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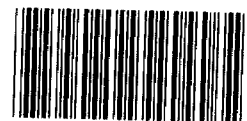


United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

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August 30, 1993



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The Honorable Thomas Harkin
Chairman, Subcommittee on Labor,
Health and Human Services,
Education, and Related Agencies
Committee on Appropriations
United States Senate

The Honorable Arlen Specter
Ranking Minority Member
Subcommittee on Labor,
Health and Human Services,
Education, and Related Agencies
Committee on Appropriations
United States Senate

The Honorable William H. Natcher
Chairman, Subcommittee on Labor,
Health and Human Services,
Education, and Related Agencies
Committee on Appropriations
House of Representatives

The Honorable John Edward Porter
Ranking Minority Member
Subcommittee on Labor,
Health and Human Services,
Education, and Related Agencies
Committee on Appropriations
House of Representatives

As one of eight Public Health Service (PHS) agencies,¹ the Centers for Disease Control and Prevention (CDC) plays a major role in safeguarding the health of the American people. Established in the 1940s to control communicable

¹The other PHS agencies are the National Institutes of Health (NIH), Substance Abuse and Mental Health Administration (SAMHSA), Health Resources and Services Administration (HRSA), Agency for Toxic Substances and Disease Registry (ATSDR), the Indian Health Service (IHS), the Food and Drug Administration (FDA), and the Agency for Health Care Policy and Research (AHCPR).

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diseases, CDC has evolved over time to encompass the prevention and control of chronic diseases, injuries, and disabilities. In recent years, CDC's funding and staff have increased rapidly.

Concerned that the current scope of CDC's programs and activities² has extended CDC beyond its early focus on communicable disease, the House Committee on Appropriations requested that we evaluate (1) the appropriateness of CDC's programs, given its mission, focusing on the agency's involvement in chronic disease, intentional injury (for example, suicide, homicide, and assaults), and the funding of services, such as cancer screening, and (2) the duplication of program activities, if any, between CDC and other PHS agencies.

As agreed with the House Committee's staff, we are providing this letter in response to the Committee's request for our preliminary work results. A final report responding to mandates from both the House and Senate Committees on Appropriations will follow when we have completed our study.

BACKGROUND

CDC evolved from the Atlanta-based Office of Malaria Control in War Areas (MCWA). During World War II, MCWA sought to eradicate mosquitoes that posed a threat to soldiers and industrial workers working on the war effort in the South. In 1946, the MCWA was renamed, and the Communicable Disease Center was officially established under the U.S. Public Health Service. In 1970, CDC's name was changed to the Center for Disease Control and, finally, in 1992, the agency was renamed the Centers for Disease Control and Prevention under P.L. 102-531.

²"Activities" refers to public health functions, such as surveillance, which is the collection of data about a population's health status; epidemiology, which is the study of the natural history of disease in a population and the factors that determine its spread; applied research; demonstration projects in communities; health education and promotion; and evaluation and assessment.

CDC's mission is to prevent and control unnecessary disease, injury, and disability.³ CDC's major functions are (1) identifying and assessing public health problems and their causes through surveillance⁴ and epidemiology,⁵ (2) developing and testing interventions to prevent or minimize health problems, (3) implementing interventions through state and local public health departments and community-based organizations, and (4) measuring and evaluating the effectiveness of these interventions. CDC is the main assessment and epidemiologic unit for the nation and provides financial and technical assistance to states and localities.

From fiscal years 1987 to 1992, CDC's appropriations rose from \$587 million to about \$1.5 billion. Over the same period, the Congress authorized a 40.3-percent increase in CDC's full-time equivalent staff. Currently, CDC expends more than 75 percent of its funds in the form of grants and other assistance to state and local health departments and other external organizations to support the agency's programs.

Although many PHS agencies address the same public health issues, such as cancer, diabetes, environmental health, and immunization, their basic focus is different. NIH, which

³One CDC mission statement says "The mission of CDC is to promote health and quality of life by preventing and controlling disease, injury, and disability." Another describes its mission as "to improve the quality of life for all Americans by preventing unnecessary disease, disability, and premature death and by promoting healthy lifestyles," including the prevention of injury and controllable risk factors. A Department of Health and Human Services's (HHS) notice in the Federal Register states that CDC's mission is to "prevent unnecessary illness and death and to enhance the health of the United States" (47 FR 67772).

