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Health Policies for the 21st Century: Challenges and Recomendations for the U.S. Department of Health and Human Services

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September 2001

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Foreword

The Fund normally discourages authors from expressing opinions in its reports. But Jo Ivey Boufford and Philip R. Lee are specially qualified to analyze and judge the effectiveness of the federal government in carrying out its responsibilities for health during the past generation. Their report is based on personal experience as policymakers, interviews, careful reading of both official documents and scholarly publications, and consideration of the views of numerous reviewers and members of an advisory group convened by the Fund.

The authors began this report in order to inform policymakers in a new administration who would decide whether and how to reorganize federal agencies that have responsibility for health. Their most important recommendation is that changes in organization and management should implement a significant change in the purposes of health policy.

Boufford and Lee believe that policy should accord higher priority to improving the health of the population and the subpopulations that comprise it. Higher priority for population health requires research, services, and changes in law and regulation to address the environmental and socioeconomic causes of health and illness. At the same time, the federal government should expand current programs to prevent, diagnose, and treat disease.

Persons who assisted in the preparation of this report are listed in the Acknowledgments.

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Acknowledgements

The following persons participated in meetings and/or reviewed this report in draft. They are listed in the positions they held at the time of their participation.

Key to Abbreviations

AHRQ	Agency for Healthcare Research and Quality
ASH/SG	Assistant Secretary for Health/Surgeon General
ASTHO	Association of State and Territorial Health Officers
ATSDR	Agency for Toxic Substances and Disease Registry
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare & Medicaid Services (formerly known as the Health Care Financing Administration, or HCFA)
DHHS	U.S. Department of Health and Human Services
DOD	U.S. Department of Defense
EPA	Environmental Protection Agency
FDA	Food and Drug Administration
HCFA	Health Care Financing Administration (renamed the Centers for Medicare & Medicaid Services [CMS] in June 2001
HEW	U.S. Department of Health, Education and Welfare (former name of DHHS)
HICDA	Health Information, Communication, and Data Agency
HRSA	Health Resources and Services Administratio
HUD	U.S. Department of Housing and Urban Development
IHS	Indian Health Service
IOM	Institute of Medicine
INS	Immigration and Naturalization Service
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
NACCHO	National Association of City and County Health Officials
NASA	National Aeronautics and Space Administration
NCHS	National Center for Health Statistics
NCVHS	National Committee on Vital and Health Statistics
NHII	National Health Information Infrastructure
NHTSA	National Highway Traffic Safety Administration
NIH	National Institutes of Health

NLM	National Library of Medicine
NSC	Nathional Security Council
OASH	Office of the Assistant Secretary for Health
OECD	Organisation for Economic Co-operation and Development
OIRH	Office of International and Refugee Health
OMB	Office of Management and Budget
ONDP	Office of National Drug Policy
OPHS	Office of Public Health and Science
OSTP	Office of Science and Technology Policy
PHS	Public Health Service (part of DHHS; includes AHRQ, CDC and ATSDR, FDA, HRSA, IHS, NIH, SAMHSA)
REGO	Reinventing Government
SAMHSA	Substance Abuse and Mental Health Services Administration
SCHIP	State Children's Health Insurance Program
SSA	Social Security Administration
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
VA	U.S. Department of Veterans Affairs
WHO	Wold Health Organization

Executive Summary

This report recommends a comprehensive reassessment of federal health policies, programs, and processes, including federal-state roles and relationships, and some immediate actions to promote and protect the nation's health and to provide leadership in world health. The report concentrates on the challenges facing the secretary of the U.S. Department of Health and Human Services (DHHS) as the head of the lead health agency in the federal government. The federal government is responsible for five main functions related to health policy: financing; public health protection; collecting and disseminating information about U.S. health and health care delivery systems; capacity building for population health; and direct management of services.

Unlike the current categorical, or highly specialized, approach leading to policies and programs addressing the needs of a specific population, illness, or organizational constituency, a new, comprehensive approach to policy for the 21st century should promote coordinated efforts across programs in order to achieve three goals:

- create conditions that lead to longer, healthier lives for all Americans;
- eliminate health disparities;
- protect communities from avoidable health hazards and help them to address their own health problems.

What Are the Health Policy and Management Challenges

Present federal policy, which emphasizes the financing of personal health care services and biomedical research, has created the world's most technically sophisticated personal health care system and the world's strongest biomedical research enterprise. We should celebrate these successes but accept the fact that health care and biomedical research cannot alone meet the national and international health challenges of the future. Although the United States spends more money on personal health care than any other country in the world, it met only about 15 percent of the health objectives set in *Healthy People 2000*. For about 20 percent of the other objectives, U.S. health actually deteriorated.

These are the key challenges:

- Applying the growing body of knowledge about the multiple determinants of the health of populations to federal and state policies and programs.
- Continuing to support science and technology, including biomedical research, social and behavioral sciences, health services research, and computer and information sciences.
- Developing the potential of the National Health Information Infrastructure (NHII), to disseminate information and improve the quality and safety of health care.
- Responding to the changing nature of U.S. health problems, including the rise in chronic illness; high-risk behavior like substance abuse and violence; environmental health hazards; the increasing age and diversity of the population; and the growing disparities in health related to gender, race, ethnicity, and socioeconomic status.
- Responding to pressing international health issues that have domestic implications as people, food, products, diseases, and environmental hazards move across national borders faster than ever. Global markets increasingly determine the safety of food and the availability, quality, and cost of pharmaceuticals, blood, and medical devices.
- Dealing with problems in the personal health care system, including rising costs, more than 40 million uninsured Americans, medical errors, and the failure to date of managed care to promote health or to effectively finance coordinated care.
- Coordinating the fragmented federal health programs, which are scattered across more than 40 departments and agencies and are fragmented even within the DHHS itself.
- Addressing state and local problems created by the proliferation of federal policies and programs that deal with specific diseases, services, populations, providers, and locations. These categorical programs do not foster efficient federal-state links or involve local government and community-based organizations in making policy decisions that will affect them.

Both medical care and public health can be significantly improved if policies to address these challenges are put in place.

Current Impediments to Effective Federal Action

Impediments to effective federal action include inadequate data, divided responsibilities, inadequate management, and fragmented authority for international health policy.

Inadequate data impede the federal government's ability to measure the results of many of its expenditures and the performance of its programs. The public health infrastructure—the professionals, clinical laboratories, broad-based information systems, research capabilities, and government and private-sector organizations—is inadequate at the local, state, and federal levels. That infrastructure is vital for assessing risks, detecting disease, and monitoring environmental conditions that affect population health, such as waste disposal and water and air quality.

Divided responsibilities in Washington create and reinforce overlapping and competing jurisdictions in state and local governments and among myriad private-sector stakeholders. Federal health-related agencies lack effective working relationships that cross organizational boundaries and make possible effective coordination of either the work of federal, state, and local agencies or collaboration of public agencies with the corporate sector and community-based organizations.

Within the DHHS there is inadequate coordination of the agencies of the Public Health Service (PHS). [*]—The department also needs more knowledge of the challenges facing its stakeholders, especially

nongovernmental organizations, advocacy groups, grantees, and business groups as they work to promote health.

Although the United States is the world's superpower in science and medicine, its current approach to international health policy is disjointed and crisis-oriented. Authority for international health issues is split among various departments and agencies, making coordination of U.S. policymaking difficult. Because of the fragmentation of health authority at the national level, no single federal agency can lead the government toward a cooperative, communicative, comprehensive health policy without a clear mandate from the president.

Changing the Focus

Federal health policy has accorded priority to science and services to treat the diseases of the individual, what many call a biomedical model. This model is slowly changing to one that focuses on population health, a model that is shaped by evidence about the multiple determinants of health and their effects on the health of the whole population, including—in addition to medical care—behavior, biology, physical and social environment, education, socioeconomic status, employment, and housing. A new health policy would build on the strengths of the biomedical model.

Five Areas for Action

This report recommends five areas of action:

1. Financing personal health care and research in ways that emphasize prevention, patient safety, and a population health perspective.
2. Making sustained investment in the nation's public health infrastructure.
3. Increasing access to health information.
4. Offering incentives for partnerships between communities and government to improve health.
5. Strengthening the capacity of government to manage the promotion and protection of health by reducing fragmentation within the federal government and improving coordination and collaboration across government.

The United States must also strengthen existing health-related public policies. We must continue to build the nation's economic strength and provide opportunity, while protecting the most vulnerable. It is important to strengthen the educational system, with a particular focus on early childhood development, education for women, and general literacy. We must continue incremental efforts to assure access to safe, high-quality health care for all Americans. Finally, the federal government should continue investing in biomedical and public health research and add significant investments in research on prevention, on understanding the multiple determinants of health, and on methods for translating new knowledge into practical application.

These actions can make the United States one of the healthiest nations on earth and the leader in promoting global health. This country should seize opportunities to improve health at home and abroad by fresh policy and adequate investment in implementing, coordinating, and sustaining it.

