The 1990 Objectives for the Nation for Control of Stress and Violent Behavior: Progress Report

BARBARA J. SILVER, PhD
STEPHEN E. GOLDSTON, EdD, MSPH
LARRY B. SILVER, MD

Dr. Barbara Silver is Special Assistant in the Office of the Director, National Institute of Mental Health (NIMH); Dr. Stephen Goldston is Director of the Office of Prevention, NIMH; and Dr. Larry Silver is Acting Director, NIMH.

The figures used in this report were developed by Jack C. Smith, MS, Center for Health Promotion and Education, Centers for Disease Control.

Tearsheet requests to Dr. Barbara J. Silver, Special Assistant to the Director, NIMH, Alcohol, Drug Abuse, and Mental Health Administration, Parklawn Building, Room 17C-20, 5600 Fishers Lane, Rockville, Md. 20857.

Synopsis

The control of stress and violent behavior is 1 of the 15 priority areas addressed in the Public Health Service's Objectives for the Nation.

The National Institute of Mental Health, which provides a national focus for the Federal effort to increase knowledge of, and promote effective strategies dealing with, issues associated with mental illness and mental health, has been designated the lead Federal agency in this priority area.

The authors summarize progress achieved and further activities planned with respect to 10 objectives for control of stress and violent behavior that have been selected for Federal implementation. The objectives for control of stress include improved public and professional awareness of community agencies that can provide professional services, hotlines, and mutual support groups. The objectives for control of violent behavior address three major problems: deaths from homicide among young black males, suicide among the young, and child abuse.

Achievement of several of the objectives is currently impeded by lack of a valid data base. Efforts have been initiated, both by individual agencies and through collaboration among the various participating Public Health Service components, to develop valid and reliable baseline data and surveillance procedures.

A RECENT REPORT by the Institute of Medicine (*1*) noted keen interest and concern among leaders of the U.S. Government and the general public about the possible effects of stressful life experiences on health. Clinical observations have confirmed that for some people stressful life events can precipitate the onset of illness or exacerbate an existing ailment.

The past decade has seen a shift from emphasis on traditional biological and medical models to multifactorial or biopsychosocial approaches that consider both the biomedical and the behavioral perspectives of human life as well as coping and adaptation.

"Healthy People—The Surgeon General's Report on Health Promotion and Disease Prevention" (*2*) emphasized the need to minimize the destructive consequences of stress by preventing or reducing it and by improving the coping skills of persons under stress. A subsequent publication, "Promoting Health/Preventing Disease: Objectives for the Nation" (*3*), broadened the priority area of stress to include control of violent behavior and established 14 specific objectives for attainment by the year 1990. A third publication from the Department of Health and Human Services, "Promoting Health/Preventing Disease: Public Health Service Implementation Plans for Attaining the Objectives for the Nation" (*4*), further defined the area, selected 10 specific objectives for Federal implementation, and delineated more than 60 implementation steps to be pursued by Federal agencies during fiscal years 1982 and 1983.

Dimensions of the Task

Increasingly, evidence from research is demonstrating that stress is a key factor in physical and emotional disorders. In a review and assessment of the research literature on stress and its relation to health (*1*), a select committee of the Institute of Medicine reported that such stressful life events as job loss, bereavement, and marital disruption have been associated with increased risk of minor infections, sudden cardiac death, cancer, and depression. Furthermore, the report indicated that the stress response is a complex and interactive process. The committee recommended that research on the influence of stress on health take into account the interactions among

stressors, reactions (biological and psychosocial responses of the individual person), mediators (filters and modifiers that define the context of the stressful event), and consequences (positive or negative physical or psychosocial results of the reactions).

One goal of effective prevention programs is to obviate the adverse consequences that can occur from exposure to stressors. The manner in which the individual person perceives and reacts to a stressor can be modified through preventive interactions. Evidence from research indicates that persons with good self-esteem, effective social coping skills, and strong support systems are more resistant to stress than persons without these strengths. Thus, intervention programs that address the reactions and mediators, even in the absence of knowledge of the specific etiology of the stressor, can be effective in reducing the negative consequences of stress.

One area of stress for many people is fear of becoming a victim of violent behavior. Each year, hundreds of thousands of Americans are affected by violence—either directly, as victims, or indirectly, as family members or friends of victims. These violent acts may result in temporary, or even permanent, damage to physical and mental health—and, in extreme cases, in premature death.

Incidents of family violence, including spouse and child abuse, although underreported, are increasing. It is conservatively estimated by the National Center on Child Abuse and Neglect that 1.3 million children in the United States are harmed by abusive and neglectful parents each year.

Tackling the Task: Federal Responsibilities

Lead responsibility for meeting the Objectives for the Nation for control of stress and violent behavior was assigned by the Assistant Secretary for Health to the Alcohol, Drug Abuse, and Mental Health Administration, which delegated specific responsibility to one of its component Institutes, the National Institute of Mental Health (NIMH).

Other agencies within the Department of Health and Human Services with responsibility for activities to achieve the objectives are the Centers for Disease Control; the Office of Human Development Services, including the National Center on Child Abuse and Neglect, the Administration on Children, Youth, and Families, and the Administration on Aging; and the Office of the Assistant Secretary for Health, including the National Center for Health Statistics and the Office of Disease Prevention and Health Promotion. To promote control of stress and violence, the NIMH and these agencies carry out collaborative activities, disseminate information on research, provide technical assistance, and mobilize community resources in cooperation with the private sector.

'Incidents of family violence, including spouse and child abuse, although underreported, are increasing. It is conservatively estimated by the National Center on Child Abuse and Neglect that 1.3 million children in the United States are harmed by abusive and neglectful parents each year.'

Progress Toward the Objectives

The Objectives for the Nation for control of stress and violent behavior provide a general direction and guide for the development of new Federal programs in this area. In addition, they provide support for programs that were developed prior to delineation of the objectives. The implementation steps developed by NIMH and the cooperating Federal agencies are directed at improving the health status of the population, reducing risk factors, increasing awareness of the physical and mental health hazards of stress and violence, and improving the means of surveillance and protection (*4*). A discussion of specific objectives follows.

