COALITION
FOR HEALTH SERVICES RESEARCH

Federal Funding for Health Services Research

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FEDERAL FUNDING FOR HEALTH SERVICES RESEARCH

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EXECUTIVE SUMMARY

Introduction

The United States spent $1.55 trillion on health care in calendar year 2002. Of that, approximately $34.3 billion (or 2.2 percent of total health care spending) was spent by the federal government on health research.[1] Of the total spent for health research, we estimate that 75 percent goes to biomedical research, 20 percent to clinical research, and 5 percent to health services research. The field of health services research helps translate the discoveries of health research into policy and practice[2]. The investment in health services research represents a mere one-tenth of one percent of the total spent on health care.

This is the second annual report on the federal baseline funding for health services research. AcademyHealth compiled the first report to obtain baseline data on federal expenditures for health services research across the federal government and to present our findings regarding future research priorities from a survey of health research and policy leaders. The Coalition for Health Services Research, AcademyHealth's advocacy affiliate, has updated the baseline data from the first report and plans to update this report annually. This second report also provides recommendations for how the federal government should improve the reporting of health services research expenditures.

The Coalition's Board of Directors and staff acknowledge and appreciate the assistance that federal agencies have provided in compiling this baseline report on federal funding for health services research.

Findings

This baseline report documents that health services research expenditures are widely dispersed across the federal government. From information provided to us by the following federal agencies, we estimate that $1.5 billion was expended for health services research and related activities by the federal government in FY 2003. This total is distributed to the following agencies:

- **Agency for Healthcare Research and Quality (AHRQ)—$309 million;**
- **Centers for Disease Control and Prevention (CDC):**
    - **National Center for Health Statistics (NCHS)—$126 million;**
    - **Extramural Prevention Research Program—$14 million;**
    - **Public Health Research—$30 million;**
- **Centers for Medicare and Medicaid Services (CMS)—$74 million[3];**

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[1] Levit, K. et al. "Health Spending Rebound Continues in 2002," Health Affairs, Vol. 23, No. 1, January/February 2004, p. 148.

[2] AcademyHealth defines health services research as "the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Its research domains are individuals, families, organizations, institutions, communities, and populations."

[3] Most of the funding in CMS's research budget actually represents congressional earmarks for activities that are only remotely related to CMS's research and demonstration interests.

- **The Department of Defense (DoD)—$15 million;**
- **National Institutes of Health (NIH) (All Institutes)—$873 million; and**
- **Veterans Health Administration (VHA)—$52 million.**

Given that these agencies do not use a standard definition or uniform categories to report their expenditures, questions remain about what is included in these totals. From the data reported by AHRQ, CMS, and NCHS, we know that a total of $191 million was spent to support data systems used in health services and health policy research. We also know that the NIH expenditures include both health services research and dissemination activities.

This annual assessment continues to find a lack of precision and consistency in how each federal agency defines and reports its expenditures for health services research. The balance of the government's expenditure on health services research is heavily tilted towards clinical issues, such as translating clinical research to the bedside and informing clinical decision-making. The clinical research emphasis is aligned with one of the field's priorities—to improve the quality of care—but it does not include important elements for improving the quality and efficiency of the health care system as a whole, such as measurement, incentives, and reporting. By comparison, relatively little funding is being provided to study overall system quality and to understand what is driving health care costs, and how to achieve the needed improvements in efficiency.

Challenges

AcademyHealth's first funding report, titled Federal Funding and Priorities for Health Services Research and released in March 2003, noted the difficulties associated with collecting baseline data on the federal expenditures for health services research. One of the major challenges is that federal agencies do not use a standard definition or uniform categories to report their health services research expenditures. In updating this report, the Coalition for Health Services Research encountered the same difficulties in compiling and reporting the expenditure data. Without a uniform definition and common categories, it is very difficult for Congress and the major users of this research to assess how the current investment in health services research relates to problems and challenges facing health and health care in America.