Author's Preface

We hope that this report will stimulate review and revision of federal health policy that will improve personal and community health throughout the United States. To understand the history of the role of the executive branch of the federal government in health, we examined the development of federal health policies and programs, particularly since the Public Health Service Act of 1944. We also analyzed the reorganization of

the Department of Health and Human Services (DHHS) since 1995. As a result, we identified key obstacles to a more comprehensive health policy. Then we developed proposals for organizational and management changes within the federal executive branch, especially at the DHHS.

We present our ideas in three sections: Health Policy Challenges for the New Century, Impediments to Effective Federal Action, and Toward More Effective Federal Action. We also wrote two detailed supplementary documents, "The Federal Health Function and How It Developed" and "Reinventing the DHHS 1993-2000"; portions of them have been included in this report.

Changing health policy will be challenging. Federal fragmentation and categorical (that is, disease- or target-group-specific) programs are often repeated at the state and local levels. Multiple entities, sometimes created expressly to receive federal program dollars, have become increasingly isolated from each other and from the community organizations that seek to meet local needs. Some of these challenges are being addressed through better coordination and communication within one level of government; between levels of government; and among government, the private sector, and communities. But the new administration and those that follow it must develop, implement, and sustain policy that encourages these fledgling efforts. Health policies must become "community friendly," as John W. Gardner, former secretary of Health, Education, and Welfare, said in a conversation about this report.

We have experienced the current, frustrating reality as former senior officials in the DHHS and in our respective state and local governments and the private sector. We have also seen the enormous opportunities, and we know that committed individuals and organizations inside and outside of government can seize these opportunities for constructive change. This will be a long-term effort. Unless we begin to assure the highest possible level of individual and community health and health care across the country, we will jeopardize recent health gains. The United States can become the healthiest nation on earth. The goal is certainly worth the effort.

Health Policies for the New Century

The nation faces new health policy challenges that cannot be met without going beyond the current preoccupation with the financing of personal health care and biomedical research that have resulted in a system of medical care and public health designed for another era. Some of these challenges are global, for instance the spread of infectious diseases and epidemics, like HIV/AIDS, and the threat of bioterrorism. Others are domestic, including increased chronic disease and disability, violence, substance abuse, and mental illness. Our increasingly diverse population suffers huge disparities in health, which are related to differences in race, gender, ethnicity, and socioeconomic status. Advances in research have resulted in more information than ever before about the effects on health of individual behavior, socioeconomic factors, the work environment, environmental toxins, and the presence or absence of community support. Solving these problems requires action on issues that are not commonly thought of as health-related such as the economy, education, housing, transportation, and agriculture.

The United States spends more for health care than any other country in the world. But the results are not apparent either in Americans' satisfaction with their health care system or in their health. Results are unsatisfactory in infant survival, the length and quality of life, and access to health care, particularly for poor people, and communities of color. The United States has met only about 15 percent of the objectives set by *Healthy People 2000*. While progress has been made toward the objectives in another 44 percent, Americans' health has actually deteriorated for about 20 percent of the objectives (e.g., obesity, physical activity, cigarette use among adolescents) (NCHS 1997, p. 2).

High spending for health care has not produced better health because personal health care is not the major influence on health. McGinnis and Foege (1993) estimated that only 10 percent of avoidable mortality in the United States is directly related to lack of access to medical care. While Bunker put the figure closer to 30 percent, he attributed much of this to clinical preventive services, such as immunization, screening for the early detection of cancer (e.g., Pap smears for cervical cancer), and early treatment of hypertension (Bunker 1995). Half of premature mortality is related to risky behavior like cigarette smoking, alcohol abuse, lack of

exercise, poor diet, and substance abuse. These, in turn, are closely related to factors such as socioeconomic status, education, and the availability of social supports in the community (Wilkinson 1997; Evans, Barer, and Marmor 1994). Other research has suggested that the grave inequalities in health are related to socioeconomic status, gender, race, and ethnicity (Marmot, Bobak, and Smith 1995; DHHS 2000b; Wilkinson 1997; Adler, Boyce, Chesney, et al. 1994).

The *World Health Report 2000,* issued by the World Health Organization, ranked the U.S. health system's overall performance 37th in the world and 24th on overall health attainment. Although most of the 191 countries studied have criticized this report, the United States trailed all of the other G-7 countries (France, Germany, Japan, Canada, Italy, and the United Kingdom) (WHO 2000). An analysis of the health systems in the 29 countries in the Organisation for Economic Co-operation and Development (OECD), the world's leading economies, shows the U.S. system to be the most expensive—accounting for 14.2 percent of our gross domestic product. Yet that system is also one of the least accessible financially. Moreover, the United States ranks 23rd in infant mortality and 21st in male life expectancy. It is unlikely that the United States would tolerate such a poor standing in trade or defense; we should not tolerate it in health.

Since the late 19th century, U.S. health policies have been based on the germ theory and then on its expansion into a biomedical model, which emphasizes biomedical research, personal medical care, and prevention programs related to specific diseases. These policies developed piecemeal, as policymakers accorded priority, at different times, to financing medical care or providing medical services for particular groups; to building, expanding, or modernizing hospitals; to supporting health professional education; and to funding and conducting biomedical research.

Lower priority public health policies have funded a growing number of categorical grants to states and local communities, to nonprofit institutions and organizations, and to universities and professional schools. Funds have been provided to hundreds of organizations concerned with specific health problems (e.g., sexually transmitted diseases, tuberculosis, HIV/AIDS, diabetes, cancer, substance abuse) and have supported specific services (e.g., immunization, prescription drugs for persons with HIV/AIDS). There are more than 300 domestic grant-in-aid programs for health and social services in the DHHS alone (PHS 1993). Federal regulation has also increased food and drug safety and addressed environmental conditions (e.g., air pollution control, occupational health and safety, and highway safety).

Although these policies and programs created the world's strongest biomedical research enterprise and most technically sophisticated personal health care system, they do not adequately address the contemporary health challenges that we have described. These challenges require federal health policymakers to:

- Apply the growing body of knowledge that individual behavior, biology, the environment, and socioeconomics affect health.
- Continue to support advances in science and technology, including the biomedical, social, and behavioral sciences, and health sciences research, as well as computer and information science.
- Use information systems, the Internet, the World Wide Web, and the National Health Information Infrastructure (NHII) to circulate information that can improve community health, individual health, patient safety, and health care quality.
- Respond to the changing nature of U.S. health problems, whether demographic, environmental, behavioral, or socioeconomic, and the growing disparities in the health of different segments of the population.
- Deal promptly with the unresolved problems of rising health care costs, uninsured people, the quality of medical care and patient safety, and the failure to date of managed care to promote health and effectively coordinate health care.
- Organize the fragmented federal health functions, which are now scattered among more than 40 departments and agencies, and reducing fragmentation within the DHHS itself.
- Solve the state and local problems created by the proliferation of uncoordinated programs designed for specific diseases, specific services, specific populations, specific providers, and specific locations.
- Recognize that global health issues increasingly affect the U.S. population.

Although personal health services affect health, other factors have been more important in improving Americans' health during the twentieth century, notably better nutrition and housing, cleaner water, improved waste disposal, and improvements in food safety and pest control. In addition, the sharp decline in infant mortality and in deaths from infectious diseases as a result of personal and public health strategies have

been especially significant. One of the first noteworthy efforts to apply knowledge of the multiple determinants of health to policy was A *New Perspective of the Health of Canadians* (Lalonde and Department of National Health and Welfare 1975). The report proposed the "health field concept" based on four major determinants: human biology, lifestyle, environment, and health care.

The first U.S. effort to look at the broader determinants of health was the *Surgeon General's Report on Health Promotion and Disease Prevention* (1979). Its publication has led to *Healthy People* reports setting goals for 1990, 2000, and 2010. The latest report in this series, *Healthy People 2010,* stresses the determinants of health, particularly the goal of eliminating health disparities (DHHS 2000b). Another major federal publication in this vein was *Health, United States, with Socioeconomic Status and Health Chart Book*(NCHS 1998), which describes socioeconomic status, income inequality, and health. These documents are the first steps toward what we believe should be a fundamental shift in the basis for U.S. health policy.

Impediments to Effective Federal Action

To improve the nation's health, Congress and the federal executive branch should broaden health policy action in three areas. First, policy should take account of multiple influences upon the health of communities and populations. Second, federal policies should provide resources with which states and localities can act, but not dictate those actions. Third, policy should stimulate cohesiveness within and among federal departments in order to enhance the organizational ability of the federal government to work with the nonprofit and corporate sector as well as state and local government. This section describes the health policymaking process in general and barriers to effective action in carrying out the major health functions of the federal government: financing, public health protection, collecting and disseminating information, capacity building for population health (developing the information systems, workforce, and organizational capabilities to prevent and detect disease and promote healthy behavior), and direct management of services.

Policymaking

Policymaking involves the executive and legislative branches, a variety of influential stakeholders outside the government, and, at times, the judicial branch. The DHHS, as the federal government's lead health agency, is charged with initiating or shaping, then implementing and monitoring the legislation that Congress passes and the president signs. The department does this while working with the White House and consulting with Congress, state governments, regulated industries, beneficiaries, providers, and other interest groups.