Objectives for control of stress. These objectives focus on public recognition of stress and stress management. Accurate baseline data for some of the stress objectives are currently unavailable; therefore, an initial step for several objectives will be, where feasible, to develop methods for obtaining accurate data.

1. By 1990, the proportion of the population over the age of 15 which can identify an appropriate community agency to assist in coping with a stressful situation should be greater than 50 percent.

2. By 1990, the proportion of young people ages 15 to 24 who can identify an accessible suicide prevention "hotline" should be greater than 60 percent.

These objectives primarily involve increasing the public's awareness of community resources, their readiness to use these resources, and their ability to identify the type of assistance—professional or nonprofessional or both—that is needed.

The issue of whether or not suicide hotlines and crisis or prevention centers prevent suicide is controversial; the limited research that does exist is methodologically flawed (*5–10*). But the lack of evidence does not mean

'Homicide is the leading cause of death in the United States for black males 15 to 24 years old. Moreover, the death rate from homicide for black males, between 1970 and 1978, was 5 to 10 times greater than that for white males . . . '

that hotlines and centers are not effective. Prevention of suicide may not be demonstrable by traditional public health procedures because of the low absolute number of suicides: there is no way to evaluate what the outcome would be if there were no center. Also, research (*6*) suggests that the effectiveness of crisis centers may depend on the level of lethality of suicidal motivation. Clients who are in acute stress may be helped, but not necessarily those who are chronically depressed or have drug abuse or alcohol abuse problems.

Additional research needs to be conducted to evaluate the effectiveness of hotlines and crisis centers. NIMH and Centers for Disease Control (CDC) staff have been discussing the possibility of interagency collaboration on evaluation of these programs.

To inform the general public about mental health and stress-related problems, and about where to get help for such problems, NIMH has been cooperating with State and local agencies in development and sponsorship of public information campaigns. Also, more than 500,000 copies of the flyer "Plain Talk About Handling Stress" (*11*) have been distributed by NIMH on request, by the General Service Administration's Consumer Information Center and by secondary distributors.

NIMH has provided technical assistance to the departments of mental health in several States to improve mental health service systems for children and adolescents, including strategies for outreach. In addition, during fiscal year 1983, the Institute collaborated with the State Mental Health Representatives for Children and Youth Committee of the National Association of State Mental Health Program Directors, which focuses on the needs of severely disturbed children and youth.

NIMH has increased its efforts to help States and localities design and implement programs to inform the public about community agencies providing stress-related services. To achieve this objective, the following activities have been undertaken:

- A handbook on mental health consultation and education for use by mental health service providers, researchers, and trainers is in preparation.
- An instrument has been developed to survey prevention and health promotion programs in community mental health facilities and to identify meritorious programs that provide stress-related services.
- A knowledge-transfer workshop on primary prevention research relevant to State mental health programs was held in Atlanta, February 25–26, 1983, specifically for State commissioners of mental health. One focus of the workshop was the research base for the development of stress-related services and preventive interventions.

NIMH has been cooperating with the National Mental Health Association (NMHA) and patient advocacy organizations in the development of programs designed to fight the stigma associated with mental illness, minimize barriers to receiving care, and expand community-based services. Plans for a nationwide campaign to provide information for the public and education for health professionals are in progress. In addition, a 2-day consultation of the Prevention Committee of the NMHA, NIMH staff, and prevention specialists was convened in Washington, D.C., in February 1983 to explore opportunities for mental health promotion efforts.

Baseline data on these objectives are anticipated in fiscal year 1984. The Office of Disease Prevention and Health Promotion, in collaboration with NIMH, CDC, the National Center for Health Statistics, and the National Institutes of Health, has supported the development of a national survey on stress that includes questions relating to the public's identification and use of community agencies and hotlines. The results of this survey should be available in fall 1984.

3. By 1990, the proportion of the primary care physicians who take a careful history related to personal stress and psychological coping skills should be greater than 60 percent.

No national data are available on this aspect of the practice activities of physicians; however, a survey of primary care physicians in Massachusetts (*12*) indicated that less than 50 percent of the respondents asked their patients about stress, only 29 percent felt "very prepared" to discuss stress, and nearly 50 percent wanted courses related to stress.

NIMH has expanded its focus for this objective to include improvement of the ability of primary care physicians to detect vulnerability to illness, including acute and chronic stress, and to make appropriate diagnoses for patients manifesting mental disorders. The Institute has published and distributed the document "Mental Disorder and Primary Medical Care: An Analytic Review of the Literature" (*13*) to increase primary care physicians' awareness of the problems involved in diagnosing and treating patients with mental disorders. The Institute has also contacted medical schools and residency programs to encourage development of model curriculums that will teach physicians how to deal with stress-related problems

experienced by their patients. Discussions with training program directors have emphasized the importance of ensuring that trainees at all levels are able to recognize stress and recommend stress management interventions. Departments of psychiatry have been encouraged to expand medical school curriculums to teach stress recognition and management skills to medical students.

NIMH has also supported research to determine how nonpsychiatric physicians diagnose, treat, and refer patients with emotional disorders. One study, "Comparison of Psychiatric Screening Questionnaires for Primary Care Patients," was designed to examine difficulties in detecting and diagnosing emotional problems and mental disorders in patients treated in a primary care setting. A second study, "Secondary Prevention with Adult Patients in Primary Care Settings," aims to determine whether providing results to primary care physicians of a self-report instrument completed by patients will improve the physicians' ability to detect, diagnose, and manage both nonspecific conditions and specific mental disorders.

4. By 1990, to reduce the gap in mental health services, the number of persons reached by mutual support or self-help groups should double from 1978 baseline figures.

This area is another in which baseline data are now unavailable; however, NIMH is supporting several research projects in connection with this objective. One group of studies deals with the mediating effect of social support on the relationship between life events and illness. One grantee is examining specific variables in the various causal models that have been proposed as important for social support and illness. Another is looking at the relationship between stress and the use of mutual support programs for the chronically mentally ill.