Before reviewing the baseline data provided in this report, readers should understand the following:

- **Budget numbers can reflect entire agency budgets, including overhead costs, or they can represent a rough estimate of dollars spent specifically on health services research without factoring in the associated overhead cost.**
- **Most agencies do not separate overhead or program support from actual research expenditures.**
- **Most agencies do not report the proportion of their research funding being allocated to intramural versus extramural research. There is a perception at least that federal agencies are devoting a smaller proportion of their research funding to extramural investigator-initiated research.**

- **Many studies address multiple subject areas within the health services research field, such as quality and cost; this makes it difficult to disaggregate expenditures by the broad categories such as access, cost, and quality.**

Based on what the agencies report, the federal government now spends collectively more than $1.5 billion for health services research. However, given the questions we have about the accuracy of this total and about how these funds are now allocated, we are not able to draw conclusions about how these and additional resources might be best targeted to meet pressing new challenges in health and health care.

AHRQ has just begun to report its budget categorized by ten major portfolios. These portfolios include research topics (e.g., quality and safety of patient care, informatics, chronic care) and major agency functions (e.g., data development, training). See page 8 for a table showing how AHRQ's FY 2005 budget has been allocated to these broad portfolios. If all federal agencies were to use similar categories, it would then be possible to report how the overall federal investment is allocated to these categories.

Recommendations

Based on these findings, the Coalition for Health Services Research recommends the following actions:

1. **Develop and adopt consistent definitions and standard categories across the federal agencies that fund and support health services research. We recommend that that the Office of Management and Budget and the Department of Health and Human Services (DHHS) work together to develop a standard definition and categories for use in reporting their expenditures for this research. Congress should express its interest in achieving this goal. Agencies would do well to follow AHRQ's recent example and report their health services research budgets by major portfolio areas.**

2. **Establish a systematic mechanism to assess current federal investments and identify future needs. Researchers, practitioners, policymakers, and funders should be given an opportunity to advise the government on research priorities and these priorities should inform budget allocations. During the past few years, the Assistant Secretary's Office for Planning and Evaluation has been using an internal Research Coordinating Council to review health services research expenditures within the DHHS. The Coalition requests that the DHHS provide periodic opportunities for leading health services researchers and private funders of this research to advise the Research Coordinating Council on current and future needs.**

Without a better understanding of the federal government's investment in health services research, it is difficult to make judgments about how this funding can be best aligned to meet priority needs. We believe that these recommendations would move us closer to our goal of using government research resources more effectively to guide needed improvements in America's health care system.

BACKGROUND AND ASSESSMENT PROCESS

This Federal Funding for Health Services Research report is intended to shed light on what the federal government spends on this field. Ideally, a comprehensive assessment of the investment in health services research would include research funded by private foundations, given their importance to the field. Unfortunately, information about the amount spent on health services research or the number of projects supported by foundations is not collected in a systematic, consistent way.[4]

Ultimately, this type of assessment should provide a detailed breakdown of the specific categories of health services research (e.g., clinical quality, system quality, access, and cost) funded across federal agencies. Although it was not possible to obtain a comprehensive and consistent breakdown of current expenditures, this report does provide information on the total expenditures from federal agencies funding health services research.

CURRENT INVESTMENT IN HSR

Where possible, a four-year history of funding for various agencies is provided. Actual expenditure data are used for FY 2002 and FY 2003. For FY 2004, amounts appropriated by Congress are reported. For FY 2005, the amounts in President Bush's proposed budget are reported. A number of federal agencies support health services research, including AHRQ, CDC, CMS, NIH, VHA, and DoD.

AHRQ

AHRQ's mission is to improve the quality, safety, and efficiency of health care services. In conjunction with its partners, AHRQ is committed to ensuring that knowledge gained through health services research is translated into measurable improvements in the health care system and better care for patients. This mission is accomplished by supporting, conducting, and disseminating research that improves the effectiveness, quality, access to, cost, and use of health care services. AHRQ works to enhance patient safety while entering into active partnerships with those who use the research to ensure that it is translated into measurable improvements.

In FY 2003, AHRQ solicited and funded research projects in the following major areas: Patient-Centered Care; Customizing Care to Meet Patients' Needs; Impact of Payment and Organization on Cost, Quality and Equity; Translating Research Into Practice - Joint Program Announcement and Partnerships for Quality. In addition, AHRQ continued to sponsor research in the area of Patient Safety.

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[4] While the total amount spent by foundations on health services research is not known, we do know that the largest national foundation supporting health services research, The Robert Wood Johnson Foundation, spent approximately $6 million in 2000 and is projected to spend $5 million per year over the next three years on research related to health care financing and organization.