Multiple health-related entities in the Executive Office of the President frequently play a role in health policy. These include the Office of Management and Budget (OMB), the Council of Economic Advisers, the Council on Environmental Quality, the National Security Council (NSC), the Office of Science and Technology Policy, the Office of National Drug Policy, the Office of Policy Development (which is composed of the Domestic Policy Council and the National Economic Council), and the Office of the U.S. Trade Representative.

Each administration brings its own approach to policymaking. President Clinton, for example, preferred to lead high-profile efforts from the White House. The 1993 health care reform legislation was largely developed within White House task forces, with the DHHS providing the analysis and policy advice. Beginning in 1996, President Clinton designated a senior health adviser, who was a deputy director of the Domestic Policy Council, to serve as liaison with cabinet agencies and coordinate health policy efforts among White House entities, the DHHS, and other cabinet offices. President Clinton also used the vehicle of executive orders; for example, to establish the President's Commission on Quality and Consumer Protection in the Health Care Industry, and to order federal agencies to implement the patients' bill of rights, recommended by that commission.

In the 1990s and particularly after Republicans gained control of the House and Senate in 1994, most policymaking occurred during budget reconciliation, the annual process when the president and the

executive departments justify their proposed budgets to Congress. Congress also exercises policymaking power through oversight and appropriations. Committees decide whether to propose new legislation, to continue or change existing health programs, and how much money to allocate to them. Lobbyists influence each step in the legislative process. Multiple House and Senate committees have jurisdiction over DHHS programs. Still other committees oversee health programs in other departments. These overlapping and competing jurisdictions increase administrative fragmentation and overly specific programming.

Policy can also be made through initiatives emerging from a department's overall mission rather than from specific legislation. A notable example is the DHHS program for setting national health goals, called Healthy People, which began in 1977 and, now, in a basic conceptual shift, stresses the broad determinants of health and the elimination of health disparities. The Healthy People program now involves all DHHS operating divisions and a number of other federal departments. It includes partnerships with state and local public health officials and with more than 350 national membership organizations, nongovernmental organizations, corporate sponsors, and and hundreds of community coalitions. Forty-seven of the 50 states have published their own Healthy People objectives. Such a broadly inclusive approach is, however, the exception.

The United States has a unique role in international health policy. Self-interest requires us to protect our people from diseases not normally seen in this country, eating contaminated imported food, and consuming or using ineffective or harmful medicines or products from other countries. As the world's superpower in science and medicine, we have the chance to lead in building international agreements for capacity to improve world health. A global role is also consistent with our history of promoting democracy, humanitarian action, and economic development around the world.

Our current disjointed, crisis-oriented approach to international health policy limits our ability to lead. The Department of State, the primary U.S. agency in international affairs, relies on the DHHS for health expertise. DHHS, through its Office of International and Refugee Health (OIRH) within the Office of Public Health and Science (OPHS), tries to coordinate a wide range of international health activities within virtually all PHS operating divisions. The OIRH also deals with health-related United Nations agencies, like the World Health Organization and UNICEF. In addition, the OIRH provides staff for the secretary of DHHS on bilateral and multilateral health activities, which are part of the agenda of the Organisation for Economic Co-operation and Development and the G-8 summits. Those activities have increased in recent years, as many other countries have come to recognize the importance of health to their national development and as the growing threats of infectious disease, bioterrorism, environmental degradation, and epidemics like HIV/AIDS have attracted attention from the public and policymakers.

The State Department pays U.S. membership dues in international agencies, but funding for international health activities comes largely from annual congressional appropriations to the Agency for International Development (USAID), an independent agency. Health funds are a very small part of the USAID budget. Congress largely earmarks these funds for family planning, infectious disease, and HIV/AIDS. The DHHS has limited authority for international spending and only in specific areas that Congress approves, such as peer-reviewed research at the National Institutes of Health (NIH), a few public health programs of the Centers for Disease Control and Prevention (CDC) concerning polio and HIV/AIDS, and FDA regulatory activities relating to imported food and drugs. This divided authority makes it very difficult to develop coherent international health policy.

Financing

The financing of personal health care is the dominant financial lever available to the DHHS and therefore consumes most policy and programmatic attention—and 98 percent of federal health funding—even though lack of access to health care probably causes only about 10 percent of the avoidable mortality in the United States (McGinnis and Foege 1993). The combined FY2000 federal budgets of Medicare and Medicaid exceeded $370 billion. These two programs along with the health care expenditures of the Departments of Defense (DOD) and Veterans Affairs (VA) and insurance for federal employees represent about half of the $1 trillion spent annually for health care in the United States.

Other, discretionary DHHS programs support direct services to populations judged to be at risk. The Indian Health Service (IHS) is the major provider of personal health care and public health services on reservations and in Alaska native villages for more than 1.5 million Native Americans. Prevention and treatment services for drug abusers and the mentally ill come through the Substance Abuse and Mental Health Services

Administration (SAMHSA); the Health Resources and Services Administration (HRSA) funds maternal and child health services, care through grants to community centers, and care for people with HIV/AIDS through Ryan White grants. CDC provides categorical grants in aid to states for specific programs for prevention and treatment of HIV/AIDS, tuberculosis, and sexually transmitted and chronic diseases.

Research is the other major focus for federal financing. The NIH spends about 40 percent (almost $20 billion for FY2000) of the DHHS's total discretionary budget ($49 billion in FY2000) for biomedical research and training. Most of this is awarded as competitive grants to researchers at academic health centers and independent research institutes. These funds have also developed laboratory and university research facilities and fellowships and training grants. The CDC and FDA support biomedical research on a smaller scale. Health services research is supported by the Agency for Healthcare Research and Quality (AHRQ), HRSA, SAMHSA, and the Centers for Medicare & Medicaid Services (CMS, known until June 2001 as the Health Care Financing Administration, or HCFA).

The way that federal money is distributed also affects its impact. DHHS non-research discretionary funding is allocated through block, program, formula, and categorical grants to states and nongovernmental entities. Although formula and block grants provide considerable discretion to states, they have been difficult to modify when the demographics of affected populations change. The political process often prevents formula revisions that would cut funds to significant numbers of states, even if revisions would better target the funding to improve the health of needier populations in other geographic areas. Block grants can include incentives to increase administrative efficiency and integration of programs. Although in external reviews, the grants were not found to replace state funds (Office of the Inspector General 1994), the greatest accountability for policy outcomes occurs when local officials or an active local constituency or advocacy groups monitor whether funds actually reached the designated areas of need.

Categorical grants restrict recipients' discretion and potentially provide for greater accountability; they also add administrative cost and complexity and may worsen fragmented program management and service delivery. Moreover, because of federal prohibitions on mixing of funds, categorical grants may require state and local governments to create multiple units to receive them; funding through these so-called stovepipes often produces gaps among services, and the units become insulated and isolated from each other. Finally, categorical grants are difficult to modify in response to changes at the local level.

Measuring the effectiveness of any grant is difficult. DHHS has more than 300 programs and thousands of grantees but relatively few staff members to monitor performance. Collating results and translating them into tools that can be used for policymaking is even harder. Moreover, block grants are particularly hard to monitor because of federal-state conflicts over data collection requirements and inadequate federal investment in evaluation by neutral experts.

In 1996, the PHS Performance Partnerships Program was proposed in new authorizing legislation with incentives to consolidate 108 activities into 16 grant categories across three agencies—SAMHSA, HRSA, and CDC-ATSDR. Despite a national consultation process involving hundreds of stakeholders, opposition to such a change by national associations, legislators, and some staff in the affected agencies could not be overcome.

Public Health Protection

Protection, a classic federal health function, is the process of assessing risks, setting standards to protect the public from these risks, and then issuing regulations to implement the standards. Special management attention, however, is necessary to develop and sustain productive working relationships, especially to harmonize regulations, within DHHS, with other federal departments, and with state and local governments.

Risk assessment—estimating the likelihood of adverse human health effects from exposure to specified health hazards (like drugs, pesticides, and medical devices) or the lack of claimed benefits (food additives or alternative therapies)—is a major DHHS activity. A comprehensive review of department-wide risk assessment activities gave high ratings to individual agency activities, but it called for more consistent procedures to determine risks, better communications among agencies and across government, and better public information so that Americans are neither confused nor apathetic about health risks (Task Force on Health Risk Assessment 1986).

These risk assessments use scientific evidence that leads, in turn, to federal standard setting and regulation

in four areas. First, DHHS certifies health care providers or, in the case of hospitals, allows them to meet the standards of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) instead of undergoing a separate federal survey in order to receive Medicare funds. Second, the federal government, in collaboration with the states, establishes criteria for the financial viability of health plans and insurance entities and certifies those that meet them. Third, DHHS sets federal standards for age-appropriate preventive health schedules; immunization schedules; acceptable quality for health care providers seeking to receive Medicare payments; clean water and air and workplace safety; and campaigns, based on research, to inform the public on issues like exercise, diet, and tobacco. Fourth, DHHS issues regulations regarding the quality of foods and the safety and efficacy of drugs, medical devices, and biologics like blood products and tissues.