Several studies are examining the responses of the elderly to, and their use of, social support networks. One set of studies examines the generic issues in social support—for example, support provided by families. Of particular interest is the effect of the elderly serving the elderly (parents in their 80s and children in their 60s), since most networks are family based. Where family is not available (an estimated 30–40 percent of the elderly, mostly women, live alone), geographic networks often develop, often in age-restricted communities and old neighborhoods.

A second set of studies focuses on the social support network for older persons with Alzheimer's disease. These studies have identified the tremendous stress and burden of care families affected by Alzheimer's disease encounter in their efforts to support older patients in the community and prevent their inappropriate hospitalization.

Other studies are investigating the characteristics of social disintegration among the elderly caused by such

'In 1978, the suicide rate for 15- to 24-year-olds was 12.4 per 100,000, and suicide was the third leading cause of death for persons in this age group.'

events as change and loss of social support. Specific areas of stress include hospitalization, immigration, isolation, divorce, long-term reactions to stress of the Holocaust, long-term reactions to stress of wartime relocation, the process of dying, and bereavement. Most of this research examines the origin of the stressful event, its effect on mental and physical health, and the processes of adjustment for persons affected.

A longitudinal study is being conducted on the effects of stressful life events on the mental health of the elderly, including social relationships. Three sites in the NIMH Epidemiological Catchment Area Program have received special funding to supplement their community samples with additional elderly residents in order to obtain information on the mental health of the elderly.

NIMH has been working with States and localities to stimulate formation of self-help groups and to publicize their availability. In addition, preplanning consultation, technical assistance, and support have been provided to various self-help coalitions and clearinghouses and to voluntary and professional mental health organizations.

Because of the need to increase knowledge about the efficacy of mutual support groups, NIMH convened a research planning workshop in Washington, D.C., in September 1982 to assess the state of knowledge about mental health and self-help groups. Researchers, self-help clearinghouse directors, and representatives of mutual support groups met with NIMH staff to discuss the state-of-the-art in self-help, identify exemplary practices, and explore the appropriate role of Government in the self-help movement.

5. By 1985, surveys should show what percentage of the U.S. population perceives stress as adversely affecting their health, and what proportion of these are trying to use appropriate stress control techniques.

Experts from NIMH, CDC, the National Institutes of Health, the Office of Disease Prevention and Health Promotion, and the National Center for Health Statistics have participated in an ad hoc panel to develop a national sample telephone interview survey instrument to study the antecedents, mediators, and health consequences of stress. The interview survey was conducted during January and February 1984. The instrument includes items to

'Efforts are underway to develop valid and reliable baseline data and surveillance procedures. Modifications of the objectives will then be made that will both strengthen them and reflect current scientific knowledge.'

create baseline data both for this objective and for the objectives relating to telephone hotlines and self-help groups. In addition, NIMH has provided a set of items, based on the survey instrument, for inclusion in the prevention supplement of the 1985 National Health Interview Survey, which will be conducted by the National Center for Health Statistics.

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

NIMH has expanded its focus for this objective to include research designed to increase understanding of the relationship between stress and health. The Institute is funding basic, clinical, and applied research in the health and behavior areas, focusing on psychophysiological, biochemical, behavioral, and pharmacological effects related to stress. The research effort also includes studies that examine the way in which stressful situations affect neurophysiological processes and the way these processes mediate resultant behavioral responses, as well as research to identify the central nervous system mechanisms by which severe stress produces general changes in the behavioral state of animals.

Various individual research projects supported by NIMH deal with the processes of stress induction, personality and emotional factors involved in vulnerability and resistance to stress, and basic mechanisms and skills involved in coping with stress-generating situations. In addition, NIMH has issued a Request for Applications inviting research grant proposals on adolescent stress and coping. The Institute also is developing a program of research on health behaviors and attitudes that will address the prevention, or satisfactory resolution, of psychosocial and psychobiological stresses.

Research to increase basic understanding of the neural underpinnings of behavior is another area funded by NIMH. Specifically, several basic research projects are examining psychophysiological, biochemical, neurochemical, and pharmacological aspects of responses to stress in both animal and human subjects. Some of these studies deal directly with stress responses, while others focus on more general processes relevant to understanding both stress responses and the basic mechanisms of stress.

NIMH has also disseminated information about cost-effective, clinically competent service delivery programs to reduce stress and has provided technical assistance on design and implementation of such programs.

Objectives for Control of Violent Behavior. The 1990 objectives for control of violent behavior address three major problems: deaths from homicide among young black males, suicide among youth, and child abuse. The primary activities of the public health agencies in tackling these objectives relate to incidence surveillance and the development of research-based information for dissemination to other agencies, public and private, that can have a more direct impact on achieving the objectives.

7. By 1990, the death rate from homicide among black males ages 15 to 24 should be reduced to below 60 per 100,000.

In 1978 the death rate from homicide for this group was 72.5 per 100,000. Moreover, the only group whose death rate increased between 1961 and 1979 was the 15- to 24-year age group (*14*).

To learn more about the various factors related to homicide, it was necessary to develop an accurate and detailed data base. To accomplish this, NIMH (The Center for the Study of Antisocial and Violent Behavior) and the Centers for Disease Control signed a memorandum of agreement in fiscal year 1982 under which CDC initiated efforts to develop baseline data on homicide among black males ages 15 to 24. The 1970–78 mortality files of the National Center for Health Statistics and the 1976–79 Supplementary Homicide Report Files of the Federal Bureau of Investigation were used for this purpose. Population estimates developed by the U.S. Bureau of the Census for the intercensal years 1971–78 were also employed.

On the basis of these data sets, CDC produced data tabulations for each of the following variables as related to homicide among black males ages 15 to 24:

- geographic region of the United States,
- State,
- Standard Metropolitan Statistical Area (SMSA) and nonSMSA nationally,
- SMSA and nonSMSA within each State, and
- weapon used.