Table 1 provides a breakdown of AHRQ's budget from FY 2002 to FY 2005. With a funding appropriation at $304 million, AHRQ devotes 37 percent of its budget to research and training grants. This is a reduction from 44 percent of its budget devoted to these areas in FY 2003. In FY 2004, AHRQ will allocate:

- **$102 million to 290 research grants.**
- **$11.1 million on 84 training grants.**
- **$53.3 million to the Medical Expenditure Panel Survey (MEPS).**
- **$52 million on research management, including the overhead and infrastructure (e.g., staff, maintenance, etc.) required to run the agency.**

Table 1

Agency for Healthcare Research and Quality (AHRQ) Budget (Dollars in Thousands)								
	FY 2002 Actual Expenditure		FY 2003 Actual Expenditure		FY 2004 Appropriation		FY 2005 Estimated	
	No.	Dollars	No.	Dollars	No.	Dollars	No.	Dollars
Research Grants								
Non-Competing	193	96,374	237	94,421	150	61,613	127	67,395
New and Competing	213	37,375	127	29,136	140	40,400	100	17,953
Supplemental		4,553		1,564		649		500
Total	406	138,302	364	125,121	290	102,662	227	85,848
Training Grants	61	8,768	82	10,698	84	11,108	95	13,067
Contracts and Inter-Agency Agreements		54,085		67,568		82,625		95,580
MEPS		48,500		53,300		55,300		55,300
Research Management		49,064		51,965		52,000		53,900
TOTAL, AHRQ		298,719		308,652		303,695		303,695

Table 2 shows the AHRQ FY 2005 budget broken down into 10 major portfolios, which includes research topics and agency functions. This is a new approach for the agency, and as such the FY 2005 budget is a pilot test for allocating funding to these portfolios. The estimate for FY 2005 may change as the agency refines this approach while developing its FY 2006 budget.

Table 2

AHRQ Portfolios as a Percent of the total FY 2005 Budget	
Budget Line/Portfolio	**% of Total Budget**
Quality/Safety of Patient Care[1]	10.5
Informatics[1]	21.0
Data Development[2]	22.3
Chronic Care Management	9.7
Prevention	9.5
Bioterrorism[3]	0.0
Socio-economics of Health Care	12.9
Pharmaceutical Outcomes	4.8
Training	2.6
Long-term Care	5.6
Organizational Support	0.9
Total	100

[1] There is a significant link between the Quality/Safety of Patient Care and the Informatics Portfolios. This budget is primarily the Patient Safety Earmark.
[2] 18.2 percent of the Data Development Portfolio is devoted to the Medical Expenditure Panel Surveys.
[3] AHRQ's bioterrorism research is funded through support from the Office of Public Health Emergency Preparedness (OPHEP). This funding is reimbursable and is therefore not part of the agency's appropriated budget.

CDC

The Centers for Disease Control and Prevention's mission is to promote health and quality of life by preventing and controlling disease, injury, and disability. CDC and its eleven centers and offices devote considerable resources to research and development (approximately $601 million out of a total budget of $7 billion). A portion of this research budget is allocated to the development and evaluation of public health programs, which use health services research. However, based on the information we received, we were unable to disaggregate the portion of CDC's total research budget that is devoted to health services research.

- **The National Center for Health Statistics conducts a series of national surveys, the results of which are used by health services researchers and health policy analysts, including the National Health Care Survey and the National Health Interview Survey.**
- **The Extramural Prevention Research program, which received $13.8 million in FY 2004, funds community-based research collaborations to transform research and knowledge into improved health programs and practices.**
- **In FY 2004, the CDC developed a new program to conduct research in public health. This $30 million program is funded through $15 million in newly appropriated funds and $15 million from administrative savings. It is seen as the successor program to the Extramural Prevention Research program.**

Table 3 displays the allocations for these two CDC components for FY 2002–2005.

Table 3

Centers for Disease Control and Prevention Selected Programs (Dollars in Millions)				
	FY 2002 (Actual)	**FY 2003 (Actual)**	**FY 2004 (Appropriated)**	**FY 2005 (Estimated)**
National Center for Health Statistics	**$126.8**	**$125.9**	**$127.6**	**$150**
Extramural Prevention Research	**$15.3**	**$13.8**	**$13.8**	**$0**
Public Health Research	**0.0**	**0.0**	**$30**	**$30**

CMS

CMS's Research, Demonstration, and Evaluation office, where the majority of funding for CMS's health services research is found, supports research and demonstration projects that develop and implement new health care financing and payment policies or examine the impact of CMS's programs on its beneficiaries, providers, states, and other customers and partners. These projects explore issues related to health care costs, access, quality, service delivery models, and financing and payment approaches related to its programs. In some years, most of the funding in CMS's research budget actually represents congressional earmarks for activities that are only remotely related to CMS's research and demonstration interests.