⁴Surveillance refers to the systematic collection of information about a population's health status, such as data on morbidity, mortality, disability, injuries, and risk factors.

⁵Epidemiology is the systematic, objective study of the natural history of disease within populations and the factors that determine its spread, as described in The Future of Public Health, a report by the Institute of Medicine.

is the primary biomedical research arm of the government, conducts and supports research projects across the nation. HRSA is primarily concerned with the development of health resources and manpower. SAMHSA concentrates on developing programs to prevent and treat alcohol and substance abuse and to address mental health issues. HRSA and SAMHSA establish and support health services for their target populations through grants and contracts to state and local government agencies and private health care institutions.

SCOPE AND METHODOLOGY

Our criteria for assessing the appropriateness of CDC's activities were whether CDC had the (1) legislative mandates, (2) historical roles,⁶ and (3) organizational capabilities⁷ to conduct these activities. We considered program activities duplicative if different PHS agencies were conducting the same function or activity, directed at the same target population, for the same purpose. As agreed with both the House and Senate Committees on Appropriations' staffs, we limited our review to program activities with budgets of \$1 million or more.

To evaluate the appropriateness of CDC's programs, given the agency's mission, and to determine whether there was any duplication of activities between CDC and other PHS agencies, we visited CDC, NIH, HRSA, and SAMHSA and had extensive meetings with officials in the program areas that we reviewed.⁸ These program areas were diabetes, breast and cervical cancer, tobacco control (that is, activities for smoking prevention and cessation, smokeless tobacco,

⁶Given the concern about CDC's widened scope of activities, we agreed with the House Committee on Appropriations to examine historical precedents for programs within CDC's broad legislative authority.

⁷We use the term "organizational capabilities" or capacity to mean an agency's organizational structure, human and physical resources, and established relationships with other organizations.

⁸Under agreement with the House and Senate Committees on Appropriations, for this study we have not examined programs at IHS, FDA, AHCPR, and ATSDR.

etc.), intentional injury, and immunization.⁹ We also reviewed agencies' documents on these program areas as well as mission statements and legislative histories of the agencies and several of their programs.

Finally, as the House Committee's staff requested, we interviewed experts in public health to obtain their opinions on the appropriateness of CDC programs and activities, considering the agency's mission. The 16 experts included commissioners of state health departments, deans of leading schools of public health, and directors of health associations.

Our work is being conducted in accordance with generally accepted government auditing standards.

CDC'S LEGISLATIVE AUTHORIZATION

CDC has broad legislative authority to protect the health of Americans by preventing and controlling diseases and injuries. Furthermore, legislation and congressional committee report language also support CDC's programs on specific diseases and on injuries as part of its mission.

The Public Health Service Act of 1944 (P.L. 78-410) initially provided the Surgeon General with the authority to establish a disease prevention role for the Communicable Disease Center, which later became CDC. The first legislative authority to expand CDC's programs beyond communicable diseases came in 1973, when the National Institute for Occupational Safety and Health (NIOSH) was transferred to CDC. The act that created NIOSH gave the institute the responsibility for addressing diseases, injuries, psychological factors, and other conditions that might affect workers. In 1974, CDC was authorized through the Secretary of Health, Education, and Welfare (now HHS) to include other diseases in its disease control programs beyond communicable diseases. Under the Disease Control Amendments of 1976, CDC was specifically authorized to establish or support disease control programs for a broad range of health conditions. This authorization included programs to encourage behavior that would prevent diseases, according to legislation (P.L. 94-317, Sec. 317F) and

⁹Tobacco control and environmental and occupational safety and health will be discussed in our final report when we have completed our review of these areas.

congressional committee report language.¹⁰ By broadening the definition of disease control program, the law authorized CDC to address other health problems of national significance that can be controlled.

