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PUBLIC HEALTH SERVICES

Agencies Use Different Approaches to Protect Public Against Disease and Injury

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Congressional Committees

The Public Health Service (PHS) conducts or supports national programs of health services delivery, disease prevention, health promotion, and biomedical research through eight PHS agencies.[1] Because agencies' programs often address the same diseases or conditions, the potential exists for the agencies to duplicate each other's activities. In an era of budget constraints and competing fiscal priorities, the Senate and House Committees on Appropriations want to ensure that they do not fund duplicate programs and activities.

Furthermore, the House Committee on Appropriations was concerned about the expansion of funding for the Centers for Disease Control and Prevention (CDC) in recent years. In 5 years, from fiscal years 1987 to 1992, CDC's appropriations rose from $587 million to about $1.5 billion. The Committee also was concerned about the broadened scope of CDC's programs and activities that has extended the agency beyond its early focus on communicable disease. CDC evolved from an office established in the 1940s to control the spread of malaria during World War II to an agency whose mission is to prevent and control disease (including chronic disease), injury, and disability for all Americans.

This briefing report responds to your directive[2] that we evaluate the (1) possible duplication of program activities among the PHS agencies[3] and (2) appropriateness of CDC's programs, particularly those involving chronic

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

[2]Committee on Appropriations, U.S. Senate (Senate Report 102-397, Sept. 10, 1992), p. 72, and Committee on Appropriations, U.S. House of Representatives (House Report 102-708, July 23, 1992), p. 53.

[3]"Activities" refers to public health functions as described by the Institute of Medicine's Committee for the Study of the Future of Public Health in its report, The Future of Public Health. These include 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; financial and technical assistance; resource development; demonstration projects in communities; health education; and evaluation and assessment.

diseases, intentional injury,[4] and the funding of health services, such as cancer screening.[5] We briefed your staffs on the results of our review.

In summary, no PHS agency was duplicating another PHS agency's public health activities in the program areas that we reviewed. Also, CDC's programs were appropriate considering the agency's legislative authority and its history of prevention and control activities in chronic diseases and other health conditions. Public health experts we consulted support CDC's activities.

Background

Many PHS agencies have mandates to address the same public health issues, such as cancer, diabetes, environmental health,[6] and immunization. However, in addressing these health problems, these agencies have different orientations. CDC is the main epidemiologic and health assessment unit for the nation and provides financial and technical assistance to states and localities, which implement interventions to prevent and control disease, injury, and disability. NIH, which is the leading biomedical research arm of the government, sponsors research projects across the nation. HRSA is primarily concerned with developing health resources and manpower and providing services to low-income populations and others at risk. 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

In our analyses to determine whether there was duplication among PHS agencies, we examined the following program elements: the public health activities being conducted, their purpose(s), and the activities' target populations. To be considered a duplicate program activity, all three elements had to be the same in two or more agencies. If the activity or purpose was the same, or similar, we considered the programs potentially duplicative, warranting further analysis. In analyzing further, we examined other related factors, such as the activity's goals, time frames, emphases, and distribution channels (for example, different geographic areas, or community health centers versus state public health departments). As

[4]Intentional injuries are those resulting from violence-related acts, such as assaults and homicide.

[5]We provided information to you on the appropriateness of CDC's programs and preliminary results of our work on duplication among PHS agencies (GAO/HRD-93-32R, Aug. 30, 1993).

[6]Environmental health includes the toxic and ecological effects of natural and synthetic chemicals, radiation, and occupation-related diseases and injuries.

agreed with both the Senate and House Committees on Appropriations' staffs, we limited our review to program areas with budgets of $1 million or more.

The six program areas we reviewed were diabetes, breast and cervical cancer, immunization, intentional injury, tobacco control (that is, activities on smoking prevention and cessation and on the use of smokeless tobacco), and environmental health. We chose these areas on the basis of discussions with your staffs and agency officials and our review of information describing these programs as high-priority areas that are addressed by more than one PHS agency.

Our criteria for assessing the appropriateness of CDC's activities were whether CDC had the (1) legislative authority, (2) historical role,[7] and (3) organizational capabilities[8] to conduct these activities. 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.

In determining whether any duplication of activities existed among the PHS agencies and in evaluating the appropriateness of CDC's programs, we visited CDC, NIH, HRSA, and SAMHSA and had extensive meetings with officials in the program areas that we reviewed.[9] We also reviewed studies, reports, program plans, and other documentation on these program areas as well as mission statements and legislative histories of the agencies and several of their programs.