- **The majority of health services research at CMS takes place in the Office of Research, Development, and Information, which is the only office that supports extramural research. In FY 2003, $73.6 million went to support these activities. Table 4 provides more detail about these allocations and illustrates how this source of funding has evolved over time.**
- **Most of CMS research funding in recent years has come from congressional earmarks or study requests made by Congress. CMS has had almost no funding for investigator-initiated research for the last three years.**

Table 4 displays total research and development funding for CMS, including a breakdown of how much of their funding is mandated by Congress.

Table 4

Centers for Medicare and Medicaid Services Office of Research, Development and Information Budget (Dollars in Millions)				
	FY 2002 (Actual)	FY 2003 (Actual)	FY 2004 (Appropriated)	FY 2005 (Estimated)
Total Funding	$117.0	$73.6	$77.8	$68.3
Investigator-Initiated	$1.5	$0.5	$0.8	$0.8
Congressional Earmarks	$62.9	$45.5	$50.8	$0
Targeted	$52.6	$27.6	$26.2	$27.46
Set-Asides[1]				$40
Percent Investigator-Initiated	1%	.6%	1%	1%
Percent Discretionary	21%	30%	29%	33%
Percent Set-Aside				59%
Percent Statutory	78%	70%	70%	7%

[1] In FY 05, the targeted amount includes $40 million for Systems Change Grants, which is included in the President's budget. In the previous years, it is reflected in the earmarks. It is identified in a separate line to distinguish that it is not true discretionary funding.

DoD

The Department of Defense's health services research function uses two methods to evaluate the efficacy of its programs, to determine necessary policy changes, and to assess the effect of those changes. Through surveys, the Department collects customer satisfaction data, utilization data, and demographic data. The Department also contracts with external organizations to analyze trends and to assess the likely effect of different policies.

Although there is not a separate line item for health services research in the Department of Defense's budget, it estimates that it spent about $17 million on health services research-related studies in FY 2001 and FY 2002. In FY 2003, approximately $15 million of health services research was allocated. Most of these funds are spent on surveys, with the remainder going to contractors for policy analysis.

NIH

Through the scientific study of the nature and behavior of living systems, NIH strives to extend healthy life and reduce the burdens of illness and disability. Specifically, the Institutes support research to improve the nation's health, provide scientific resources to aid in disease prevention, contribute information to medical and associated sciences to advance the nation's economic well-being, and conduct science in an exemplary and socially responsible manner. Most of the health services research conducted within the individual NIH Institutes are focused on translating the outcomes of clinical research to the bedside by attempting to identify barriers to translation and strategies for overcoming those barriers. NIH estimates a total of almost $896 million for health services research in FY 2004, and $917 million within the FY 2005 President's request.

Table 5 highlights the health services research budget for key institutes, showing those with the largest total expenditures for health services research. Table 6 provides more detail about the NIH health services research budget in FY 2004 as an example of the relative investment of the institutes in health services research. The total budgets for the eight institutes listed in Tables 5 and 6 comprise 89.5 percent of NIH's health services research budget. The proportions these institutes devote to health services research shown in Table 6 for FY 2004 were similar to those reported for FY 2002. The three institutes funding the greatest amount of health services research account for 57.2 percent of the NIH total. The proportions these three institutes spend for health services research ranges from 3.2 to 15.5 percent of their total budgets:

- **The National Institute of Mental Health (NIMH) devotes about 15.1 percent of its own budget to health services research and this constitutes 23.2 percent of NIH's total health services research budget.**
- **The National Institute on Drug Abuse (NIDA) spends 15.5 percent of its budget on health services research and this represents 17.1 percent of NIH's total budget for this area.**
- **The National Cancer Institute (NCI) devotes about 3.2 percent of its overall budget for health services research but this amount accounts for 16.9 percent of NIH's total health services research budget.**