CDC has specific legislative authority to conduct prevention or control activities in diabetes, breast and cervical cancer, and injury.¹¹

◆ CDC was charged with developing diabetes control programs under the Disease Control Amendments of 1976. In its long-range plan to address diabetes, the National Commission on Diabetes¹² recommended in 1976 that CDC design and implement coordinated community initiatives for overcoming barriers to the effective care and treatment of diabetes. In response to the legislation, CDC began supporting state-based programs to prevent and control the complications of diabetes. In 1987, a Senate Committee on Appropriations report established a Diabetes Translation Center at CDC, making CDC the lead agency for translating and coordinating diabetes research findings into widespread clinical and public health practice.¹³

◆ Breast and cervical cancer are chronic diseases for which CDC has legislative authority to conduct detection and control activities. The Breast and Cervical Cancer Mortality Prevention Act of 1990 (P.L. 101-354) authorizes CDC to make grants to states for the early detection and control of these cancers. The states' programs are required to screen women for breast and cervical cancer,

¹⁰Report of the Committee on Labor and Public Welfare, U.S. Senate (Senate Report 94-330, July 24, 1975) p. 12.

¹¹We address immunization programs later in this correspondence, in the discussion on duplication.

¹²The National Commission on Diabetes was established in 1974 under the National Diabetes Mellitus Research and Education Act (P.L. 93-354). The Commission was directed to formulate a long-range plan to combat diabetes mellitus, with specific recommendations for organizing and using national resources. In 1976, the Commission reported its recommendations, which became the basis for the 1976 legislation.

¹³Report of the Committee on Appropriations, U.S. Senate (Senate Report 100-189 for P.L. 99-500, Sept. 25, 1987) pp. 72-73.

particularly low-income women who are not covered by other programs; provide referrals and follow-up; develop and disseminate information about the detection and control of these cancers; improve the education and training of health professionals; and monitor the quality of screening procedures. In providing technical assistance to the states, the act authorizes CDC to provide personnel in lieu of grant funds at the grantee's request.

◆ In the area of injury, including intentional injuries, CDC has a legislative mandate to be actively involved in research and control activities for injuries. The Injury Prevention Act of 1986 directs CDC to collect and disseminate information, administer a grant program, and assist states and community health agencies in activities to prevent and control injuries. Both the act and congressional committee reports describe injuries as "a major public health problem." Although intentional injury was not specifically mentioned in the act, in congressional discussions and in a major National Academy of Sciences report,¹⁴ homicide and suicide are cited as causes of injury that require more research. In 1992, congressional committee reports expressly requested that CDC emphasize preventing injury that stems from violence. Because of the increase in violent behavior and death in the United States, the committee reports urged CDC to continue its strong focus on community demonstration interventions on violence.¹⁵

CDC'S PROGRAM HISTORY

CDC has a long history of involvement in programs and activities to prevent and control chronic diseases and injury. The agency's activities in some areas often predate legislation that established specific programs. CDC began to include chronic diseases among its programs in the early 1970s, when the National Clearinghouse for Smoking and Health was transferred to the agency. In 1975,

¹⁴The National Academy of Sciences, Injury In America: A Continuing Public Health Problem, 1985. This report recommended that a center for injury control be established at CDC and became the impetus for the Injury Prevention Act of 1986.

¹⁵Reports of the Committees on Appropriations, U.S. Senate (Senate Report 102-397, Sept. 10, 1992), pp. 65-66, and House of Representatives (House Report 102-708, July 23, 1993), pp. 49-50.

CDC established a chronic disease division whose programs targeted certain cancers and birth defects. CDC's diabetes program was established in 1977 following recommendations from the National Commission on Diabetes and the legislation that arose from these recommendations. CDC was also reorganized in 1980, following the recommendation of an advisory committee of outside experts, to better carry out public health activities in chronic diseases, environmental health, and lifestyle issues.

For some time, CDC has also funded services to be delivered to the public through state and local health departments. For example, controlling polio became CDC's responsibility under the Surgeon General in the early 1960s. In response to the Vaccination Assistance Act of 1962, CDC provided Immunization Assistance Grants to state and local health departments to pay for the costs of vaccination programs for children under age five for immunization against polio and other preventable diseases. CDC's public health advisors also participated in these broad-scale immunization campaigns. Similarly, in the 1980s, CDC supported demonstration projects on breast and cervical cancer that included identifying barriers to cancer screening.¹⁶

CDC's involvement in injury prevention and control dates back to the 1970s, before the injury legislation, when epidemiologists began investigating the causes of falls, burns, and other kinds of unintentional injuries. Later, CDC added violence-related injuries to its list of public health priorities. In 1981, CDC began initiatives to improve estimates of child abuse, homicide, and other forms of violence, and 2 years later, CDC established a violence epidemiology branch to study child abuse, homicide, and suicide. In its 1985 report, the National Academy of Sciences also cited intentional injury, particularly assaults, as a public health problem. The Academy made