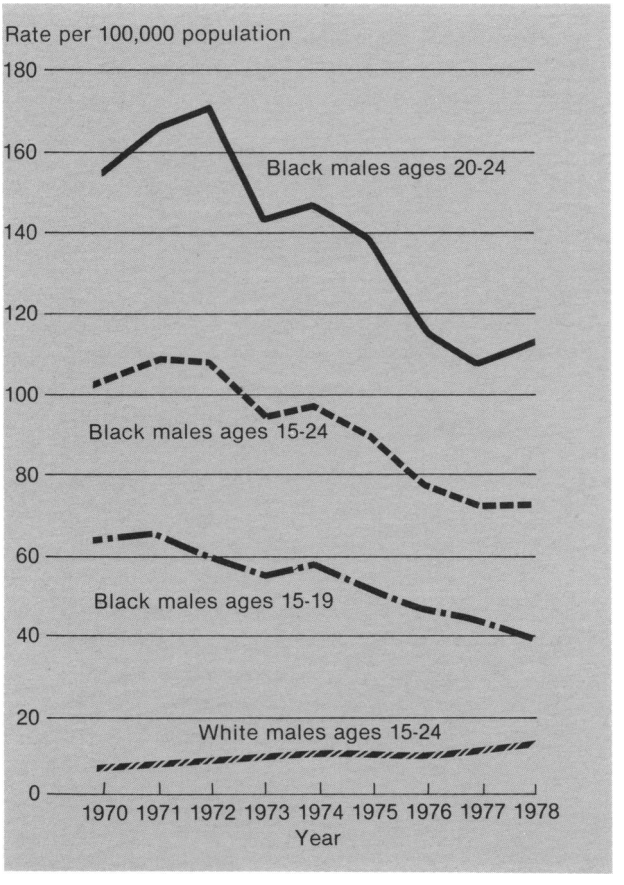
In addition, data have been tabulated from the FBI files on the relationship of homicide victims to their slayers and on whether the homicide occurred during the com-

mission of a felony. Data tabulations have been compiled, and a brief descriptive summary appeared in the CDC's Morbidity and Mortality Weekly Report (*15*).

Homicide is the leading cause of death in the United States for black males 15 to 24 years old. Moreover, the death rate from homicide for black males, between 1970 and 1978, was 5 to 10 times greater than that for white males, although there is a clear trend toward a decrease in this number (fig. 1). Within the 15- to 24-year age group among black males, the death rate from homicide for 20- to 24-year-olds is more than twice that for 15- to 19-year-olds. Also, in the Northeastern States the death rate from homicide for black 15- to 24-year-olds is more than 40 percent greater than the rates for the same group in the North Central, Southern, or Western States.

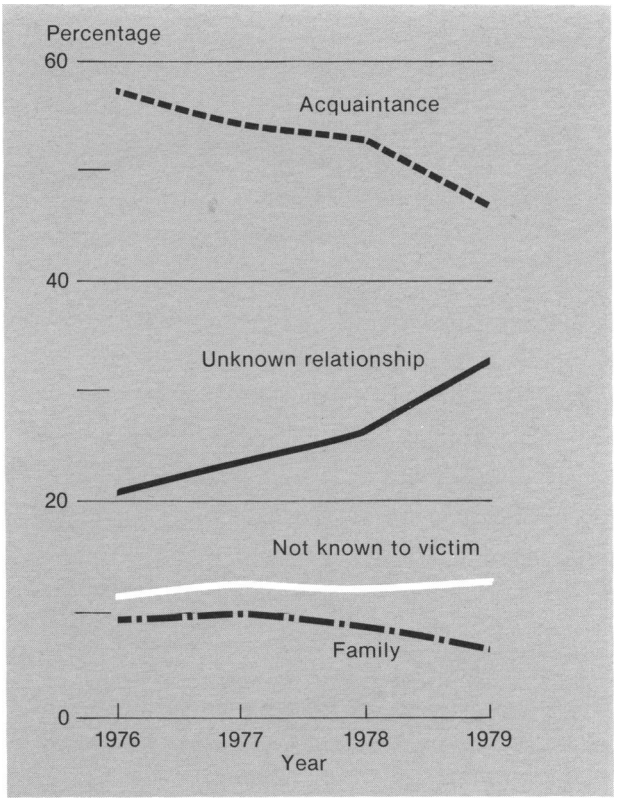
Most black male homicide victims in the 15- to 24-year age group were killed by persons known to them, although not necessarily family members; in 1979, 47.3 percent were killed by acquaintances, 7.1 percent by family members, and 12.9 percent by strangers (fig. 2). Additionally, most deaths of black males from homicide did not occur during the commission of a documented

Figure 1. Homicide rates for black males 15 – 24 years of age, by age group, United States, 1970 – 78



SOURCE: Unpublished data from the National Center for Health Statistics.

Figure 2. Percentage of homicides for black males 15 – 24 years of age, by relationship of offender to victim, United States, 1976 – 79



SOURCE: Federal Bureau of Investigation Supplementary Homicide Report Data Files.

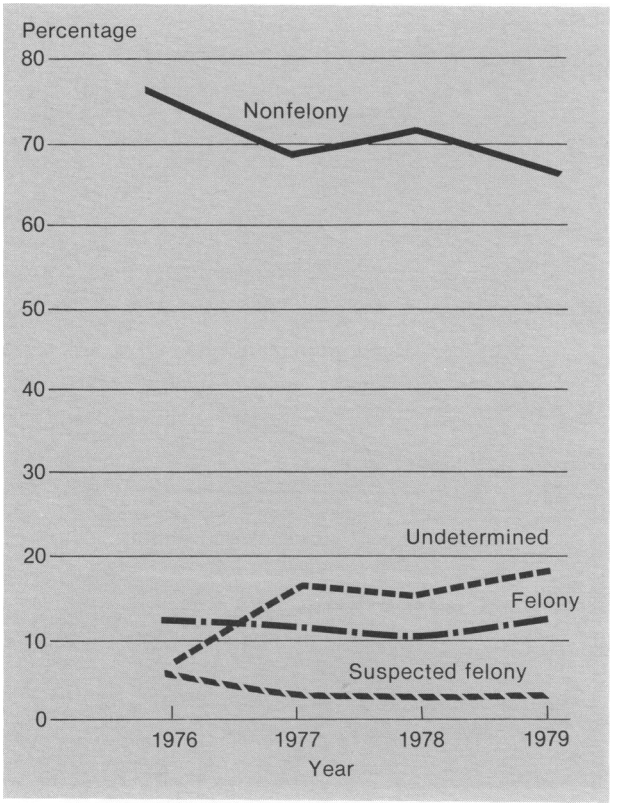
crime (fig. 3). Handguns were the most frequent murder weapon (used in 55.6 to 59.6 percent of homicides between 1970 and 1979).