Table 5

Health Services Research Allocations by NIH Institutes (Dollars in Thousands)			
	FY 2003 (Actual)	**FY 2004 (Appropriated)**	**FY 2005 (Estimate)**
NIMH	**$202,204**	**$208,543**	**$214,191**
NIDA	**$149,566**	**$153,572**	**$157,954**
NCI	**$145,283**	**$151,094**	**$154,116**
NIA	**$72,536**	**$74,800**	**$77,000**
NIDDK	**$71,325**	**$70,936**	**$71,619**
NIAAA	**$64,756**	**$65,000**	**$67,000**
NHLBI	**$52,471**	**$53,940**	**$55,289**
NLM	**$22,540**	**$23,606**	**$24,314**
Other NIH HSR	**$92,406**	**$94,442**	**$95,583**
Total	**$873,087**	**$895,933**	**$917,066**

NIMH: National Institute of Mental Health
NCI: National Cancer Institute
NIDA: National Institute on Drug Abuse
NIDDK: National Institute of Diabetes and Digestive and Kidney Diseases

NIA: National Institute on Aging
NIAAA: National Institute on Alcohol Abuse and Alcoholism
NLM: National Library of Medicine
NHLBI: National Heart, Lung, and Blood Institute

Table 6

Analysis of Eight Leading NIH Institutes' Budgets for Health Services Research FY 2004 (Dollars in Thousands)			
	Total HSR Budget	Proportion of Total Institute Budget that is HSR	Proportion of NIH's Total HSR Budget
NIMH	$208,543	15.1%	23.2%
NIDA	$153,572	15.5%	17.1%
NCI	$151,094	3.2%	16.9%
NIA	$74,800	7.3%	8.4%
NIDDK	$70,936	3.9%	7.9%
NIAAA	$65,000	15.2%	7.3%
NHLBI	$53,940	1.9%	6.0%
NLM	$23,606	7.6%	2.6%
Other NIH HSR	$94,442	30.3%	10.5%
Total	$895,933		

VHA

The mission of the Veterans Health Administration's Health Services Research and Development Service is to improve quality of care by studying the effect of financing, organization, and management on quality, cost, and access. In FY 2003, the VHA spent approximately $52 million on direct support of health services research. This is an increase from FY 2002, when they spent about $50 million.

All types of merit-reviewed awards were included in the $52 million spent in FY 2003. A total of $18.3 million was spent on investigator-initiated research; solicited research projects focused on topics such as patient safety, telemedicine, and ethnic and cultural variation, nursing research, and the Quality Enhancement Research Initiative (QUERI). HSR&D spent $10.6 million to fund Centers of Excellence to serve as national resources of scientific and technical expertise, $3.2 million to fund smaller Resource Centers, and $13.2 million to build capacity in health services research through such programs as Career Development and Research Enhancement Awards. HSR&D also spent $3.2 million on Service Directed research and QUERI projects that are initiated centrally.

APPENDIX

Characterization of Agency Research
(Self-Reported)

Agency for Healthcare Research and Quality

AHRQ Budget FY 2003	$308.7 million

Examples of Research:

Patient-Centered Care: Customizing Care To Meet Patients' Needs. One critical set of issues facing public and private policymakers concerns the challenge of redesigning processes of care to enhance delivery of patient-centered care. To address these issues, AHRQ funded projects that support redesign and evaluation of new care processes that lead to greater patient empowerment, improved patient-provider interaction, easier navigation through health care systems, and improved access, quality, and outcomes. Projects included the evaluation and implementation of strategies related to electronic clinical communication, self-management programs, Web-based applications for patients and/or health care providers, and shared decision-making programs. Projects that were funded emphasized improving the delivery of care related to chronic illness, episodes of care that extend beyond hospitalization, longitudinal care, and priority populations (e.g., inner-city areas; rural areas, including frontier areas; low-income groups; minority groups; women; children; the elderly; and individuals with special health care needs, including individuals with disabilities and individuals who need chronic care or end-of-life health care).

Impact Of Payment And Organization On Cost, Quality, And Equity. AHRQ funded a variety of projects that addressed important issues related to how different payment methodologies and financial incentives within the health care system affect health care quality, costs, and access, and how payment methodologies affect the behavior of health care organizations and individual providers. The agency also funded work exploring which payment arrangements among patients, providers, and health plans enhance patient-centered knowledge of and involvement with treatment regimens and how payment policies affect decisions about the purchase and selection of health services and health insurance and the role of quality in such decisions.