We conducted our work from January to December 1993 in accordance with generally accepted government auditing standards.

Findings

Even though many PHS agencies address the same disease or condition, we did not find duplicative efforts in the six program areas that we

[7]Given 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.

[8]We use the term "organizational capabilities" or capacity to mean an agency's human resources and established relationships with other organizations.

[9]As agreed with the Senate and House Committees on Appropriations, we did not examine programs at IHS, FDA, AHCPR, and ATSDR.

reviewed—diabetes, breast and cervical cancer, immunization, intentional injury, tobacco control, and environmental health. In each program area, either the public health activities that the agencies conducted or supported were different or the purpose or target of the activities was different. In many cases, the difference in activities was clear, such as surveillance versus research.

In some cases, agencies conducted or supported similar activities, but they were not duplicative because either the purpose or the target of the activity was different. For example, CDC, NIH, and HRSA provide health education in diabetes. CDC develops educational materials and training courses that translate research into public health practice for practitioners and other community leaders. NIH funds diabetes research and training centers. These centers have educational and demonstration components with programs to educate diabetes patients on the use of new and improved methods for managing diabetes. On the other hand, HRSA funds the education and training of health personnel in its effort to guide the development of health resources. Overall, no two agencies were conducting the same activities for the same purpose and target population. (See sec. 1.)

CDC's activities in chronic diseases, intentional injury, and funding of services, such as cancer screening, are appropriate in light of its mission to prevent and control disease, injury, and disability. CDC's legislative authority, its historical roles in preventing and controlling diseases and other conditions, and its established relationship with states support the agency's activities. CDC has the legislative authority to conduct or support public health activities in diabetes, breast and cervical cancer, and intentional injury. CDC also has a history of involvement in programs to prevent and control chronic diseases and intentional injury, typically through funding to state health departments for programs and services for the public. CDC's relationship with state public health departments is important in its work because states are the main vehicles for carrying public health programs to the American people. Most public health experts we interviewed support CDC's activities to prevent and control chronic diseases and violence-related injury as part of the agency's mission to protect the health of the American public. (See sec. 2.)

Agency Comments

In commenting on a draft of this report, PHS agreed with our findings and offered several technical comments. We made the technical changes as appropriate.

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

Please contact me at (202) 512-7119 if you or your staff have any questions. Other major contributors are listed in appendix I.

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

List of Congressional Committees

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
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

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Abbreviations

ADAMHA	Alcohol, Drug Abuse, and Mental Health Administration
AHCPR	Agency for Health Care Policy and Research
ASSIST	American Stop Smoking Intervention Study
ATSDR	Agency for Toxic Substances and Disease Registry
CDC	Centers for Disease Control and Prevention
DIRECT	Diabetes Intervention: Reaching and Educating Communities Together
EMF	electromagnetic field
FDA	Food and Drug Administration
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
IAP	Immunization Action Plans
IHS	Indian Health Service
NCI	National Cancer Institute
NIAAA	National Institute on Alcohol Abuse and Alcoholism
NIDA	National Institute on Drug Abuse
NIEHS	National Institute of Environmental Health Sciences
NIH	National Institutes of Health
NIMH	National Institute of Mental Health
NIOSH	National Institute for Occupational Safety and Health
NVPO	National Vaccine Program Office
PHS	Public Health Service
SAMHSA	Substance Abuse and Mental Health Services Administration
SEER	Surveillance, Epidemiology, and End Results Program

No Duplication of Effort Found Among PHS Agencies Supporting Public Health Activities in Six Program Areas

We found no duplicative efforts in the program activities of the PHS agencies that we reviewed. In addressing the same disease or condition, some PHS agencies conduct or support similar activities, such as providing health education or financial assistance. However, in six program areas, none of the agencies conducted the same activity directed to the same target population for the same purpose.

We analyzed the activities of four agencies—CDC, NIH, HRSA, and SAMHSA—that support public health activities in at least one of these program areas: diabetes, breast and cervical cancer, immunization, intentional injury, tobacco control, and environmental and occupational health. Each agency has primary functions—such as conducting basic research or addressing substance abuse in specific populations—that distinguish them from the other agencies. These different 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,[1] many formal coordinating channels exist. Agency officials said that both formal and informal coordination and collaboration generally help deter duplication.