On the basis of these data, NIMH and CDC plan to revise their surveillance activities to focus more closely on 20- to 24-year-old black males and to include data on other minority males. In addition, plans are being developed to study deaths from homicide among Hispanics in the American Southwest.

These data suggest a number of areas for research, including the following:

- the psychological factors that differentiate 15- to 19-year-olds from 20- to 24-year-olds, given their relatively similar age and social or community conditions;
- the social or community conditions that interact with psychosocial factors to result in adolescent antisocial and violent behavior;
- the identification of early predictors of later violent behavior;
- the relationship between homicide incidence rates and geographic location in the United States;
- the characteristics of victims—for example, lifestyle and risk taking;

Figure 3. Percentage of homicides for black males 15 - 24 years of age, by crime circumstance, United States, 1976 - 79



SOURCE: Federal Bureau of Investigation Supplementary Homicide Report Data Files.

- control of anger and conflict resolution; and
- the influence of violent peers and violent role models.

In addition, CDC, through its Violence Epidemiology Branch, has initiated efforts to assess the risk factors involved in homicide and other forms of violence to persons.

8. By 1990, the rate of suicide among people 15 to 24 should be below 11 per 100,000.

In 1978, the suicide rate for 15- to 24-year-olds was 12.4 per 100,000, and suicide was the third leading cause of death for persons in this age group. Moreover, the suicide rate for this group has increased threefold in the last 25 years, almost entirely because of an increase in the rate of suicides by males (*15*). Research data also indicate that suicide is the second leading cause of death among college students (*16*).

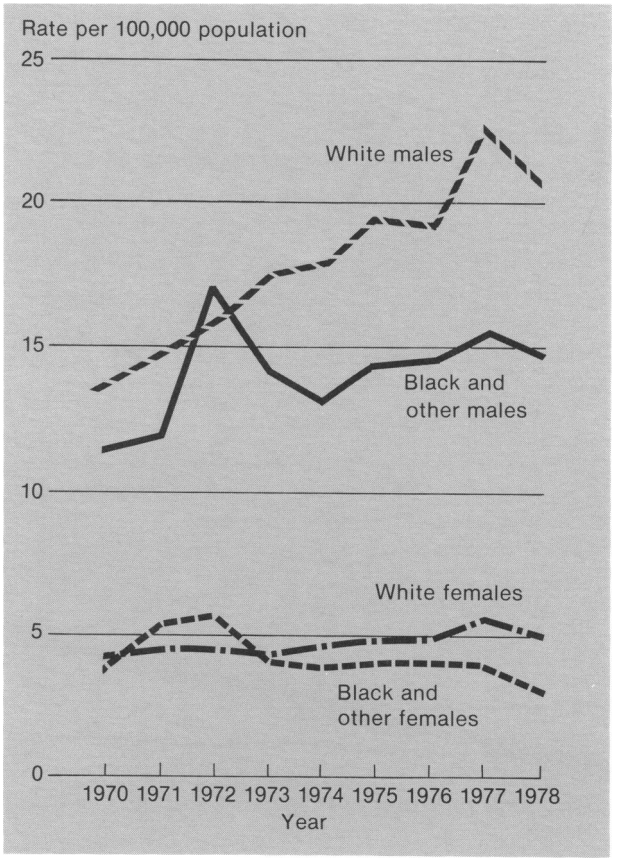
To investigate trends in and characteristics of suicide among 15- to 24-year-olds, NIMH and CDC entered into a joint agreement under which CDC was to develop baseline data for suicides similar to the baseline data for homicides. Suicide statistics for 1970–79 were extracted from national mortality data files compiled by the National Center for Health Statistics.

In 1978, the ratio of male to female suicides among 15- to 24-year-olds was greater than 4 to 1. Most suicide victims in that age group were white males (88.8 percent in 1978), and the 15- to 24-year age group was the only group to show a clear upward trend in suicide rates from 1970 to 1978 (fig. 4).

Within the 15- to 24-year age group, the suicide rate for 20- to 24-year-olds was almost twice the rate for 15- to 19-year-olds and was consistently higher than the rate for persons of all ages (fig. 5). Also, the suicide rate for 15- to 24-year-olds in the Western States was higher than suicide rates for the same age group in the Northeastern, North Central, and Southern States.

Methods for committing suicide changed dramatically between 1970 and 1978, particularly for females (fig. 6). In 1970, more than 50 percent of all suicides by males were committed with firearms and explosives (no other method reached 20 percent), and the proportion has been increasing yearly. For females, the leading method of suicide in 1970 (42.4 percent of suicides) was poison (liquid and solid substances); however, in 1978 the lead-

Figure 4. Suicide rates for all persons 15 - 24 years of age, by race and sex, United States, 1970 - 78



SOURCE: National Center for Health Statistics Annual Mortality Data Files; U.S. Bureau of the Census Population Estimates Data File.