In addition, projects funded in response to this solicitation focused on developing an understanding of the impact of purchaser and public-sector initiatives on quality, costs, and access to health care and health insurance and the impact of state efforts to monitor and improve access and quality, and the impact of public and private payment changes on access to health care and to health insurance for vulnerable populations.

Translating Research Into Practice. Projects funded under this solicitation represent AHRQ's, and VA's continued interest in translating research evidence into practice, and their desire to build on existing research in this field. This collaborative effort provided an opportunity to compare and contrast the challenges of making use of research findings at the public-policy level, within and across different systems of care, and to contribute to the goal of identifying effective and efficient interventions that have the potential to improve clinical practice, enhance patient safety, and sustain practitioner behavior change across populations, multiple health conditions, and health care systems.

In general, the projects funded will compare the use of interventions to translate research into practice across different health care systems and measure the impact of translation activities (including the testing of interventions that foster measurable and sustainable quality and patient safety improvement or consistent quality and patient safety at a lower cost).

Partnerships for Quality. In recent years, the Agency expanded its research portfolio beyond studies of what works best in medical practice, health care organization, and payment to include evaluation of the effectiveness of alternative strategies for using this knowledge to improve health care. The Agency's portfolio now includes multiple studies that evaluate the effectiveness of improvement strategies, and a growing body of scientific literature has emerged. The Partnerships for Quality initiative takes this research and actively engages partners to affect the implementation of promising findings.

The Partnerships for Quality initiative provided a mechanism for collaboration among the member organizations of the Partnership, including AHRQ, to translate research findings into practice and policy. The unifying goal is a strong commitment to the improvement of health care services and their security, safety, outcomes, quality, effectiveness, and cost-effectiveness.

Member organizations, including AHRQ, will use the cooperative agreement mechanism to: identify and prioritize aims for improvement based on member need and existing evidence of effectiveness; translate, disseminate, and implement research findings with a strong preference for findings that have resulted from prior Agency-sponsored research; identify, create, and expand opportunities for collaboration and coordinated efforts in response to new, emerging, or ongoing issues related to the security, safety, quality, effectiveness, or outcomes of care; estimate the impact of the implementation effort on policies, processes, and/or outcomes, as well as key stakeholders in the care process being addressed; and facilitate AHRQ's understanding of the health services research needs and concerns held by policy and decision makers representing Partnership member organizations.

A complete description of each project funded in FY 2003 can be found in the Grants On-line Database (GOLD) located at www.ahrq.gov.

Centers for Disease Control and Prevention[5]

In addition to the NCHS (described in detail below), CDC funds health services research through multiple programs, including its Extramural Prevention Research Program (EPRP), which was at $13.8 million in FY 2003. EPRP sponsors peer-reviewed research conducted by academic researchers who are linked with state and local health agencies and communities to develop improved public health interventions and services. Prevention research aims to discover how to prevent disease, injury, and disability and to translate this knowledge into interventions that will be effective across many diverse communities. Major objectives of prevention research are to ensure the dissemination of scientific information and its application by practitioners, policymakers, and the public.

Examples of Research[6]**:**

- **Evidence-based, effective tobacco use prevention and control programs, including baseline data, to evaluate these programs;**
- **Methods for tracking immunization levels (such as community/state population-based immunization registries), parent reminder/recall, mandatory immunization laws, and assessing provider and community efficiency in delivering vaccines;**
- **Studies to reduce the risk of childhood lead exposure, including: primary prevention to identify cost-effective approaches to prevent lead exposure in children, and secondary prevention to improve screening of high-risk children and case management of children with lead poisoning;**
- **Research to identify the costs of implementing standing orders programs and their components compared to other organized immunization programs in long-term care facilities and, subsequently, to determine the cost-effectiveness of such programs and their components; and**
- **Evaluations to ascertain the effectiveness of partnership network communication activities under the special population activities of the National Diabetes Education Program.**

National Center for Health Statistics
Information and Data Systems FY 2003 $125.9 million

Examples of Research:

NCHS provides the most current data for tracking health insurance coverage and access to care—which is critical to understanding the impact of public policy and the economy on children and families. Through the National Health Interview Survey, NCHS provides tracking data on a quarterly basis, released only six months after each quarter's data collection. These data allow health services researchers to track changes

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[5] **We were unable to calculate a total for what CDC spends for health services research across the various Centers.**
[6] **Developed from "Research, Demonstration, and Evaluation Activities, FY 2003 Plan and Budget," United States Department of Health and Human Resources, February 2002.**

in public and private health insurance coverage for the nation as well as for population subgroups.