This section reports on the major activities that the agencies we reviewed support or conduct in six program areas.

Diabetes Prevention and Control

Except for health education, all the diabetes prevention and control program activities are different at CDC, NIH, and HRSA—the three agencies we reviewed that address diabetes. Even though all of these agencies conduct or support health education on diabetes, this activity is not duplicative because the agencies each have different target populations and purposes in their health education efforts.

Distinct Activities

- CDC is the lead federal agency for translating diabetes research into public health practice. CDC is developing and refining surveillance data at the national and state levels as well as conducting epidemiologic studies to determine the extent of diabetes in the United States. The agency provides

[1]The fact that PHS agencies support programs in the same health area is not new or unexpected. The Healthy People 2000 report establishes 300 objectives developed to help meet broad public health goals for the 1990s. PHS coordinated the development of a set of national public health objectives on health promotion and disease prevention. The report outlines activities in each PHS program area, such as diabetes, cancer, tobacco control, and intentional injury, that one or more PHS agency conducts or supports. The report also identifies the PHS agency that has lead responsibility for coordination in each program area.

financial and technical assistance to state public health departments for Diabetes Control Programs. The goal of these programs is to prevent and control the complications of diabetes, for example, by encouraging diabetes patients to obtain eye examinations to prevent diabetic blindness and by ensuring that the reimbursement system covers health education for diabetic patients. CDC also supports demonstration projects in states and communities. Project DIRECT,[2] for example, is a multiyear project testing research findings in practice. Its goal is to demonstrate the effectiveness of community-based public health approaches in reducing the burden, risk factors, and complications of diabetes, with particular emphasis on minority populations.

- NIH primarily conducts or supports basic and clinical research on diabetes to establish the causes 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. Research examples include NIH's 10-year Diabetes Control and Complications Trial and studies on genetic, immunological, and environmental factors in diabetes.
- HRSA funds primary and supplemental health care services for disadvantaged and underserved populations who have limited access to health care, such as migrant workers. These services are delivered under the Maternal and Child Health Service Block Grants and through about 550 Community and Migrant Health Centers nationwide. Many individuals with diabetes, particularly in medically underserved and rural areas, are provided services through these centers. Services can include diabetes screening, rehabilitation, treatment, and follow-up, among other health care interventions, as appropriate for the individual.[3]

Similar Activities

Although these three agencies conduct or support health education, the health education activities are not duplicative, according to our criteria, because they have different purposes, emphases, and initial target populations. These agencies also have specific legislative authority[4] to support or conduct health education in diabetes.

[2]Project DIRECT stands for Diabetes Intervention: Reaching and Educating Communities Together.

[3]HRSA health centers do not focus on a single health problem or disease because the centers provide comprehensive primary health care to individuals. Because such care addresses the diseases and conditions covered in this report, we will not repeat descriptions of HRSA's comprehensive care programs in every program area that we discuss.

[4]For example, CDC is authorized under Public Law 94-317 (1976) to provide information, including health education, on diseases that include diabetes. NIH is authorized under the Public Health Service Act, Sec. 427, to disseminate information on diabetes through a national information clearinghouse. And HRSA has the legislative authority, under 42 U.S.C. 254c and 254b, to provide education on diabetes as a supplemental service to patients in its Community and Migrant Health Centers.

- CDC develops educational materials that translate research into public health practice for community leaders, including health practitioners. These materials include consensus documents on the prevention, treatment, and management of diabetes complications and a training course on controlling and reducing diabetes in communities.
- NIH supports the education of patients about managing diabetes and its complications through NIH-funded diabetes research and training centers at universities. These centers include a training and information transfer component on the use of new or improved methods and innovative approaches to managing diabetes. NIH also disseminates information on diabetes to health care professionals, patients, and the public through the National Diabetes Information Clearinghouse.
- HRSA's Bureau of Health Professions funds the education and training of the nation's health personnel in its efforts to monitor and guide the development of health resources. Several bureau-supported programs that train health care professionals include diabetes-related components.