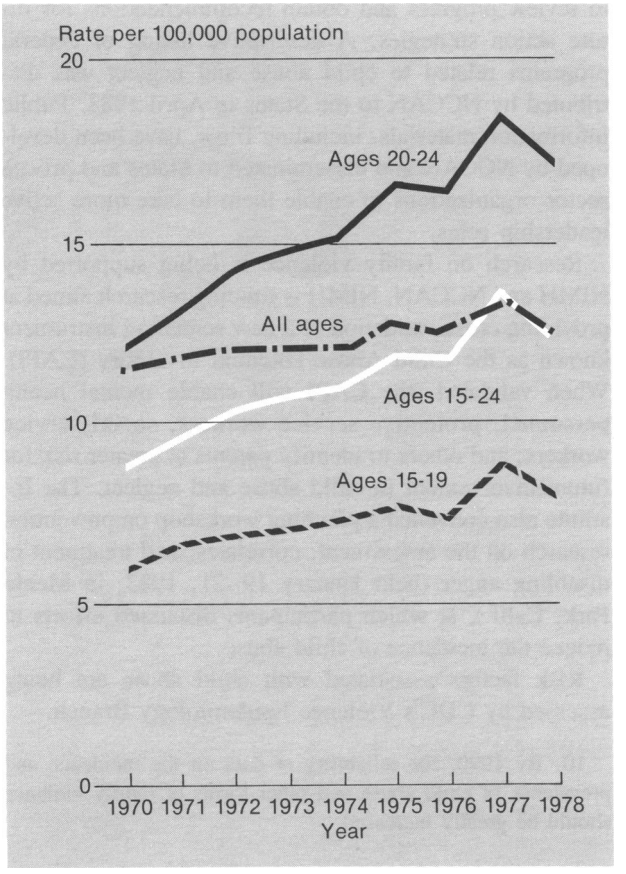
ing method of suicide was firearms and explosives (49.5 percent of suicides), and use of poison (liquid and solid) had markedly decreased (24.1 percent).

On the basis of these data, NIMH and CDC plan to revise their surveillance activities to focus on the 20- to 24-year age group as well as 15- to 24-year-olds. Plans are also being developed to examine the suicide rate for Hispanic youth in the American Southwest.

Other research indicates that suicide is more frequent among alcoholics, drug abusers, violent persons, and those who suffer from depression or other psychiatric disorders than among the general population (*17–19*). These data and current research suggest a number of areas for new or continuing work:

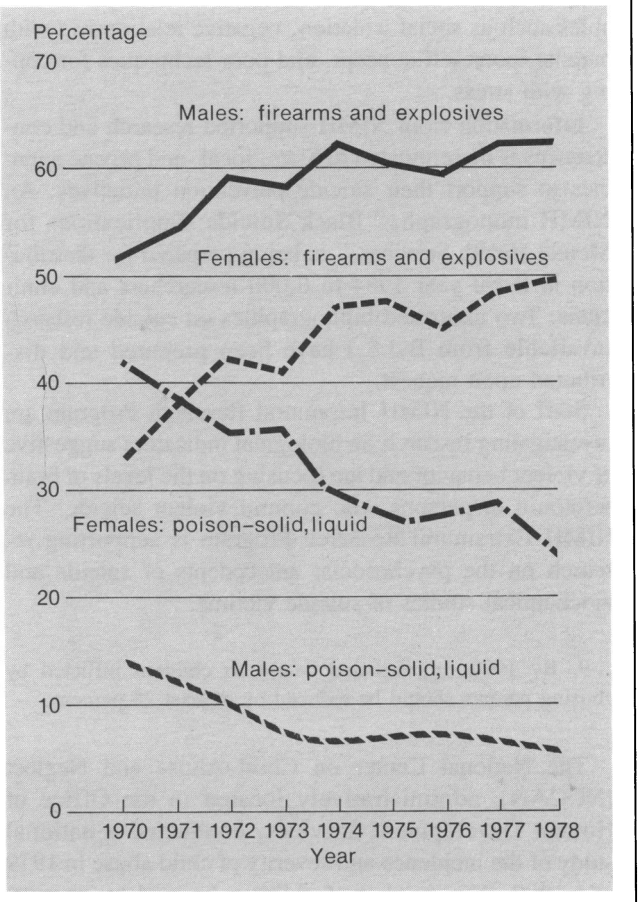
- studies of the psychosocial factors that differentiate white males from all other subgroups;
- field research on variables such as socioeconomic status, previous military service, previous suicide attempts, drug and alcohol use, and medical interventions;
- studies of the relationship between suicide incidence rates and geographic location; and

Figure 5. Suicide rates for persons 15-24 years of age and for all ages, United States, 1970-78



SOURCE: National Center for Health Statistics Annual Mortality Data Files; U.S. Bureau of the Census Population Estimates Data File.

Figure 6. Percentage of suicides by firearms and poisonings for males and females 15-24 years of age, United States, 1970-78[1]



1 The sum of all other methods of suicide was approximately 25-30 percent and generally constant over the time period.
SOURCE: National Center for Health Statistics Annual Mortality Data Files.

- issues of reporting, such as accidental death or suicide versus intentional suicide, and single fatalities in motor vehicle accidents.

The Violence Epidemiology Branch of CDC has also supported efforts to assess risk factors associated with suicide. Two research projects related to risk factors have been completed: a study of seasonal variations in suicide and a study of Hispanic suicides in five States in the Southwest during the period 1975–80.

In fiscal year 1983, NIMH established a Suicide Research Unit to develop a knowledge base on the current status of research information and to support research related to suicide. NIMH's focus on suicide includes reducing the suicide rate in high-risk populations through improved diagnosis and treatment of serious depressive and psychotic disorders.

In December 1982, the Institute supported a research planning workshop, Prevention Research on Suicide and Affective Disorders among Adolescents and Young

Adults. Conference participants discussed the relationship between depression and suicide among young people and recommended continued research on variables such as social isolation, negative relationship with parents, poor self-concept, and poor techniques for coping with stress.

Information from NIMH-supported research and conferences is disseminated to State, local, and private agencies to support their suicide prevention initiatives. An NIMH monograph, "Black Suicide: Implications for Mental Health Services," is being prepared for distribution in fiscal year 1984 to 6,000 researchers and clinicians. Two annotated bibliographies on suicide research (available from B.J.S.) have been prepared and distributed upon request.