The principal DHHS regulatory agencies are the FDA for drugs, biologics, medical devices, and certain foods; the CDC for laboratories; and CMS (HCFA) for health care providers. Other departments and agencies also regulate to protect health. The Department of Agriculture (USDA) regulates the safety of meat, poultry, and eggs. The Environmental Protection Agency (EPA) regulates air and water pollution, pesticides, and toxic wastes. The Department of Energy oversees radiation-related environmental management, environmental safety and health, and civilian radioactive waste management. The Department of Labor regulates occupational health and safety and self-insured employee benefit plans. The Department of Transportation (DOT) sets and monitors standards for highway safety. The Bureau of Alcohol, Tobacco, and Firearms in the Treasury, the Consumer Product Safety Commission, the Federal Trade Commission, and the Occupational Safety and Health Review Commission also issue regulations that protect against health risks.

There are major obstacles to the effective use of DHHS regulatory and standard-setting powers. Inconsistencies within DHHS agencies whose jurisdictions overlap can lead to public confusion regarding subjects like vaccines. Inconsistencies also occur among DHHS agencies and other science-based regulatory agencies, like EPA, on hazard levels for human health in comparison with levels for the health of animals and vegetation. These issues are usually addressed case by case, through work groups or crisis management. In some instances, interagency task forces, such as the Presidential Commission on Food Safety, bring agencies together to develop a consensus on long-term management of a joint initiative.

A final challenge in protecting the public's health is the integration of federal standards and regulations with those of health and health-related agencies of state and local government. The president's food safety initiative in the last three years of the Clinton administration attempted to address this challenge by bringing together the major regulatory agencies (e.g., USDA, FDA, EPA) and research agencies (e.g., CDC, NIH) to more effectively coordinate policies and actions. The EPA and ATSDR have developed models for working directly with state and local governments on environmental standards and removal of toxic waste, particularly in areas affecting poor communities at high risk.

Collecting and Disseminating Information

The federal government collects and disseminates a vast amount of information about America's health and health care delivery. The U.S. Census, in the Department of Commerce, has the most basic data-collection responsibilities. The primary federal agency collecting and reporting health information is the National Center for Health Statistics (NCHS) within the CDC. CMS tracks spending for health care. Unfortunately, many of the indicators of health and health spending that people at the local level want are not measured by the states or the federal government. Moreover, data that are collected are commonly aggregated at the national or state level and therefore cannot be used in communities.

The department has internal problems in collecting data. The DHHS has identified 212 separate departmental data systems, making it difficult to compare results, even among programs aiming at the same problem in a single community. Moreover, three-fourths of the department's data collection focuses on a small percentage of the factors affecting health. Less than 5 percent of resources are allocated to collecting data about human services. About 20 percent track behavioral and environmental influences upon health; but these are heavily concentrated in the area of nutrition. The remaining 75 percent of the department's data collection addresses infectious agents, specific diseases, and medical treatments (PHS 1993).

During the "reinvention of government" (REGO) process conducted between 1993 and 1996, a Data Council formed within DHHS attempted to standardize data collection across the department, cut redundancy in expensive studies, and assure data collection on smaller populations at particular risk. The Council met

tremendous resistance to its efforts to integrate surveys and standardize and connect data systems.

Considerable progress has been made since then. The National Committee on Vital and Health Statistics (NCVHS, the key external advisory body to the secretary on data activities throughout DHHS) has expanded its membership to include additional stakeholders in the department's data systems. Working with the DHHS Data Council and the NCHS, and through broad national consultations, the NCVHS issued a plan to "provide the information needed to enable the American public to achieve and maintain the best possible health" (NCVHS 2000a). Moreover, the NCVHS outline of principles of health statistics for the future includes a new concept based on the multiple determinants of health.

Quantitative as well as qualitative data are also critically needed to measure the effectiveness of DHHS programs and investments. In its Justification of Estimates for Appropriations Committees, the DHHS points out that "partnership in administration [especially with state and local agencies, tribes, universities, and fiscal intermediaries] is the central and fundamental management approach for program implementation and service delivery" (DHHS 2000a, p. 40). Managing these partnerships requires enormous amounts of data.

These problems are complicated by problems of coordination with entities outside the department. It is hard to agree on data definition with external partners. Moreover, the burden of reporting data often leads partners to delay reports or refuse to collaborate at all. OMB regulations, which restrict the use of data collected from third parties, further limit the department's ability to track its funding and program performance. Performance measurement is done by each agency, with only slight internal and external collaboration to develop analytic frameworks for evaluating categorical grant programs (DHHS 2000a, p. 60).

In the past, the department could allocate 1 percent of the discretionary budget of the PHS to evaluation of its programs. In recent years, however, Congress has allocated some of these funds to the AHRQ, instead of making new appropriations for that agency. Other diversions of the "1 percent money" within the department, to pay for special studies and surveys, have greatly reduced the department's capacity to evaluate its basic public health programs, some of which spend hundreds of millions of dollars each year.

Government-supported information technology (IT) regarding health programs is poorly developed (Shortliffe, Bleich, Caine, et al. 1996). While the National Library of Medicine at the NIH has developed IT in biomedical research, the DHHS has not defined its own data needs or the needs of the nation's health care delivery or public health system. Moreover, the DHHS has not aggressively sought the resources with which to develop the systems, unlike such agencies as NASA and the Departments of Defense and Energy.

Capacity Building for Population Health

Public Health Infrastructure

The purpose of the capacity building function of the federal government is to ensure that its agencies, as well as state and local health agencies and tribal governments, have sufficient people, money, equipment, research capacity, and organization to promote health. The major federal investments in capacity building for health have not systematically funded this public health infrastructure. Most investments have instead supported research, human resources development, and the construction of facilities for personal health care and biomedical research. During the middle decades of the 20th century the federal government invested heavily in the capital development of the hospital industry, in biomedical research laboratories at academic health centers, and in capital funding for medical schools and other health professions schools to expand class size and laboratory space. There has never been an analogous systematic investment in public health infrastructure. Since 1988, four studies by the Institute of Medicine (IOM) have reinforced the case for sustained federal action, both domestically and internationally, to strengthen public health infrastructure (Committee for the Study… 1988; Lederberg; Shope, and Oaks 1992; Board on International Health 1997; Durch, Bailey, and Soto 1997). According to a recent CDC study, states are providing only about 50 percent of the essential public health functions (CDC 2000a; 2000b). As a result, there are major deficiencies in the nation's capacity to monitor disease and intervene in crises to assure safe water, food, pharmaceutical, and blood supplies, dispose of waste, prevent disease and promote health education, and monitor the quality of personal health care.

Capacity building, like other federal health responsibilities, is fragmented. NIH dominates the research budget. The CDC provides most DHHS support for intramural and investigator-initiated prevention research, and CDC and HRSA support public health workforce development. AHRQ is the main DHHS unit for funding

health-services research and training health-services researchers. Both the CDC and AHRQ have had far less money than they could usefully spend. The VA and the DOD also support health-services and biomedical research (as well as graduate medical education and nurse training).

The largest source of support for health professional training is Medicare's funding of graduate medical education (GME). Medicare supports salaries of residents in hospitals that treat patients covered by Medicare and pays teaching hospitals for some of the costs associated with their training. GME payments dwarf the funding of the health workforce from the other main source, HRSA grants under Title 7 of the Public Health Service Act. These grants support training for health professionals to address particular workforce needs, like the geographic maldistribution of physicians and overall shortage of primary care providers.

Without a significant new investment in human resources, the United States will not meet the *Healthy People 2010* objective for the size of the public health workforce. For instance, funding for preventive medicine residencies—ineligible for support from GME—represents less than $2 million of the overall federal health professions budget of approximately $300 million in FY2000 (Glass 2000). Moreover, the number of physicians as a percentage of the student body in schools of public health plunged from 61 percent of all students in 1946 to 11 percent in 1979; this percentage has been steady over recent years.

A review of recent studies of local health departments noted lack of resources, especially trained personnel, as a major constraint on performance of essential public health functions (Lee and Paxman 1997). These inadequacies include too few epidemiologists to track the incidence of disease and too few physicians trained in occupational and environmental health. A recent study in Texas estimated that about half of the state's 18,000 public health workers were in population-based health services in state local health departments, but only about 7 percent of them had any formal education in public health (Kennedy 1999). A HRSA study shows a current ratio of one worker for every 637 persons, a decrease from 1970's ratio of 1:457 (National Center for Health Workforce Information and Analysis 2000).

Federal Capacity to Manage for Population Health

Management of DHHS

Before REGO, the agencies of the Public Health Service had reported to the assistant secretary for health (ASH). The PHS agencies spent more than 90 percent of its discretionary budget and had 95 percent of the department's employees. When the only comparably sized unit in DHHS, the Social Security Administration (SSA), became an independent agency in 1994, the department agenda was dominated by health care financing, biomedical and health-services research, and public health programs. To bring these core activities closer to the secretary, the reinvention process moved management of the PHS agencies from the ASH to the secretary. The effects of "reinvention" will be discussed in the next section of this report.

