.5 to 5 million in 1978, depending on the definition of such groups, to 12 to 14 million in 1984. The second called for 30 percent of the 500 largest U.S. firms to offer work-based stress reduction programs. Based on a 1985 survey by HHS's Office of Disease Prevention and Health Promotion, PHS believes that over 50 percent of these companies offer such programs.

A third objective that also had been met pertained to improved surveillance and evaluation. It called for conducting surveys to show what percentage of the U.S. population perceives stress as adversely affecting health and what proportion is trying to use appropriate stress control techniques. Provisional data from a 1985 survey conducted by the National Center for Health Statistics—a PHS component—shows that 13 percent of the population felt that stress has considerable effect on their health and another 31 percent said it has some effect. A survey conducted in 1985 by Louis Harris and Associates, Inc., reported that 69 percent of the population undertook specific steps to control stress, including getting enough sleep, regularly socializing with others, participating in community groups, and exercising.

Regarding the other five stress objectives, HHS's mid-course review reported that three of them were on track and that there were insufficient data to evaluate the other two. The objectives that were reported "on track" are:

- By 1990, the proportion of the population over the age of 15 that can identify an appropriate community agency to assist in coping with a stressful situation should be greater than 50 percent.
- By 1985, a methodology should have been developed to rate the environmental stress loads of major categories of occupations. This objective was not met by 1985; however, HHS reported that it would be met before 1990.

- By 1990, the existing knowledge base about stress effects and stress management should be greatly improved through scientific inquiry.

The two objectives for which sufficient data were not available to measure progress are:

- By 1990, stress identification and control should become integral components of the continuum of health services offered by organized health programs.
- By 1990, the proportion of primary care physicians who take a careful history related to personal stress and psychological coping skills should be greater than 60 percent.

Summary

Much is known about loss-related stress, and several preventive interventions are being used to reduce its physiological and psychological effects. However, comprehensive evaluations are generally lacking to determine their effectiveness both individually and comparatively.

During fiscal year 1987, NIMH funded 42 grants totaling over \$9 million that were directed to learning more about loss-related stress and effective measures to prevent the development of stress-related disorders. Its stress activities are spread among four divisions. NIMH's Deputy Director for Prevention and Special Projects is responsible for designing and establishing goals and priorities for the prevention of mental illness and the promotion of mental health, including the prevention of stress, and for developing and coordinating federal prevention policies and programs to assure increased focus on the prevention of mental illness and promotion of mental health. The Deputy Director does not have line responsibility over the divisions and grants that are involved with stress-related disorders.

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