Agency officials said that diabetes programs are highly coordinated. Coordinating groups include the following:

- Diabetes Mellitus Interagency Coordinating Committee. The Department of Health and Human Services (HHS) established this committee at Congress's direction in 1974 to coordinate the diabetes mellitus activities of NIH and other federal programs with activities related to the disease and to contribute to the adequacy and technical soundness of these activities.
- National Diabetes Advisory Board. HHS established the advisory board at Congress's direction in 1976 to (1) review and evaluate a long-range plan to combat diabetes, (2) advise and make recommendations to the Congress and the appropriate federal agencies on implementing and revising the plan, and (3) maintain liaison with other advisory bodies involved with the control of diabetes.
- National Diabetes Data Group. An advisory group to NIH's National Institute of Diabetes and Digestive and Kidney Diseases, the group consists of federal, academic, and lay representatives with interests and expertise in diabetes. It has led efforts to coordinate and develop the statistical, epidemiologic, and public health aspects of disease, particularly in the diabetes research arena.[5]
- CDC's Technical Advisory Committee for Diabetes Translation and Community Control Programs.

[5]The Diabetes Data Group has no data collection capabilities and therefore does not duplicate CDC's surveillance efforts.

Breast and Cervical Cancer

Programs in breast and cervical cancer at CDC, NIH, and HRSA have different activities, targets, or purposes. CDC and HRSA both support cancer screening programs. States providing screening under CDC's program, however, are required to target women who are not covered by other programs and to provide the screening services through HRSA-funded community centers.

Distinct Activities

- CDC provides financial assistance to state public health departments for programs to detect and control breast and cervical cancer, authorized under the Breast and Cervical Cancer Mortality Prevention Act of 1990 (P.L. 101-354). States participating in CDC's program must establish surveillance systems to monitor the quality of screening programs and improve quality assurance measures for monitoring screening procedures. In making screening and follow-up services available, states must target low-income women who are not covered by other programs. The program also provides for states to deliver public and professional education programs for women on cancer detection. In 1993, CDC provided 12 states with funds to carry out breast and cervical cancer early-detection programs. CDC also provided financial assistance to an additional 18 state public health departments to build the capacity, through planning and development activities, to carry out the programs. CDC works with HRSA-funded community centers to reach low-income women.
- Most NIH work in breast and cervical cancer includes conducting and supporting basic research, such as studies of the genes involved in breast cancer, as well as research on cancer etiology and prevention (for example, a trial of tamoxifen, a hormonal agent, to prevent breast cancer in women at high risk). NIH conducts public and professional health education on breast and cervical cancer, such as developing materials and publications. Such health education activities are specifically authorized under the NIH Revitalization Act of 1993 (P.L. 103-43). Since 1973, NIH has also conducted cancer surveillance through the Surveillance, Epidemiology, and End Results Program, known as SEER, which is the primary source of data for rates on the incidence, survival, and prevalence of cancers in the United States.
- HRSA provides financial assistance to Community and Migrant Health Centers to perform clinical breast examinations and cervical cancer screening as part of their routine screening and physical examination services.

HRSA officials said that they actively coordinate with CDC's breast and cervical cancer programs. CDC and HRSA officials said that they tend to use

NIH materials, such as publications, in their public education efforts on breast and cervical cancer prevention. An HHS National Strategic Plan for Early Detection and Control of Breast and Cervical Cancers was developed by CDC, FDA, and the National Cancer Institute (NCI), with participation from HRSA and other agencies.

Immunization

Immunization activities at CDC, NIH, and HRSA are different except for one activity, financial and technical assistance. CDC and HRSA both provide funding and staff to state public health departments or community centers; however, although these activities are similar, they are not duplicative because the purposes and recipients of the support are different.

Distinct Activities

- CDC supports the surveillance of adverse reactions to vaccines through a national reporting system. It also supports demonstration projects to evaluate different approaches to raising immunization coverage or to develop new approaches to measuring immunization coverage.
- NIH conducts and supports basic research on vaccines, such as studies on the immune system, microbiology, and virology. It also supports vaccine development.
- HRSA administers the National Vaccine Injury Compensation Program, which provides no-fault compensation for injuries and adverse reactions caused by vaccines covered under the program.

Similar Activities

CDC and HRSA both provide financial and technical assistance, but these activities are not duplicative, according to our criteria, because they are conducted for different purposes and are provided to different organizations.

- CDC purchases vaccines at discount for states and provides financial assistance to state and local health departments so that they can purchase vaccines at discount. CDC also provides grants to states and cities to support the development of Immunization Action Plans (IAP) to strengthen local infrastructures for immunization. Areas of concern under these IAPs are service delivery systems, education, evaluation, assessment, and outcome measures.
- HRSA provides financial assistance to Community and Migrant Health Centers to support immunization. HRSA has an agreement with CDC to determine the vaccine needs of these centers, which also receive vaccines purchased by states under CDC's purchase contract.