¹⁶Cancer screening can be viewed as a means of assessing the health status of a population as well as a personal health service. For example, in its report on The Future of Public Health, the Institute of Medicine cited screening programs as a health assessment activity, under epidemiology, rather than as a service. Screening can also be regarded as a prevention activity, since breast and cervical cancer are not now preventable, but deaths from these diseases--especially cervical cancer--can be prevented if the cancer is detected early and treated properly.

clear that research was needed on the prevention of injuries and recommended that a center for injury control be established at CDC. In 1987, CDC expanded its National Center for Environmental Health to include injury control, and in 1992 the National Center for Injury Prevention and Control was established at CDC.

Behavioral Interventions

Injury, including violence-related injury, lends itself to behavioral interventions, such as encouraging children to wear bike helmets or teaching conflict-resolution techniques to young people. But injury and violence are not the only program areas that draw upon behavioral interventions as a means of preventing or controlling a health problem. CDC has a history of using behavioral intervention strategies to address public health problems.¹⁷ In tuberculosis, for example, CDC has conducted public education activities on the importance of compliance with medication treatment schedules to prevent and control the disease. Other behavioral interventions included in CDC programs are helping teenagers to stop smoking, preventing toddlers from eating paint that may contain lead, and supporting the importance of using condoms to prevent and control the spread of sexually transmitted diseases.

CDC'S ORGANIZATIONAL CAPABILITIES

Organizationally, CDC carries out disease prevention and control activities through its multidisciplinary technical staff and its longstanding relationships with state and local health departments. States are "the primary locus for action in the public health arena," because they have the primary responsibility for their citizens' health.¹⁸

¹⁷Stating that "numerous reports have documented the enormous impact of behavior on health," the Congress recently established an Office of Behavioral and Social Science Research within the Office of the Director of NIH. See Conference Report 103-100, May 20, 1993, p. 109, accompanying the NIH Revitalization Act of 1993 (P.L. 103-43, section 203).

¹⁸The Future of Public Health, Committee for the Study of the Future of Public Health, Division of Health Care Services, Institute of Medicine (Washington, D.C.: National Academy Press, 1988), p. 10 and p. 48.

CDC's technical staff supports its efforts in prevention and control. CDC has more than 7,000 staff positions distributed among its Atlanta headquarters, regional offices, state and local field offices, Puerto Rico, territories, and foreign countries. Nearly half of the staff (about 3,200) are in technical positions, such as medical officers, epidemiologists, environmental health scientists, health science administrators, computer specialists, statisticians, behavioral scientists, and public health educators.

Two additional job positions that are important to CDC's functions are Public Health Advisors (PHAs) and Epidemic Intelligence Service (EIS) officers. PHAs conduct disease intervention activities; manage and evaluate programs; and provide technical assistance to state, local, and foreign governments, and other organizations. A large portion of PHAs are assigned to state and local health departments. CDC's EIS program is a 2-year program of training and service in applied epidemiology for staff with expertise in medicine, nursing, and other fields. The primary objectives of the EIS program are to (1) help CDC prevent and control diseases, (2) increase the number of field-trained epidemiologists in the United States, and (3) provide services to state and local health departments and improve disease surveillance nationally. EIS officers also serve as a rapid response team for emergent problems that might cause disease, disability, and injury. One-third of EIS officers are assigned to state health departments.

As part of its efforts to support and strengthen public health activities at the state and local level, CDC provides financial assistance to state and local governments through grants. CDC staff are often provided as technical assistance at the state's request in lieu of grant funds. About 75 percent of CDC's funds are provided to state and local health departments to support activities such as health education programs about diabetes and breast and cervical cancer; screening programs for breast and cervical cancer; hypertension and cholesterol screening; school health programs; and public information campaigns on smoking and seatbelt use. Grants to states, cities, and counties support, among other things, the purchase of vaccines and immunization of preschoolers, school-aged children, and adults; identification and prevention of lead poisoning; testing, counseling, and referral of persons with sexually transmitted diseases, including HIV; and fluoridation of local water systems.