Staff of the NIMH Intramural Research Program are investigating research on biological indicators suggestive of violent behavior and are focusing on the levels of brain serotonin in persons who commit violent suicide. The NIMH Extramural Research Program is supporting research on the psychosocial antecedents of suicide and biochemical studies of suicide victims.

9. By 1990, injuries and deaths to children inflicted by abusing parents should be reduced by at least 25 percent.

The National Center on Child Abuse and Neglect (NCCAN), administratively located in the Office of Human Development Services, conducted a national study of the incidence and severity of child abuse in 1979 and 1980. The number of children harmed by parents' abusive or neglectful treatment was estimated conservatively by NCCAN at 1.3 million per year. This figure parallels in some ways the annual studies of the reporting of child abuse and neglect conducted by NCCAN in cooperation with the American Humane Association. Yet the data make it clear that although reporting has increased by more than 100 percent since 1976—from 410,000 reports in 1976 (*20*) to more than 929,000 in 1982 (*21*)—there is still significant underreporting of maltreated children by both professionals and lay people.

NCCAN's program includes efforts to support healthier parent-child relationships in the general population and in at-risk segments of the population, such as families living in poverty, adolescent parents, parents with handicapped children, and parents who themselves were maltreated as children. In addition, secondary and tertiary preventive programs focus on families already identified as experiencing abuse and neglect problems. During the period 1981–83, particular attention was given to perinatal preventive services to parents having their first children. Parents Anonymous, an organization that is supported in part by NCCAN funds, has inaugurated a new program, "Children Helping Children," as a prevention-treatment auxiliary to its parental self-help approach.

In 1983, NCCAN initiated support of three projects testing multiagency committees of inquiry into child abuse related fatalities. This is an effort to help communities diagnose flaws in their protective systems for children that may contribute to the systems' failures to prevent fatalities.

NCCAN provides grants to States to improve their ability to handle reports and investigate incidents of child abuse, to provide protective and treatment services, to sponsor parental self-help organizations, to distribute information to the public to increase awareness of the problem of child abuse, and to address special needs of teenage parents and their infants.

Through such measures as grants and joint conferences, NCCAN encourages private sector organizations to continue and expand their efforts to reduce the incidence of child abuse. These efforts include multidisciplinary case consultation, 24-hour hotlines, self-help groups for parents, public awareness activities, and hospital and school prevention and intervention programs.

In September 1983, NCCAN convened the Sixth National Conference on Child Abuse and Neglect in order to review progress and obtain recommendations for future action strategies. A descriptive listing of Federal programs related to child abuse and neglect was distributed by NCCAN to the States in April 1983. Public information materials, including films, have been developed by NCCAN and disseminated to States and private sector organizations to enable them to take more active leadership roles.

Research on family violence is being supported by NIMH and NCCAN. NIMH is funding research aimed at providing cross-validation of a new screening instrument known as the Child Abuse Potential Inventory (CAPI). When validated, the CAPI will enable mental health personnel, protective service workers, social service workers, and others to identify parents at greater risk for future involvement in child abuse and neglect. The Institute also convened a planning workshop on prevention research on the assessment, correlates, and treatment of disabling anger (held January 19–21, 1983, in Menlo Park, Calif.), at which participants discussed efforts to reduce the incidence of child abuse.

Risk factors associated with child abuse are being assessed by CDC's Violence Epidemiology Branch.

10. By 1990, the reliability of data on the incidence and prevalence of child abuse and other forms of family violence should be greatly increased.

As noted earlier, reported incidents of child abuse have increased by more than 100 percent since 1976. This

increase reflects both growth in the number of occurrences and an increase in the number of reports because of growing awareness of the importance of reporting child abuse. However, NCCAN estimates that fully two out of three incidents of maltreatment are not reported by professionals who are aware of their existence.

In collaboration with the States, CDC is carrying out epidemiologic studies and surveillance of child abuse, homicides, and other forms of violence to persons in order to identify potential prevention measures. The classification of child homicides by age group, and the epidemiologic differentiation of homicides by fatal and nonfatal child abuse as well as by age group, represent efforts to identify risk factors for child abuse and, ultimately, to identify effective prevention strategies. In addition, CDC plans to convene conferences of experts on child abuse and family violence. The goal of these conferences will be to outline directions in surveillance, epidemiologic studies, evaluation of prevention measures, and interorganizational coordination.

Related Federal Efforts

NIMH staff work with several additional agencies in pursuing control of stress and violence. For example, the Health Resources and Services Administration (HRSA) is involved in activities to control stress and violent behavior through direct care services, education of the public and health professionals, and research and demonstration projects. Several U.S. population groups for which HRSA is responsible are at increased risk for suffering the effects of stress and violent behavior. These groups include the "medically underserved" as well as more specifically identified populations such as migrant workers, handicapped children, children and adolescents in general, and American Indians and Alaska Natives. Data for the last group confirm that, compared with the general population, a disproportionately high mortality rate exists from events associated with stress and violent behavior (for example, homicide, suicide, accidents, and alcohol-related deaths). The suicide rate for young American Indians and Alaska Natives, for example, is several times higher than the national rate (in the 20- to 24-year age group in 1978, 66.2 per 100,000 for American Indians and Alaska Natives versus 16.9 per 100,000 for Americans of all races).

Within HRSA, individual bureaus are developing programs responsive to the needs of their particular client groups. The Bureau of Health Professions concentrates on the education and training of health professionals to manage stresses of their patients and of their professional lives. The Bureau of Health Care Delivery and Assistance provides technical assistance, training, and research support for stress management activities for patients in community-oriented primary health care settings. The Indian Health Service focuses on stress management intervention for American Indian and Alaska Native patients. Additionally, the IHS is concerned with developing interventions to protect against "burnout" of clinical staff.

Specific HRSA programs include stress management seminars, alcoholism prevention activities, educational programs on parenting, and development of educational materials on individual topics such as sudden infant death syndrome, fetal alcohol syndrome, and child abuse and neglect. Most HRSA programs dealing with the control of stress and violent behavior are integrated into primary health care service and training activities provided through or assisted by the agency.