- The National Vaccine Program Office (NVPO), in PHS's Office of the Assistant Secretary for Health, was established in 1986 as an amendment to the Public Health Service Act[6] to provide leadership for the nation's vaccine and immunization programs. Its charter is to coordinate and provide direction for each element of the immunization process, from vaccine development to delivery and evaluation. NVPO's current activities include
  - coordinating the President's Immunization Initiative;
  - completing a new comprehensive National Vaccine Plan, which is legislatively mandated;
  - leading the Interagency Committee on Immunization, which is composed of representatives from government departments and agencies; and
  - providing the executive secretariat and administrative support to the National Vaccine Advisory Committee, whose voting members are appointed, from outside the federal government, by the Assistant Secretary for Health in consultation with the National Academy of Sciences.

Intentional Injury

Except for community demonstration programs, agency programs on preventing and controlling violence-related injuries have different activities and emphases. CDC, NIH, and HRSA support demonstration projects on violence-related injury, but these projects are not duplicative because they have different purposes or targets, despite some common elements, such as using similar interventions.

Distinct Activities and Program Emphases

- CDC conducts surveillance, epidemiology, prevention research, and program evaluation on violence-related injuries. It provides financial and technical assistance to state health departments, for capacity building in injury prevention, and to university Injury Prevention Research Centers, for training and cross-cutting research.
  - The research that CDC conducts and supports in injury tends to be multidisciplinary, drawing upon disciplines such as biomechanics, statistics, engineering, and behavioral psychology. Although much of CDC's research is on unintentional injuries, such as car accidents and falls, CDC also conducted the first case-control study of youth suicide clusters and has evaluated the impact of the Detroit Gun Law, at the city's request, among other projects.

[6]See 42 U.S.C. 300aa-1, Public Law 99-660.

  - CDC is concerned about the outcomes of violence, meaning injury and mortality, and the agency takes an epidemiologic or population-based approach to injury.
  - The Secretary of HHS has designated CDC as the lead agency within HHS to coordinate plans and activities on the prevention of violence.
- NIH[7] emphasizes behavioral and clinical research on violence and traumatic stress and targets both perpetrators and victims of violence, minority youth, and substance abusers. NIH research takes a psychological/mental health, environmental, and biomedical approach to intentional injury.
- HRSA supports violence-related health care services targeting children and their families. It also supports health education, through publications and conferences on violence, and resource planning, through its trauma system development grants to states.
- SAMHSA emphasizes services to prevent and treat violent and intentional injuries related to substance abuse and mental health problems. It targets all age groups—youthful victims, the homeless, and the elderly.

Similar Activities

CDC, NIH, and SAMHSA all conduct or support community demonstration projects on violence-related injury, but these activities are not duplicative, according to our criteria, despite some similarities, because they have different purposes or target populations.

- CDC supports demonstration projects to
  - help communities design, implement, and evaluate multifaceted programs to prevent violence, injuries, and deaths among youth and adults in high-risk communities;
  - establish or strengthen intentional injury programs in states and localities; and
  - test violence prevention guidelines.
- NIH's NIMH has evaluation research and demonstration projects to develop, implement, and evaluate programs that address mental health problems, such as conduct disorders, and to reduce disruptive behavior disorders in high-risk adolescents. 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.

[7]Most of NIH's work on violence is supported by three institutes that are quite new to NIH—the National Institute of Mental Health (NIMH), the National Institute on Drug Abuse (NIDA), and the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Until 1992, these institutes were research components of the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA). In 1992, ADAMHA was reorganized; NIMH, NIDA, and NIAAA were reassigned to NIH; and ADAMHA was renamed the Substance Abuse and Mental Health Services Administration.

- SAMHSA supports or conducts demonstration projects in communities and through states to prevent alcohol and other drug problems by high-risk youths, including school drop-outs and gang members: projects include strategies to prevent and reduce violent and suicidal behavior. SAMHSA also supports demonstration drug treatment programs to intervene with adults and adolescents involved in the criminal justice system who are at risk for violent behavior.