Federal Interagency Collaboration and Federal/State Relations

Federal health-related programs are fragmented inside DHHS and widely scattered in the White House and across cabinet and subcabinet departments outside DHHS. Each agency has its multiple programs, its traditional role and expectations for its performance, its legislative champions, and its special interest advocates. The Reagan administration used cabinet councils chaired by secretaries to coordinate across departments. The Clinton administration occasionally asked the DPC or the NSC to convene multiple cabinet agencies, but these usually focused on very narrow initiatives for a limited time.

Except for Social Security, the national government plays a relatively small role in administering its domestic programs. A shrinking federal workforce is attempting to manage relationships and define expectations for performance with a growing state and local government workforce and myriad private-sector intermediaries, contractors, and providers. An increasingly complex and moderately expansionist policy to health and human services during the Clinton administration clashed with continued cuts in the resources available to federal, state, and local governments to manage these changes. For example, Congress demanded more complex Medicare regulations while slashing HCFA's administrative budget. Some variations in states' and localities' performance during this period were the result of ideology or political culture, but many reflected a lack of administrative resources or management expertise. This variation particularly affected welfare reform, the use of federal waivers to implement state health care reform through Medicaid managed care, and implementation of the State Children's Health Insurance Program (SCHIP), enacted as part of the Balanced Budget Act of 1997.

Environmental issues illustrate the complexity of contemporary federalism. When the EPA became an independent agency, it assumed the regulatory functions of environmental protection; but it arguably left the science base for the human consequences of environmental hazards behind in DHHS. The Center for Environmental Health at CDC, the Agency for Toxic Substances and Disease Registry (ATSDR), the National Institute for Environmental Health Sciences at NIH, and some parts of the FDA all address different human health effects of environmental hazards.

These divided responsibilities within the federal government are mirrored at the state level, where departments of environment and health are usually separate agencies that have overlapping authorities and responsibilities. The 1988 IOM report *The Future of Public Health* observed that EPA's creation led to "fragmented responsibility, lack of coordination, and inadequate attention to the health dimensions of environmental problems" (Committee for the Study… 1988).

The DHHS also lacks an overall strategy for "community friendly" policies and programs that take account of federal-state relationships. The DHHS has had problems coordinating activities in communities. For example, in 1995, the ASH convened a number of agencies to plan for DHHS action along the U.S.-Mexico border. The process identified hundreds of recipients of federal grants in that region, many of them in the same towns and cities. Each agency rarely knew of the others' activities.

Direct Management of Services

Although the VA and DOD manage large health-service enterprises, management of direct services is an extremely small part of federal activity. Examples of direct federal health-related activities at DHHS are:

- The Indian Health Service (although as a result of increasing self-government, tribes are managing federal health funds through contract arrangements).
- Prison health services in federal prisons by members of the Public Health Service Commissioned Corps.
- Immigrant health screening for the Immigration and Naturalization Service (INS), also by the PHS Commissioned Corps, usually through CDC (overseas) or HRSA (domestic, done in INS facilities).
- Federal emergency health response to natural disasters like hurricanes and floods. (The OPHS Office of Emergency Preparedness coordinates the departmental response through its own staff and mobilization of members of the PHS Commissioned Corps when the president declares a state of emergency or when there is a preventive alert, such as health and bioterrorism support for the Olympics. The Office of Emergency Preparedness also coordinates with the FBI and DOD on anti-terrorist activities.)
- Intramural research at NIH, CDC, and FDA.

*   *   *   *

In sum, opportunities for the federal government to play an increasing role in promoting and protecting health are undercut by problems in defining our health policy, investing in it, and achieving the coordination needed to implement it. The basis for effective change exists within the system, but it needs more attention and more support to increase its impact on our nation's health and improve global health.

Toward More Effective Federal Action

Comprehensive health policy for the 21st century should have three goals:

- to create conditions that lead to longer, healthier lives for all Americans;
- to eliminate health disparities;
- to protect communities from avoidable health hazards and help them to address their own health

problems.

Achieving these goals requires an expansion of the basis of health policy from a biomedical model, which accords priority to science and services to treat the diseases of individuals, to a population health model, which takes account of a broader range of determinants of health, including, in addition to medical care, behavior, biology, physical and social environment, education, socioeconomic status, employment, and housing. In previous sections, we described the challenges requiring action by federal health policymakers and obstacles to change. In this section, we offer ideas about how to surmount the obstacles to successful policy. Effective policymaking requires changes in five priority areas:

1. Finance personal health care services and research in ways that accord priority to prevention, patient safety, and population health.
2. Make sustained investments in the nation's public health infrastructure.
3. Increase access to health information.
4. Offer incentives for partnerships between communities and government to improve health.
5. Strengthen the capacity of government to manage the promotion and protection of health by reducing fragmentation within the federal government and improving coordination and collaboration across government.

Finance Personal Health Services and Research in Ways that Accord Priority to Prevention, Patient Safety, and Population Health

The policy we propose would use the major financial investments of the DHHS to promote population health more effectively. DHHS funds should increase access to safe, high-quality health care as well as to provide incentives for hospitals, insurers, and corporate payers to promote the health of their workers and their communities. Moreover, increases in NIH spending for biomedical research should address the most significant issues affecting the health of the population, especially its most vulnerable groups.

Shift Priorities for Federal Health Care Financing

Financial access to high-quality medical care is now a major priority, one of the ten leading indicators of *Healthy People 2010*. But that priority needs to be implemented. Continued increases in insurance for uninsured people are critical, but federal Medicare and Medicaid funds could be used more wisely to promote the health of current beneficiaries. The shifting of CMS from claims payer to prudent purchaser on behalf of its beneficiaries requires new policy. Medicare policy should:

- Simplify relations with states and other intermediaries and enhance public education efforts so that beneficiaries know how to use covered services.
- Create incentives for health plans and hospital systems to work more closely with local communities and their public health officials to assess beneficiaries' health in particular jurisdictions and develop appropriate community-based programs for them, including strategies for addressing significant disparities in care among Medicare beneficiaries (Gornick 2000).
- Require coverage of the clinical preventive services recommended by the U.S. Preventive Services Task Force (U.S. Preventive Services Task Force 1996) for Medicare beneficiaries, with ceilings set on co-pays and deductibles for these services.
- Monitor the effects of cuts in Medicare reimbursements on the availability of preventive services.
- Urge Congress, the insurance industry, and large business purchasers to promote community rating and encourage nonfederal payers to contribute to the costs of health-services research, clinical research, and medical education.

Medicaid policy should:

- Offer federal incentives to states, especially those seeking waivers for Medicaid managed care, to encourage state actions that promote community health.
- Require states to offer financial incentives for prevention programs to health plans and

providers (U.S. Preventive Services Task Force 1996).

- Urge states to take advantage of federal cost-sharing of 90:10 for select data systems like vaccine registries that can monitor population health indicators.
- Connect Medicaid more closely with other DHHS health care programs for vulnerable populations, especially the safety-net programs in HRSA as well as SAMHSA's block grants and the IHS, by assuring that the interests of these programs are recognized in the final recommendations for state waivers to the secretary.

These changes in Medicare and Medicaid policy could increase activity by providers and purchasers who already support broad health goals and could encourage others to embrace them. Large employers, for example, could be encouraged to see that they benefit in the short term and with long-term retiree health costs when they support prevention initiatives within their employee health plans and in the workplace. Large hospital systems and health plans could be particularly effective in pursuing a community health improvement strategy in partnership with local public health officials (Boufford 1999).

Such a strategy would have these characteristics:

- The provider or purchaser assumes responsibility for a particular population or community.
- The health needs of this population are assessed.
- Primary care systems, including preventive services, are created to link patients to the kind of personal health care they need.
- The community is involved in evaluating service gaps and quality problems, and collaborates with the purchaser or provider to solve the problems.
- The purchaser or provider organization develops ways to improve the health of its own workers.
- The workers are provided with health information so that they can become an instrument for healthy action within their communities.
- The purchaser or provider organization advocates healthy choices for the community in schools, workplaces, and commercial establishments.
- The purchasers and providers use their economic and political leverage within the community to stimulate health-related changes like economic development, housing, and public safety.

The Department of Defense has recently developed a greater population health orientation for its provision of health services. The Department of Veterans Affairs has already increased its focus on primary care and prevention for its beneficiaries. Elements of these models may have broader applicability to large private-sector health networks.

Quality of Care and Patient Safety

The federal government, and especially DHHS, coordinating with the states, has a critical role to play in decreasing the medical errors from which 44,000 to 98,000 people die each year (Kohn, Corrigan, and Donaldson 2000). Federal and state spending is almost 60 percent of all the money spent for personal health care (Fox and Fronstin 2000). Medicare, DOD, VA, and the OPM (for federal employees) alone represent more than 50 percent of health spending. If federal agencies jointly develop and implement uniform data and quality standards and worked with states to adjust their systems, they could influence the entire health care market. Work by the National Quality Forum, an organization of public and private groups created to develop a consensus on voluntary national quality standards, is already contributing to the campaign against medical errors. DHHS authority to determine conditions for providers' participation in Medicare can exert leverage to raise and harmonize standards for data and quality.