NCHS measures the health status of Americans and how it changes, providing the context for setting priorities in health and health care, evaluating the success of policy interventions, and assessing the value we get as a nation from our investment in health.

NCHS data are used in examining trends in the use of prescription medications, including: increases in medication use (the types of medication increases and the populations receiving these medications); use of first-line versus non-first-line drugs in the treatment of diseases (e.g., for hypertension); use of name-brand versus generic medications, appropriate use of medications (relative to scientific or clinical recommendations); and visits for adverse drug events.

NCHS provides data for understanding patterns of long-term care utilization, such as median length of stay in hospice settings (as an indicator of appropriate referral and use), characteristics of "live" discharges from hospice care, the interplay between utilization of home and hospice care, the emergence of new health services (such as transitional, sub-acute, or rehabilitative care), disparities in the use of long-term care services, and the growing diversity of residential long-term care facilities in the United States.

NCHS data assess the population's use of health care services, including changing utilization patterns between inpatient and outpatient settings, trends in use of cardiac invasive procedures or other emerging technologies, and avoidable hospitalizations/ambulatory care sensitive conditions (as a marker of appropriate access and use of health services, for example).

NCHS monitors the capacity and performance of our health care system by, for example, tracking waiting times in emergency departments. This information is critical to measuring unmet health care needs, as well as for assessing our capacity to respond to bioterrorism and other national emergencies.

NCHS data help focus policy and health programs on issues of greatest importance by providing a credible, scientific basis for understanding the magnitude of problems, and by helping generate hypotheses for health services and biomedical research.

NCHS data are a public good, are made available in detailed form, are accessible over the Internet, and are widely used in health services research. NCHS data are commonly used for publications by academic and private researchers in peer-reviewed journals.

Centers for Medicare and Medicaid Services

CMS Research, Demonstration and Evaluation Budget
FY 2003 $73.6 million[7]

CMS's Research, Demonstration, and Evaluation (RD&E) budget supports RD&E projects to develop and implement new health care financing and payment policies and to examine the impact of CMS's programs on its beneficiaries, providers, states, and other customers and partners. The scope of CMS's activities embraces all areas of health care: costs, access, quality, service delivery models, and financing and payment approaches related to its programs.

CMS's RD&E budget will continue to support research and demonstrations directed at helping to chart the course for the future of its programs. CMS has been an innovator in many respects—particularly in developing and refining payment systems and in quality improvement. Significant improvements to the Medicare and Medicaid programs have come as a result of these research investments.

CMS's RD&E budget is arrayed in several thematic areas:

- Monitoring and Evaluating CMS Programs
- Preparing CMS Programs for the 21st Century
- Meeting the Needs of Vulnerable Populations
- Building Research Capacity

Research activities under the "Monitoring and Evaluation" theme focus on providing the information needed to inform policymakers at CMS, DHHS, and Congress about how well the current programs are operating, including assessments of access to care, studying of the effects of new prospective payment systems, and developing data to help monitor overall program operations.

Projects conducted under the "Preparing for the 21st Century" theme emphasize the development of health care delivery and financing structures needed to keep pace with changes in medical knowledge and new modes of insurance, delivery, and care coordination. These projects included the development and testing of alternative managed payment and delivery approaches, new payment models to modernize the Medicare fee-for-service system, activities supporting Medicaid program change and increased flexibility, and information to help development and implement long structural reforms of our programs.

CMS's "Meeting the Needs of Vulnerable Populations" theme includes studies to improve our understanding of health care use and costs by specific vulnerable populations, as well as the causes of racial, ethnic and gender-based disparities in health care received by CMS's beneficiaries. Finally, the "Building Research Capacity" theme supports a variety of activities intended to increase the efficiency of our

[7] Includes congressional earmarks

research and demonstration program and to meet the cross-cutting research needs of CMS and the wider health research community.

Examples of Research:

The following projects provide examples of the broad range of CMS research and demonstration initiatives:

Medicare Preferred Provider Organization (PPO) Demonstration. To increase choices available to Medicare beneficiaries, CMS has awarded grants to 18 organizations to conduct demonstrations to offer PPO plans under the Medicare+Choice program. These awardees will test new delivery and financing methods similar to models existing in commercial markets offered by employers and insurers. CMS is also sponsoring an evaluation of the demonstration.