Unlike other PHS agencies, CDC's primary constituencies for its programs are the state and local public health departments. NIH's primary constituencies are researchers in the biomedical sciences; HRSA's are its Community and Migrant Health Centers and the Maternal and Child Health Bureaus in state governments; and SAMHSA's primary constituencies are state and community programs to treat and prevent substance abuse and mental disorders.

CDC's links with state and local governments date back almost half a century. These links are important since states are the primary vehicles for implementing public health strategies in this country. CDC's predecessors, the MCWA and the Communicable Disease Center, started in the 1940s as field stations within the PHS's Bureau of State Services. This assignment followed the 1944 legislative reorganization of PHS into four divisions, one of which was the Bureau of State Services. In 1976, CDC's role in assisting states and localities was cited in congressional committee report language, which stated that "the technical assistance capabilities of the CDC should be fully utilized in helping the states and localities strengthen each of their [disease] control programs."¹⁹

PUBLIC HEALTH EXPERTS ON CDC'S MISSION

CDC is regarded within the health community as the nation's leading prevention agency, many experts in public health said.²⁰ CDC's efforts to prevent and control chronic diseases and injuries are appropriate as part of its mission to protect the health of the American people. Most experts considered it appropriate for CDC to support services such as breast and cervical cancer screening, especially until the health care system provides these prevention services.

According to the public health experts we consulted, CDC's programs and activities in chronic diseases, such as diabetes, and in violence-related injuries are appropriately within the agency's mission. Several experts indicated that CDC's work in chronic diseases, and

¹⁹Report of the Committee on Labor and Public Welfare, U.S. Senate (Senate Report 94-330, July 24, 1975), p. 12.

²⁰The "Red Book," a study for CDC by outside experts, noted in 1978 that "many persons, including the Committee members, already view CDC as the primary advocate for disease prevention among Federal health agencies."

especially in injury, is a logical extension of the agency's focus on population-based surveillance and epidemiology. CDC's programs respond to pressing public health problems, as defined by their prevalence in the population and the years of potential life lost as a result of the condition or disease.²¹ The experts agreed that these criteria for identifying priority health problems are appropriate. CDC's view of injury as a public health problem, for example, stems from epidemiological data showing that injury is the leading cause of death among people from ages 1-45 and accounts for the most years of life lost among children and young adults.²² Most of the experts we consulted agreed that injury and violence were appropriate problems for CDC to be working on.

Within the health community, CDC is regarded as the nation's leading prevention agency largely because of its foundation in surveillance and epidemiology. In addition, CDC has longstanding established working relationships with state and local health departments, which are essential to conduct public health activities nationwide. Several experts cited these organizational strengths, and especially CDC's outreach to communities, as important to CDC's ability to translate research into public health practice.

DUPLICATION BETWEEN CDC AND OTHER PHS AGENCIES

Although some PHS agencies conduct similar activities, such as public education and information dissemination, our preliminary results show no apparent duplication for the program activities that we reviewed. That is, in these program areas, none of the agencies we reviewed conducted the same activity directed to the same target population for the same purpose. To date, we have reviewed PHS agencies--CDC, NIH, and HRSA--that had major activities in at least one of four program areas: diabetes, breast and

²¹In setting priorities for its programs, CDC also considers the degree to which the disease or condition is preventable given what is known scientifically to date.

²²CDC is by no means alone in viewing intentional and unintentional injury as a public health problem that is preventable. In addition to the National Academy report in 1985, the year 2000 objectives established by the Department of Health and Human Services cite injuries as a major public health issue, and HHS supports programs to prevent them or to mitigate their impact.

cervical cancer, immunization, and intentional injury.²³ Each PHS agency has primary functions--such as conducting basic research or addressing substance abuse in specific populations--that distinguish them from the other agencies, and these functions, for the most part, guide the focus of their work.

Because some agencies have responsibilities for the same health program areas and conduct similar activities, many formal coordinating channels exist. Agency officials said that both formal and informal coordination and collaboration generally help deter duplication.

The following sections illustrate major activities that the agencies we reviewed support or conduct in four program areas.

Diabetes

Although both CDC and NIH have substantial diabetes programs, they do not duplicate each other. CDC supports state-based diabetes control programs to prevent and control the complications of diabetes. CDC also serves as the lead federal agency for the translation of diabetes research into public health practice. One major CDC project illustrates the agency's emphasis on diabetes: Project DIRECT²⁴ is designed to demonstrate the effectiveness of community-based public health approaches in reducing the burden, risk factors, and complications of diabetes. NIH, by contrast, primarily conducts research trials to establish the scientific basis for and consequences of diabetes. Much of NIH's diabetes research is extramural and is conducted at universities, medical schools, and diabetes centers at major research institutions.