Research on Population Health

The NIH is spending more, but not enough, for research on populations, prevention, and health disparities. Congress expressed its concern about this issue by mandating a public advisory board for NIH in 1998 reauthorization legislation and in 2000 establishing a new Center for Minority Health at the NIH to address health disparities.

The NIH should embrace the entire continuum of research—not only creating knowledge in laboratories, or in moving it from there to clinical trials, but working with AHRQ and professional organizations to determine whether knowledge has traveled from the clinical trials to physicians' practices and individuals' behavioral changes. The NIH could increase investments in research on prevention and on the social, environmental, and behavioral factors that affect health status.

Many experts agree that only about 10 percent of all research funds internationally are invested in the health problems that are the major afflictions of more than 90 percent of the world's population. More research on, for instance, substance abuse and mental illness, among others, would help to address the "90/10" problem in this country.

Although CDC sponsors considerable prevention research and its application to public health practice, there is need for much greater investment in community-oriented research on prevention and health promotion, especially in investigator-initiated research. NIH should also collaborate more closely with CDC, using its resources to support such applied preventive research.

Invest in the Nations Public Health Infrastructure

Another critical step in a new health policy is to strengthen the public health infrastructure at the local, state, and federal levels. Infrastructure is largely invisible when it works properly. Its systems come to the public's attention only when they fail, for example, permitting outbreaks of E. coli from tainted food in restaurants, epidemics of asthma, unsafe water caused by aging purification systems, the resurgence of rats in cities, low immunization rates among children, or the appearance of diseases like West Nile virus, formerly seen only in Africa. These failures may produce emergency investment; when the crisis passes, attention shifts to other issues.

CDC, in a report to the Senate Appropriations Committee, laid out a comprehensive plan for assuring that "every health department is fully prepared and every community is fully protected" from threats to the nation's health (CDC 2000c). The report proposes appropriate steps, and a timetable for them, to strengthen the public health infrastructure—the workforce, information systems, research capacity, and organizations of local and state health departments and laboratories that provide systems to:

- detect outbreaks of infectious diseases, identify the causes, prevent their spread, and treat the people affected;
- detect environmental hazards and act to alleviate them;
- monitor overall community health;
- develop educational and prevention programs, often with private-sector partners, to inform the public about their community's health, its major problems, and the actions that individuals can take to protect themselves and promote their health.

CDC estimates that an ongoing federal investment of $500 million per year, ideally leveraging a 4:1 match from states and local governments, would be needed to address critical investments in infrastructure. The federal investment should include substantial funds to HRSA and CDC for public health workforce development, including a lifelong learning program that the CDC recently proposed for the more than 450,000 public health professionals who safeguard the United States (CDC 2001). The Public Health Threats and Emergencies Act of 2000, sponsored by Senators Frist (R., TN) and Kennedy (D., MA), proposes to jump-start this capacity building by authorizing $100 million per year in grants to states, concentrating on drug-resistant infections and bioterrorism.

Increase Access to Health Information

Health statistics and health information systems are vital to health policy, but because they are often underfunded, our ability to gather and analyze data on broad population health problems and health at the community level is very weak. As a result of pioneering work by the federal government and private-sector collaborators since 1993, however, rapid progress in this area could be made in the next few years, using a blueprint being developed by the NCVHS, which is the key external advisory body to the secretary of DHHS on data throughout the department. The NCVHS recently expanded to include additional stakeholders in the department's data system. A report for the department (NCVHS 2000a) recommended these principles:

- privacy protection;
- the use of broad determinants of health;
- data that are useful at different levels of aggregation, to serve local, state, and national needs;

- maximum access to and easy use of data;
- broad multisectoral collaboration and sufficient resources.

Another NCVHS project is to develop the National Health Information Infrastructure (NHII) (NCVHS 2000b). The NHII is part of the National Information Infrastructure (NII)—sometimes called the Information Superhighway—that evolved from the Telecommunications Act of 1993. The Internet is central to the NII. The Next Generation Internet (NGI) is a series of projects supported by a public-private partnership. The NCVHS presents a comprehensive vision for using information technology for health and health care in its proposal to develop three overlapping, but distinct, domains: "personal," "provider," and "community" (Lee, Abramovice, and Lee 2001).

Personal Health

The NHII increasingly offers consumers a vast amount of reliable information about diseases and treatments in a library format. Risk-assessment tools linked to search tools help consumers focus on issues that particularly concern them. Diary tools help patients keep track of their own health histories. The emerging field of "informed, shared decision making" furthers communication between patients and health professionals. Automated reminders enable patients to manage their condition better and to improve the timeliness of their medication and treatments. Peer support on the Web is increasingly popular.

The Health Provider

The NHII is just beginning to adopt standards for data on administering health care. Providers will be able to make better, more timely decisions because they have more access to detailed patient data. The greater availability of information about, for example, drug interactions and care pathways, alerts, and reminders may permit faster diagnoses and diminish treatment errors. In the NCVHS vision, the health provider domain should serve researchers and educators as well as patients and providers. Data standardization in this domain will require strong federal leadership.

The federal government already presents considerable information about the nation's health through the *Health, United States*, the annual publication by the National Center for Health Statistics (NCHS), and in many other reports by CDC, SAMHSA, NIH, AHRQ, and HCFA (now CMS). Much of this information is online, and DHHS Web sites are among the best in the federal government. The scope and sampling frames of these surveys should be increased and the data made even more accessible to the public, policymakers, and researchers.

Community Health

The NHII commits the United States to integrating population health into the NHII though this domain is less developed than the others. NHII emphasizes the need to balance determinants of health. This effort deserves significant, sustained federal investment. As the NHII collects, stores, and analyzes data on community health, reporting of emerging health problems will improve. We will have better descriptions of communities and their populations. We will also be able to identify the unique needs of groups that are underserved. Both will permit more targeted interventions and better public education for community action.

Develop the NHII within the DHHS and PHS

A comprehensive NHII would connect federal, state, and local government health entities with each other and with their counterparts in the private sector. Lee, Abramovice, and Lee (2001) have laid out a ten-year projection for federal support of about $12 billion to develop the NHII. Additional resources would be required from state and local governments and from the private sector.

The dispersion of responsibility for data inhibits the development of an adequate NHII. We propose the creation of a new Health Information, Communication, and Data Agency (HICDA). Its director would report to the secretary, the way a corporate chief information officer does. The new agency would strengthen the development of data policy, lead standardization efforts, improve analysis and dissemination, and enhance communications within DHHS and with outside entities. The agency would be formed by combining the existing NCHS with the general-purpose surveys that the CDC and other operating agencies conduct. HICDA would also coordinate the data acquisition activities that remain elsewhere in DHHS agencies and data that come from outside DHHS. The NCVHS could be a national advisory committee to the new entity.

In order to develop the potential contribution of the Internet to population health, the PHS must integrate its

own initiatives, synchronize them with other DHHS agencies, collaborate with other departments, reach each U.S. community through state and local government, and work with its consortium of private partners. Two agencies in the PHS are particularly pertinent to population health.

- Within the NIH the National Library of Medicine (NLM) has reengineered its information services and databanks to benefit both health professionals and members of the public who use the Web. Examples include the MEDLINE database; a clinical trials Web site for the public; outreach programs to improve community access to the Internet; programs about health disparities; and technical assistance to researchers worldwide. The NLM also invests heavily in medical information science, biological modeling, and Internet support for genome research. Other NLM programs improve access to medical information on the Web by encouraging medical libraries to work with local public libraries and other community organizations; deal with toxic waste sites and other environmental and occupational hazards; and train health professionals, community leaders, and others in minority neighborhoods to use its databases about hazardous waste.
- Within the CDC, the NCHS maintains the largest data repository in the DHHS, with more than 115 major data systems. The NCHS collects and disseminates statistics about, for example, the health of the population, health and nutrition, illness and disability, health resources, health care expenditures, vital statistics, and disparities in health status. Its director is senior adviser for health statistics to the secretary of the DHHS. The CDC also manages most intergovernmental health information activity. Its Public Health Practice Office distributes information to state, local, and industry leaders.

The Health Insurance Portability and Accountability Act (1996), expanded DHHS authority for data standardization, privacy, and security. The department will produce a comprehensive directory of data systems and sources and an archive of collections by the fall of 2001. It will also produce data links to source organizations, consolidated documentation of analytic methods, a repository of analytical tools, and a cross-linked compendium of results and publications during the next year.

Offer Incentives for Partnerships Between Communities and Governement to Improve Health

The shift to a community focus requires a paradigm shift and greater federal investment as well as managerial attention. Domestic and international experience shows that failure to engage community residents in solving their own health problems undermines successful, sustainable development (World Health Organization 1998, chap. 7) and hinders accountability. Successful community efforts require leadership from the top, an inclusive process, clear definition of the roles of government and the private sector, and precise benchmarks and performance measures.