In November 1991, an HHS Office of the Inspector General report found no duplication among PHS agencies in injury control. The report's goal was to determine the nature and extent of possible overlap between CDC's injury control programs and other such programs in different federal agencies. The Inspector General's report found no duplication among the specific projects reviewed.[8]

Tobacco Use Prevention and Control

In tobacco control programs, all PHS agencies share a common HHS health goal: to help people stop smoking and to prevent people from starting to smoke. With tobacco use, the same populations are at risk—adolescents, blue collar workers, and minorities. Overall, despite these and other similarities, agencies' programs in tobacco control have different activities, purposes, or targets.

Distinct Activities

CDC and NIH both work with state public health departments as focal points for organizing coalitions and developing state-level activities, such as planning and health education on tobacco control. However, there are essential differences between their programs, in activity and purpose.

- NIH's American Stop Smoking Intervention Study (ASSIST) is a large-scale 7-year demonstration project that is the culmination of NCI's tobacco control research program in the 1980s.[9] ASSIST is a collaborative effort between NCI and the American Cancer Society, along with 17 state public health departments.

[8]Injury Control, U.S. Department of Health and Human Services, Office of the Inspector General (Washington, DC: Nov. 1991).

[9]Demonstration is one of the five phases of cancer control and prevention research that precede national prevention and health services programs. As outlined in an NCI journal, Phase I is hypothesis development; phase II, methods development; phase III, controlled intervention trials; phase IV, defined population studies; and phase V, demonstration and implementation. ASSIST is considered a Phase V project in NCI's tobacco control research program. (See Peter Greenwald and Joseph Cullen, "The New Emphasis in Cancer Control," Journal of the National Cancer Institute, Vol. 74, No. 3 (March 1985), pp. 545-46.)

- NCI's purpose is to demonstrate that the wide-scale application of proven strategies can achieve specific, measurable goals in reducing the prevalence and initiation of smoking. These proven strategies are based on NCI studies from the 1980s and other smoking and behavioral research.
- ASSIST's specific goals are to reduce smoking prevalence among adults to 17 percent by 1998 and adolescents' smoking initiation by 50 percent by the year 2000.
- NIH contracts with state public health departments that have a tobacco control infrastructure sufficient to achieve ASSIST's stated goals by the end of the project.
- As a demonstration project, ASSIST has a specific beginning and end, with implementation starting in 1993 and the project ending in 1998.

- In contrast, CDC supports resource development by providing financial and technical assistance to states and regional coalitions for tobacco control.
  - CDC's purpose is to help states and regions build their infrastructure or capacity—that is, to establish and strengthen programs for long-term tobacco control and prevention. CDC's assistance is intended to support state and regional efforts toward reducing smoking prevalence and initiation, not to achieve specific levels. CDC's efforts for building state capacity in tobacco control and prevention are ongoing, not finite.
  - CDC, by contrast with NIH, works with states that lack, or have weak, tobacco control infrastructures. CDC's capacity-building cooperative agreements give priority to states in which the state health agency expended $1 million or less in fiscal year 1989 for tobacco control activities. Because NCI's ASSIST states have well-developed or well-funded tobacco control programs, they do not qualify for CDC's capacity-building program. California is also excluded for the same reason.
  - One regional tobacco control program CDC supports is the Rocky Mountain Tobacco-Free Challenge, which since 1988 has supported annual competitions among coalitions in eight states for tobacco control and prevention approaches in communities.
- There is much coordination and information-sharing between NIH and CDC about their tobacco control programs.

Similar Activities

HRSA and SAMHSA both support some tobacco prevention and cessation services through community-based programs. Despite similarities, they address different target populations and are therefore not duplicative.

- HRSA and SAMHSA fund programs that provide different populations with health services that sometimes include smoking prevention and cessation.

HRSA focuses on pregnant women, children, and child care providers, while SAMHSA targets substance abusers. The degree to which smoking cessation and prevention can be a part of the health services offered to patients is generally determined locally, by the state or community health program. Both agencies also support focused demonstration projects. SAMHSA is responsible for monitoring state compliance with the 1992 federal legislation (Synar Amendment).[10]

Environmental and Occupational Health

We examined two programs at CDC and NIH within the environmental and occupational health area: agricultural health and safety and electromagnetic field (EMF) radiation. These programs were not duplicative because the agencies have different purposes, activities, or targets.

Agricultural Health and Safety

Although CDC and NIH are both collecting health data on farm families, the agencies are conducting different activities with different purposes.