Breast and Cervical Cancer

CDC's major focus in breast and cervical cancer is on the diseases' early detection and control. CDC's state grant program includes screening, referrals for follow-up

²³We included six program areas in the scope of our work. But, because we are continuing our review of the environmental health and tobacco control areas, these programs are not discussed in this interim correspondence.

²⁴Project DIRECT stands for "Diabetes Intervention: Reaching and Educating Communities Together."

services, and mechanisms for monitoring the quality of screening procedures. Through state health departments, the state programs make screening and follow-up services available to all women, particularly those of low-income who are not covered by other programs. HRSA provides support for screening as part of its comprehensive primary care for the women it serves through its community-based programs. NIH conducts and funds research to discover effective cancer prevention measures. The research includes barriers to compliance with early detection recommendations and new detection technologies. NIH also develops guidelines for screening and educational materials for patients, the public, and health professionals.

Immunization

CDC supports nationwide immunization efforts by providing grants to states and localities for the purchase of childhood vaccines at half-price. Other CDC activities include assisting state and local health agencies in planning and implementing immunization programs and supporting a national reporting system on adverse reactions to vaccines. HRSA supports immunizations through the comprehensive primary care services for low-income families that are provided in HRSA's Community and Migrant Health Centers and through states' primary preventive care programs for women and children, which are funded through the Maternal and Child Health Block Grants. HRSA has an agreement with CDC to determine the vaccine needs of the Community and Migrant Health Centers and receives vaccines purchased by states under CDC's purchase contract. HRSA also administers the National Vaccine Injury Compensation Program that provides no-fault compensation for injuries caused by vaccines covered under the program. NIH conducts basic research on vaccines, such as studies on the immune system, microbiology, and virology, and supports vaccine research at universities.

Intentional Injury

CDC has been designated by the Secretary of HHS as the lead agency within HHS to coordinate activities on the prevention of violence. CDC's recognition of violence as a preventable public health problem is the impetus for two CDC activities, among others. One is the surveillance of nonfatal firearm injuries or assaults, conducted collaboratively with local hospitals and police departments. The other is a research demonstration project in which CDC supports community-based research on violence prevention and control among youth. The demonstration

B-254503

programs entail multifaceted interventions, such as conflict resolution, mentoring, and the reduction of access to firearms.

NIH also supports research on violence prevention. Although much of its research has been with clinical populations, NIH's National Institute of Mental Health (NIMH) supports research on the prevention of violent and aggressive behavior. NIMH's primary objective in violence prevention is to improve the understanding of the mental health antecedents and consequences of violent behaviors, for both perpetrators and victims. Some of NIMH's preventive intervention research has led to the development of early childhood intervention programs. The NIMH is funding preventive intervention research with several universities and school districts.

HRSA has supported projects on violence prevention for several years. Since 1978, HRSA has funded violence prevention demonstration and implementation incentive grants in several states that focused on children and adolescents. HRSA coordinates with agencies like CDC that fund research, which includes HRSA constituent populations. HRSA also coordinates and collaborates with other agencies on educational publications and conferences on violence prevention.

In November 1991, the HHS Office of the Inspector General issued a report on injury control to determine the nature and extent of possible overlap among PHS agencies' injury control programs. The report found no duplication with regard to the specific projects reviewed.²⁵

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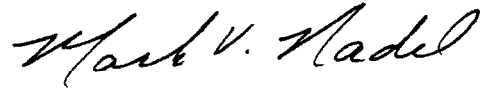
We are sending copies of this correspondence to the Secretary of Health and Human Services; the Assistant Secretary for Health; the Director, CDC; the Director, NIH; the Administrator, HRSA; and other interested parties. We will make copies available to others on request.

²⁵Injury Control, U.S. Department of Health and Human Services, Office of Inspector General (Nov. 1991).

B-254503

Please contact me at (202) 512-7118 if you or your staff have any questions.

Sincerely yours,

A handwritten signature in cursive script that reads "Mark V. Nadel".

Mark V. Nadel
Associate Director, National and
Public Health Issues

(108975)