Community initiatives are hindered by the proliferation of categorical federal policies and programs. Future federal health policies should assist communities to form broad-based partnerships to promote local health comprehensively. A performance-based approach to PHS program funding such as that proposed in the 1996 Performance Partnership Program should be revisited, permitting federal funding streams to be blended to achieve agreed-upon health goals.

Federal support for local government participation in community health matters began in the 1950s, under Marion Folsom, who was secretary of health, education, and welfare. The Federal Partnerships for Health Act of 1966 was based, in part, on the principle that Washington should help states and communities deal with local problems using flexible funding. Two HEW programs of the 1960s sought closer federal bonds with local people: the Regional Medical Programs sought to coordinate university medical centers and community action to address heart disease, cancer, and stroke; the Comprehensive Health Planning and Public Health Service amendments of 1966 focused on state and local government health planning and public health services.

There is evidence that emphasis on community involvement has grown. One report describes more than 400 collaborations (Lasker and Committee on Medicine and Public Health 1997). The *Healthy People 2000* report paid little attention to it. In contrast, *Healthy People 2010* stresses community involvement in health assessment and planning for action. Effective local programs like Healthy Cities, Healthy Communities, Healthy Schools, and Healthy Workplaces that have a variety of sponsors, including local governments, nonprofit community-based organizations, employers, and schools, as well as tools developed by the CDC like PATCH (A Planned Approach to Community Health) and APEX/PH (Assessment Protocol for Excellence in Public Health) are helping communities control and sustain involvement in health. New technologies can

provide powerful assistance to coordinated community action. For instance, HRSA, using its Area Resource File, has recently created a Web site that enables county governments to compare the health of their residents with persons in other counties.

Oregon has for more than a decade coordinated the efforts of state and local governments, the private sector, and community organizations to shape health and social policies and programs. Extensive public involvement in reorganizing the state's Medicaid program was one prominent example. Public health statistics have also been shared among counties to promote community action on selected health problems. A Social Support Investment Work Group with wide government and public participation developed a statewide human resources plan (Social Support Investment Work Group 1997).

Methods for engaging communities in health promotion and protection have evolved dramatically in recent years. The CDC, ATSDR, and the EPA have been particularly committed to community participation in environmental health action. SAMHSA has sponsored a series of conversations between senior agency officials and the Latino community on strengthening families. Private foundations have developed and supported community collaborations on health and environment. More federal investment in and managerial attention to such programs are critical to further develop our nation's capacity for effective community health action.

Strengthen the Government's Capacity to Manage the Promotion and Protection of Health

A policy that accords priority to addressing multiple determinants of health would require federal agencies to develop sustained and effective communication and working relationships across traditional organizational boundaries. Such a policy would involve federal, state, and local government leaders working with each other as well as with corporate and labor leaders and community-based organizations.

By contrast, the priority currently accorded to individuals' health in the executive branch encourages a focus on the performance of single agencies, like CMS and the NIH. The biomedical model has encouraged the proliferation of categorical programs that require the federal government to deal with 50 states, thousands of local governments, universities, professional schools, nonprofit community-based organizations, individual investigators, insurance companies, hospitals, and hundreds of interest groups. Moreover, multiple committees in the House and Senate now have jurisdiction over different segments of health programs, exacerbating the fragmentation in federal policymaking and federal-state relations.

Strengthen DHHS's Capacity to Manage for Population Health

No single federal health agency can mobilize all the other federal agencies without a strong mandate from the president. Nevertheless, the DHHS should improve its internal capacity to manage its major health agencies and to cooperate with other federal agencies, with states, and with the private sector.

During 1993-1997, the DHHS, like all federal departments, conducted a reinvention exercise (REGO) to determine what only the department can do and how to do it more effectively. During this exercise, it was agreed that DHHS had three essential roles:

- to serve the whole population;
- to focus on vulnerable segments of the population;
- to develop infrastructure to assure that state and local governments and the private sector could deliver services and to assure accountability.

There was also consensus that the DHHS needed to integrate its approach to health and the provision of social services; provide leadership and set national priorities; work in partnerships with other federal agencies, state, tribal, and local governments, and the private sector; supply support and technical assistance; and promote development and empower individuals and communities.

The REGO exercise identified a series of steps for reorganization and efficiency. Three of the major changes will affect the ability of the DHHS to promote population health and solve problems. The three major changes are the balance between centralization and decentralization; the role of the assistant secretary for health/surgeon general (ASH/SG); and the department's relationship with key stakeholders.

We recommend changes in each of the three areas. These recommendations are based on our own experience and interviews we conducted with current and former officials of DHHS, other cabinet departments, and the White House, and with state officials and other health experts who have worked closely with the department in recent years. We asked the interviewees to address two questions: How could the federal health apparatus refocus on population health? What management and organizational issues should be considered as a new secretary shapes the department?

Centralization/Decentralization: Managing the Department

In a department as large and complex as DHHS, the balance between centralization and decentralization is an overriding issue. Most interviewees agreed that the department is highly decentralized and that its staff identify more with their own agencies or programs than with the department as a whole. Before REGO, the PHS agencies reported to the ASH, permitting tighter coordination across the department's health agencies. After REGO, all operating divisions of the department—HCFA, the Administration on Aging (AOA), the Agency for Children and Families (ACF), and all the PHS agencies—reported directly to the secretary. The secretary selected this flat organization from among several options presented because it was consistent with her preference for maximum decentralization of authority to the operating units. Leaders of operating divisions generally prefer to report directly to the secretary. But most would also welcome a clearly defined structure to promote regular coordination, collaboration, and communication among departmental units.

Although some interviewees commented that continuity of top leadership and informal collaboration around specific issues have made special initiatives or effective crisis management possible, many doubted that this ad hoc approach can be sustained. Political appointees, and those who report to them, leave with a change in administration. Permanent staff members often remain insular and turf-conscious and easily revert to a focus on their own programs as soon as a special initiative is over. Because these initiatives are temporary, staff members rarely learn enough about each other's work to lay a foundation for future collaboration. A number of operating divisions within the department have developed formal interagency agreements to cooperate on specific issues, but the effectiveness of these mechanisms varies.

Several actions could strengthen coordination and communication among the health agencies within DHHS. First, the secretary could reverse the merger of the Office of the Assistant Secretary for Health (OASH) and Office of the Secretary and restore the ASH as head of an operating division of the PHS agencies, without restoring redundant administrative and financial structures. The agencies would resist a reversal, but it would directly address the lack of coordination among the health agencies.

Second, if the current flat organizational structure is maintained, a formal mechanism such as a departmental cabinet or leadership council should be created for those who report directly to the secretary to meet regularly with each other and the secretary. Such a mechanism would signal clearly that department leaders expect a coherent approach to long-term priorities and improved coordination to be supported by all. This mechanism could also strengthen current cross-departmental councils or working groups, like the Data Council, Public Health Council, Children's Council, and Environmental Health Policy Committee. Their agendas would be affirmed, and their progress tracked, by the secretary and by the department's leadership group. At present, most of these groups lack both the authority to make tough decisions and a mandate to bring options for such decisions to the secretary—especially if the decisions involve moving resources or authority among departmental units. Effective crosscutting groups need a charter and money for staffing that would enhance sustained collaboration among units.

Another alternative to a flat organization that could increase coordination and communication among agencies would be the creation of formal agency clusters along functional lines: the research agencies—NIH, FDA, CDC, and AHRQ; the human service agencies—ACF and AOA; and the health care financing and service agencies—CMS, HRSA, SAMHSA, and IHS. An assistant secretary reporting to the secretary would have line authority to lead each cluster.

Centralization/Decentralization: The Regional Offices

Policy choices about centralization/decentralization have significant impact on the role of the regional offices of the DHHS. The use of regional directors remains uneven, although their roles were redefined and reinforced during the second phase of REGO (REGO 2). The directors could promote a more integrated departmental presence in the regions and could alert DHHS leaders to regional variations that affect the department's ability to implement its programs. Many officials in DHHS operating divisions in Washington prefer that central agencies work directly with state and local government and grantees. Other interviewees regard other federal departments as having a much more visible, effective regional presence than the

DHHS. They attribute this problem to the fact that DHHS divisions, in some regions, are increasingly centralized, leaving regional officials out of decision-making.

Those who argue that strong regional offices are valuable say that they could:

- communicate DHHS priorities to the field and gather information about how to adjust programs for local circumstances;
- identify the need for capacity building at the local level in health and human service programs and public health infrastructure, work with the department to obtain resources to meet the needs, provide technical assistance, and evaluate results;
- convene state leaders in health and human services within regions;
- convene local leaders to increase their access to federal programs or to foster dialogue between government and academic and nongovernmental organizations about making DHHS programs more effective.

If regional offices are to become an integral, valuable part of the department, as we recommend, managerial attention and other resources, especially staffing, will have to be invested in them.