- CDC's National Institute for Occupational Safety and Health (NIOSH) is conducting surveillance, health education, and research on agricultural safety and health.[11]
  - Through its Farm Family Health and Hazard Survey, NIOSH is conducting surveillance of farm families in six states. The purpose of the survey is to collect population-based data on the incidence and prevalence of disease, injuries, and exposures to farm occupational health and safety hazards. The survey data will allow NIOSH to develop hypotheses about the causes of disease or injuries and to target interventions or further research from these data.
  - NIOSH is using nurses located in rural communities to conduct surveillance and public education for families. The goal of the surveillance is to develop more information on the types of injuries and diseases that occur among farm families.

[10]42 U.S.C. 300x-26(A)(B) (Synar Amendment, Section 1926, of the Public Health Service Act). Under this amendment, the Secretary of HHS has the authority to deny full fiscal year 1994 Substance Abuse Prevention and Treatment Block Grant awards to states that have not implemented a law, by October 1, 1993, prohibiting the sale and distribution of tobacco to anyone under age 18.

[11]The Senate Committee on Appropriations mandated that NIOSH conduct a farm family health and hazard survey. (See Senate Report 101-127 (Sept. 13, 1989), pp. 93-95.) NIOSH was established by the Occupational Safety and Health Act of 1970; in 1973, NIOSH became a part of CDC. NIOSH is responsible for conducting research and analyzing the results to prevent illness and control hazards in the workplace. NIOSH's mandate includes responding to requests for investigations of workplace hazards and conducting research on ways to control or prevent work-related health and safety problems.

- NIOSH also supports research to develop model prevention programs on agricultural safety and health, evaluate prevention programs implemented by other organizations, and to evaluate engineering and ergonomic control technology.

- NIH is conducting epidemiologic research on farm families in two states: The Agricultural Health Study is a prospective epidemiologic study, carried out by NCI, the Environmental Protection Agency, and the National Institute of Environmental Health Sciences (NIEHS). The study's purpose is to evaluate the health risks associated with agricultural chemical exposures during a 10-year period. In its initial phase, the study uses questionnaire survey data to identify the main cohort of people and to develop exposure information for the study. In prospective studies like this Agricultural Health Study, a cohort of people is carefully selected and classified by their exposures to risk factors (such as pesticides). The cohort is followed over time to determine differences in the rate at which the disease develops in relation to the exposure to the risk factor. Unlike surveys such as CDC's, this kind of study allows NIH to analyze the causes of disease: NIH's study uses an analytic design that allows it to test hypotheses and to show relationships among variables.
- CDC and NIH program officials who are conducting NIOSH's farm family survey and NCI's Agricultural Health Study reviewed detailed documentation on the projects, and they agreed with our finding that there is no duplication of activities.

Electromagnetic Field Radiation

Because of reports linking EMF with cancer during the past decade, EMF has become a public health concern. Electromagnetic fields are created by the use of electric power lines and home appliances—such as clocks, televisions, and electric blankets. The possibility of adverse health effects from exposure to EMF has generated controversy and debate in the media in the past few years. CDC and NIH have EMF radiation programs, but no duplication exists because the programs have different targets and purposes.

- CDC, through NIOSH, studies the impact of EMF on workers only. NIOSH conducts surveillance of workers' exposure to EMF as well as worksite inspections on request. In January 1991, NIOSH convened a scientific workshop on EMF's health effects on workers to begin developing a national research strategy on EMF.
- NIH studies EMF's effects on the general public, especially children. NIH's purposes are to study the development of cancer at the molecular and

cellular levels and to determine human health effects, using animal studies.[12]

- CDC's NIOSH and NIH's NIEHS and NCI are collaborating on EMF research.

[12]The Energy Policy Act of 1992 (P.L. 102-486) specifically charged the Secretary of HHS and the Director of NIEHS, NIH, with responsibilities for programs of research and public information dissemination on EMF.

CDC's Program Activities Are Supported by Legislation, History, and Public Health Experts' Opinions

From fiscal years 1987 to 1992, CDC's annual appropriations rose about $1 billion. During the same period, the Congress authorized a 40.3-percent increase in CDC's full-time equivalent staff. Out of concern about expansions in CDC's funding and staff along with a broadened scope of CDC's programs and activities, the House Committee on Appropriations directed that we evaluate the appropriateness of CDC's programs in three areas—chronic diseases, intentional injury, and the funding of health services.