To improve prevention and care activities, HRSA anticipates development of closer collaboration with agencies such as the Alcohol, Drug Abuse, and Mental Health Administration in the areas of research and research training. This collaboration will combine ADAMHA's expertise in dealing with stress and violent behavior with HRSA's expertise in disseminating this information in a primary care setting.

Conclusions

This review both summarizes what has been done and previews future steps to achieve the Objectives for the Nation for control of stress and violent behavior.

Progress toward achievement of the objectives requires an accurate assessment of the baseline, current, and future status of our efforts to control stress and violent behavior. Existing surveillance mechanisms in this area are limited, which accounts for the lack of valid baseline data for many of the objectives.

Efforts are underway to develop valid and reliable baseline data and surveillance procedures. Modifications of the objectives will then be made that will both strengthen them and reflect current scientific knowledge.

Overall, the role of the Federal agencies in the achievement of the Objectives for the Nation has been, and will continue to be, that of catalyst for the development of research; disseminator of information to State, local, and community agencies; and, for the future, developer and provider of surveillance information.

References

1. Elliott, G. R., and Eisdorfer, C., editors: Stress and human health. Springer Publishing Company, New York, 1982.
2. Department of Health, Education, and Welfare: Healthy people—the Surgeon General's report on health promotion and disease prevention. DHEW Publication No. (PHS) 79–55071. U.S. Government Printing Office, Washington, D.C., 1979.

3. Department of Health and Human Services: Promoting health/preventing disease: objectives for the nation. U.S. Government Printing Office, Washington, D.C., fall 1980.
4. Department of Health and Human Services: Promoting health/preventing disease: Public Health Service implementation plans for attaining the objectives for the nation. Public Health Rep, September-October 1983 (Supplement), pp. 167–176.
5. Bagley, C.: An evaluation of suicide prevention agencies. Life Threat Behav 1: 246–259 (1971).
6. Litman, R., and Wold, C.: Beyond crisis intervention. *In* Suicidology: contemporary developments, edited by E. Schneidman. Grune and Stratton, Inc., New York, 1976, pp. 525–546.
7. Bridge, P., et al.: Suicide prevention centers: ecological study of effectiveness. J Nerv Ment Dis 164: 18–24 (1977).
8. Welu, T.: A follow-up program for suicide attempters: evaluation of effectiveness. Suicide Life Threat Behav 7: 17–30 (1977).
9. Motto, J.: Suicide prevention for high risk persons who refuse treatment. Suicide Life Threat Behav 6: 223–230 (1976).
10. Motto, J.: Communication as a suicide prevention program. *In* Depression and suicide, edited by J. Subrier and J. Vearinne. Pergamon Press, Paris, 1983, pp. 148–154.
11. Kopolow, L. E.: Plain talk about handling stress. DHHS Publication No. (ADM) 83–502. Rockville, Md., 1983.
12. Wechsler, H., et al.: The physician's role in health promotion—a survey of primary care practitioners. N Engl J Med 308: 97–100 (1983).
13. Hankin, J., and Oktay, J. S.: Mental disorder and primary medical care: an analytical review of the literature. DHEW Publication No. (ADM) 78–661. U.S. Government Printing Office, Washington, D.C., 1979.
14. National Center for Health Statistics: Advance report of final mortality statistics, 1979. Monthly Vital Statistics Report, vol. 31, No. 6, Sept. 30, 1982, pp. 14–28.
15. Centers for Disease Control: Violent deaths among persons 15–24 years of age—United States, 1970–1978. MMWR 32: 453–457, Sept. 9, 1983.
16. Peck, M.: Suicide motivation in adolescence. Adolescence 3: 109–118, summer 1968.
17. Robins, E., et al.: Some clinical considerations in the prevention of suicide based on a study of 134 successful suicides. Am J Public Health 49: 888–899 (1959).
18. Dorpat, T. L., and Ripley, H. S.: A study of suicide in the Seattle area. Compr Psychiatry 1: 349–359 (1960).
19. Barraclough, B., Bunch, J., Nelson, B., and Sainsbury, P.: A hundred cases of suicide: clinical aspects. Br J Psychiatry 125: 355–373 (1974).
20. National Center on Child Abuse and Neglect: Study of official reports of child neglect and abuse: 1976. Washington, D.C., 1977.
21. American Humane Association: Study of official reports of child abuse and neglect: 1982. Washington, D.C., 1983.

The Social Desirability of Preventive Health Behavior

CONNIE M. KRISTIANSEN, BSc, MSc
CHRISTINA M. HARDING, BSc, PhD

The authors are with the Health Behavior Research Group, Department of Psychology, University of Exeter, Exeter, England EX4 4QG. Tearsheet requests to Ms. Kristiansen.

This research was funded by a grant from the Health Education Council, London, England.

Synopsis

The relationship between measures of social desirability and various preventive health behaviors was examined directly for 235 females and 171 males from the British public and 182 females and 49 males from the University of Toronto, Canada. Both simple and partial correlations controlling for age showed that social desirability scores were related to total preventive behavior scores formed on the basis of the responses to 42 items, as well as many of the individual preventive behavior items. To ensure that this relationship was not unique to the present study, the response frequencies for 15 behavior items in this study were compared with those reported by another investigator who also used these 15 behavior items, and were found to be quite similar. Simple and partial correlations controlling for age showed that social desirability scores were significantly correlated with more of these 15 behaviors than one would expect by chance. The implications of the association of social desirability and preventive health behavior for the measurement of preventive health behavior, future research, and health education are discussed.

RATHER THAN ATTEMPTING TO DOCUMENT the factors that influence preventive health behavior (PHB), recent research has focused on its conceptualization and measurement. This shift of attention has been a result of various ambiguities regarding such things as the definition of "health" (*1*), the psychometric characteristics of scales that purport to measure PHB (*2*), and the complex nature of PHB (*3–5*).

One potentially problematic aspect of the measurement of PHB, mentioned by Green (*6*) and Langlie (*7*), is