The Role of the ASH and Surgeon General

Many of those interviewed said that moving the ASH out of the direct management line over the PHS agencies has diminished the PHS as a coherent entity. Before REGO, the ASH had clear authority to convene and coordinate the PHS agencies. This authority is now diffused. The role of the ASH has become unclear. One interviewee said that "the department has lost its 'whip' function on public health." Health agency heads had also used the ASH for various purposes: to test solutions and programs with a health expert representing the secretary; to reconcile conflicts among agencies regarding standard-setting or resource allocation; and to advocate that smaller, less politically visible agencies be heard at the department level. Moreover, no secretary can have the expertise and the time to be the point of contact for every constituency seeking a hearing on a national policy issue or an intervention on a problem with department-wide implications. The ASH was the first contact on such issues for the secretary.

With either a flat or clustered departmental structure, it may be advisable to elevate the ASH to undersecretary rank, with clear authority to work with all departmental units on crosscutting issues identified by the secretary. The undersecretary would also offer a clear point of contact for outside constituents.

Most interviewees believe, as we do, that it is difficult for one person to be fully effective as both the ASH, or the undersecretary, and the surgeon general. An activist surgeon general reaches out to the public through the media. An activist ASH needs to remain active inside the department. Most interviewees favored having the surgeon general report to the ASH, as has been the case since the 1960s.

The OPHS, the staff office supporting the ASH, should be restructured to add resources and increase the number of generalists on its staff. Some of the current program offices lead to narrowly segmented interests, several mandated by specific congressional action. Most interviewees felt that science policy should be returned to the OPHS from the assistant secretary for planning and evaluation (ASPE) in order to avoid confusion about the locus of public health and scientific expertise relevant to it within the Office of the Secretary.

Interagency Collaboration

Interagency collaboration at the federal level is very different because specialized agency structures have tried to adapt to the multiple programs that reflect the political diversity of the United States. Each agency has its traditional role and expectations for its performance, its legislative champions and its special-interest advocates. Nowhere is this truer than in health, where programs are already widely scattered across cabinet and subcabinet departments outside DHHS and are fragmented inside DHHS.

This tradition is obsolete; in an increasingly complex world, no single agency can work properly in isolation. Most observers agree, however, that extensive organizational restructuring is rarely worth the time and political trouble involved. It may seem advisable to some to "reunite" the DHHS and EPA, create an independent food-safety agency from portions of the FDA, USDA, and EPA, return all health and social welfare programs for senior citizens to DHHS, or move them to SSA. But the obstacles are formidable.

This leads us back to exploring ways to enhance cross-agency collaboration. Effective collaboration requires additional resources. Bardach claims that no cross-agency activity can overcome the difficulties faced by any government activity that is underfunded or losing money and identifies criteria to determine what he calls interagency collaborative capacity (Bardach 1998). First, it requires leaders who believe that collaboration has value and have some trust in each other. Second, formal resource commitments are needed: agreements at the executive level; assignment of personnel, budget, equipment, space, and administrative services; clear delegation of tasks; and accountability for the results. This formal model has been successful, for example, in the Presidential Task Force on Environment and Child Health and the multiagency task force on bioterrorism led by the National Security Council.

There is international agreement on the importance of cross-agency collaboration for healthy public policy. The World Health Organization calls for policymaking that acknowledges the interconnectedness of health, the economy, education, housing, and the environment as a national goal in its Health For All Strategy. Some countries have already acted. Great Britain, for example, enables each cabinet department to comment in advance on the potential impact on its work of major policy initiatives by other departments. Problems are reconciled within the cabinet.

In the United States, during the Reagan administration, designated secretaries chaired cabinet councils on various topics. One interviewee commented that the councils worked when assistant or deputy secretaries were consistently involved, the councils were well staffed, and the secretaries themselves could be drawn in when needed.

The Clinton administration occasionally used the Domestic Policy Council (DPC) or National Security Council for coordination. But these efforts usually focused on specific programs or initiatives for short periods of time.

It is worth considering a formal interdepartmental "Health Council," convened and chaired by the White House or by the secretary of DHHS, to promote systematic attention to the health effects of various policies and to manage interagency coordination. Such a council would work only if health is a clear priority of the president.

DHHS's relations to other departments are also critical to its effectiveness in international health. At present, no entity is designated to lead international health policy. In *America's Vital Interest in Global Health,* an IOM committee called for better coordination within the U.S. government through a Task Force on Global Health (Board on International Health 1997) and also recommended legislation to give specific international authority, funding, and policy leadership to the DHHS "because of its unique scientific and technical expertise." To play this role, the international activities of the DHHS would need to be better integrated and led by a more senior official, most likely an assistant secretary. Moreover, the NSC should continue to have a health official, supported by DHHS, and a senior PHS officer should be assigned to the State Department.

Federal-State Relationships

To renew the U.S. public health infrastructure will require better collaboration at all levels of government. The major federal-state interactions with DHHS in recent years have concerned financing of Medicaid, Medicare, and welfare programs. Most interactions have been arguments over money and the degree of freedom to spend it. As one state health official we interviewed said, "The states have been reduced to an interest group just like any other."

A difficult issue is the federal government working directly with local governments, which receive authority and resources from the states. There are more than 90,000 units of local government. Ninety percent of them encompass fewer than 10,000 people; 80 percent have fewer than 5,000 (Cigler 1998). Some local governments and Indian tribal governments look to Washington to correct inequities they experience at the hands of state governments; other localities have tense relations with their state counterparts, which direct federal relationships may exacerbate. Managing these relationships in a way that engages local and tribal government but respects the authority of states is essential to building any long-term partnerships.

There are many ways to improve these partnerships among levels of government. The Association of State and Territorial Health Officials (ASTHO) and the National Association of City and County Health Officials (NACCHO) could be linked more formally to the DHHS, as could the National Governors' Association, the National Conference of Mayors, and the National Conference of State Legislatures. A National Public Health Council might link the secretary and state health officers for regular, well-staffed meetings to pursue a national health agenda. All our interviewees agree that greater partnership is needed right now.

Good management is the key to successful collaboration within and among government agencies, and between government and other sectors. Good management means establishing a clear purpose for the collaboration; negotiating methods to be used and results to be expected by a given time; and supplying human, financial, and organizational resources to develop and sustain these relationships formally and informally. Many of these relationships can also ensure that department and agency leaders are knowledgeable about the challenges facing key stakeholders—especially NGOs, advocacy groups, grantees, and business groups. Many departmental entities use external advisory groups to provide information about the pressures stakeholders face in the overall environment, their future plans, and the ways in which DHHS and other government programs affect them. Effective regional offices can do this in a geographic area. The department's Office of Intergovernmental Affairs, which has historically handled state and tribal relations, is small and is consumed by political troubleshooting on a vast array of DHHS policies and program. It could be restructured to play a more central role in coordinating key federal, state, and local government linkage for the department.

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Building policy to address the broad determinants of health will be no easy task. Categorical programs and narrow advocacy-group interests are entrenched. Decentralization has thus far failed to balance the flexible management that encourages autonomy with the close coordination appropriate to the department's goals. Setting priorities and creating structures that help the department lead in promoting health at home and abroad will be difficult. But it is necessary.

Conclusion

We wrote this report in the context of scientific evidence about the critical determinants of health in a population. This evidence begins to explain why, although the United States spends more money on health than any country in the world, the nation does not rank among the top ten countries on important measures of health status.

We also reviewed the evolution of executive-branch health organizations and programs since the late 18th century, when the federal government first assumed a role in health. We conclude that today's proliferation of policies and programs designed to deal with specific diseases, specific services, and specific populations has led to fragmented executive-branch departments and agencies that administer the programs. This pattern is replicated in state and local governments and in nongovernmental organizations that must implement the policies or manage the programs.

We also interviewed current and former DHHS and other federal agency officials and individuals from state and local government and the private sector who interact with the DHHS. Most of them supported our assessment of the problem, though not all of our recommendations for change.

We recommend changes in policies, programs, and organization within the DHHS and across the federal government that can equip us to move toward more effective health policy in the 21st century. The individuals and institutions that must act increasingly appreciate what is at stake and what needs to be done. Despite the obstacles, strong executive leadership and effective federal-state partnerships could produce great progress.

New policy must address the multiple determinants of health by continuing important national programs:

- Because income and health are related, we should sustain America's economic strength and provide opportunity, while protecting the most vulnerable;
- Because education greatly influences an individual's health, we should continue to strengthen our educational system, particularly early childhood development, education for women, and general literacy;
- Because access to personal health care services is important, we should continue incremental efforts to assure financial, geographic, and cultural access to high-quality, safe health care for all Americans;

- Because our policy and programs should be based on science, we should not only continue national investments in biomedical and public health research but also invest in research in prevention and in the social and behavioral determinants of health, sustain progress on environmental protection, and develop ways to translate knowledge into practice.

Building on this foundation, we recommend five new priorities for 21st-century health policy:

1. Finance personal health services and research in ways that accord priority to prevention, patient safety, and a population health perspective.
2. Make sustained investments in the nation's public health infrastructure.
3. Increase access to health information.
4. Offer incentives for partnerships between communities and government to improve health.
5. Strengthen the capacity of government to manage the promotion and protection of health by reducing fragmentation within the federal government and improving coordination and collaboration across government.

Together these actions can enable the United States to become the healthiest nation on earth and to be a leader in improving global health.

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