We determined that CDC's activities are appropriate in light of its mission. CDC's activities in preventing and controlling chronic diseases and intentional injury and funding health services are supported by legislation, history, diversity of staff, and the judgments of public health experts. CDC's mission is to prevent and control disease, injury, and disability. This mission is consistent with the agency's legislative authority to conduct or support prevention and control programs in diabetes, breast and cervical cancer, and injury. CDC furthermore has a history of program activities in chronic disease and intentional injury as well as long-term relationships with state health departments, which are responsible for implementing public health programs for the American people. Most public health experts we interviewed recognize CDC as the federal government's leading agency in the prevention and control of disease and injury and support CDC's activities in these program areas as part of its mission.

In August 1993, we reported on CDC's legislative authorities, its historical roles, and its staff and relationships with state public health departments. We also provided the views of public health experts about CDC's involvement in chronic disease, intentional injury, and funding of services, such as breast and cervical cancer screening.[1] A summary of our findings follows.

Legislative Authority

- Legislative authority establishes the basis for CDC's programs in chronic diseases and intentional injury.
  - CDC has broad legislative authority to protect the health of Americans.
  - Initially, CDC was authorized to control communicable diseases.
  - In the 1970s, legislation expanded CDC's programs beyond communicable diseases to include disease control programs for a broad range of health conditions, including programs to encourage behavior that would prevent diseases.

[1]Correspondence on CDC's Mission and Duplication in PHS (GAO/HRD-93-32R, Aug. 30, 1993).

- CDC's programs in diabetes and breast and cervical cancer are specifically authorized by law.
  - In 1976, CDC was charged with developing diabetes control programs under the Disease Control Amendments of 1976 (P.L. 94-317).
  - The Breast and Cervical Cancer Mortality Prevention Act of 1990 authorizes CDC to provide funding to states for the early detection and control of these cancers.
- Programs on injury control and prevention are also legislatively authorized under the Injury Prevention Act of 1986. In 1992, congressional committee reports specifically requested that CDC emphasize violence-related injuries in its program.

CDC's Program History

- CDC's programs in chronic disease, health services, and violence-related injury reflect CDC's evolving public health role.
  - Threats to public health have evolved over time, and CDC's programs and activities have changed accordingly. Epidemiology shows the way—morbidity and mortality data define the threats.
- CDC began to include chronic diseases in its programs in the early 1970s.
  - CDC began a nutrition program as well as birth defects surveillance in 1970.
  - Tobacco control was moved to CDC in 1972, with the assignment of the Office on Smoking and Health to the agency.
  - Cancer was included in CDC's programs in 1975.
  - CDC reorganized in 1980 to better carry out work in chronic diseases, environmental health, and life-style issues.
- CDC supported health services for the public in the 1960s when it awarded grants to states for vaccination programs against polio. In the 1980s, CDC supported demonstration programs on breast and cervical cancer to identify barriers to screening.
- CDC began work on violence-related injury in the early 1980s.
  - In 1981, CDC improved its surveillance program to include child abuse, homicide, and other forms of violence, and in 1983 CDC established a violence epidemiology branch to study various forms of violence.
  - In 1985, the National Academy of Sciences cited intentional injury as a public health problem in its report, Injury in America: A Continuing Public Health Problem. The Academy also recommended that a Center for Injury Control be established at CDC.

CDC's Organizational Capacity

- CDC's diversified staff and relationships with states are suited to preventing and controlling diseases and injuries.
  - CDC has a multidisciplinary technical staff that includes medical officers, epidemiologists, and behavioral health scientists. It also has staff in regional field offices and state public health departments.
  - CDC has long-time, established working relationships with state and local public health departments, which is where many public health programs are implemented.
  - About 75 percent of CDC's funds go to state and local health departments to support public health programs. States also can request technical assistance in lieu of grant funds.

Public Health Experts' Opinions

- Public health experts support CDC's activities in preventing and controlling chronic diseases and violence-related injury as part of the agency's mission to protect the health of all Americans. Many of the public health experts we interviewed agreed on the following:
  - CDC is the leading prevention agency in the PHS.
  - CDC's work in chronic disease and violence-related injury is appropriate because its activities in these areas are a logical extension of population-based surveillance and epidemiology. CDC's programs respond to pressing public health problems, which are defined through surveillance and epidemiology.
  - CDC's relationships with state and local health departments are important in translating research into public health practice.

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