Physician Group Practice (PGP) Demonstration. CMS is implementing and evaluating a demonstration involving large Physician Group Practices, testing physician groups' response to financial incentives for improving care coordination, delivery processes and patient outcomes, and the effect on access, cost, and quality of care to Medicare beneficiaries.

New Freedom Initiative-Demonstration to Improve the Direct Service Community Workforce. In 2003 CMS awarded grants to several states under the President's New Freedom Initiative to remove barriers to community-based care. This demonstration program was designed to offer funding to test methods of recruitment and retention of community service workers.

Implementation and Evaluation of Disease Management Demonstrations. CMS is undertaking a series of demonstration projects to test alternative disease management approaches to provide beneficiaries with greater choices, enhance quality of care, and offer better value for the dollars spent on health care. These demonstrations examine whether coordinated care and disease management programs can improve medical treatment plans, reduce avoidable hospital admissions, and promote other desirable outcomes, without increasing Medicare expenditures.

Evaluation of Access to Physicians Among Medicare Beneficiaries. CMS is collecting and analyzing information from multiple sources to monitor changes in access to physician services among Medicare beneficiaries. The study includes the use of targeted surveys of beneficiaries as well as other data to determine, on as close to a real time as possible, whether Medicare beneficiaries are experiencing access problems in specific geographic areas.

Development and Refinement of Payment Methodologies. CMS is continuing to perform research and analyses to develop and refine its Medicare prospective payment systems for skilled nursing facilities, inpatient rehabilitations facilities, and psychiatric hospitals. They also continue to improve and refine the risk adjustment methodology developed for payment of managed care organizations.

Evaluation of State Pharmacy Assistance Programs. CMS is sponsoring evaluations of several state programs that provide prescription drug coverage to low-income elderly Medicare beneficiaries to analyze the effects of these programs on Medicaid and Medicare expenditures.

National Institutes of Health

NIH budget applied to health services research FY 2003	$873 million

The following examples describe the types of health services research funded by selected institutes:[8]

National Cancer Institute (NCI) health services research budget FY 2003	$145.3 million

- Research to develop, apply, and evaluate interventions to improve cancer outcomes and reduce outcome disparities;
- Evaluations of the effectiveness and cost-effectiveness of innovative interventions; and
- Studies of evidence-based interventions to enhance cancer communication.

National Institute of Mental Health (NIMH) health services research budget FY 2003	$202.2 million

- Research to identify, develop, and assess behavioral strategies suitable for diverse populations;
- Research to enhance the provision of mental health services to low-income women seen for treatment of trauma in public primary care facilities and to disadvantaged women seen for prenatal health care services;
- Research to ascertain that interventions shown to be efficacious in rigorous clinical trials are, indeed, effective in routine practice settings;
- Research to improve the quality of services available for persons with depressive and anxiety disorders who are seen primarily or exclusively in the primary care sector, in part by examining why certain decisions are made by both physicians and patients regarding treatment;
- Studies to develop behavioral interventions designed to prompt health care personnel to adhere more strictly to procedures and protocols that enhance outcomes and prevent treatment sequelae; and
- Methods for improving the delivery of mental health services for persons with co-morbid conditions that are treated both in and outside of the specialty mental health sector.

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[8] Developed from "Research, Demonstration, and Evaluation Activities, FY 2003 Plan and Budget," United States Department of Health and Human Resources, February 2002.

National Institute of Nursing Research (NINR) health services research budget FY 2003 — $16.4 million

- **Research to test the effectiveness of an intervention to improve health outcomes in persons with HIV who are receiving antiretroviral medications through a program managed by a state health department and evaluate the cost effectiveness of the intervention.**

National Institute on Alcohol Abuse and Alcoholism (NIAAA) health services research budget FY 2003 — $65.0 million

- **Comparisons of the costs of alcohol treatment programs with their outcomes, benefits, and cost offsets.**

National Institute on Drug Abuse (NIDA) health services research budget FY 2003 — $153.6 million

- **Improvements in the effectiveness and efficacy of drug abuse treatment and prevention interventions;**
- **Examinations of different models of managed care and their effects on access to services, quality of care, and treatment outcomes;**
- **Studies of different patterns of use of services by various populations (adolescents, minorities, women, homeless, mentally ill, HIV-infected drug abusers) and then research to improve drug abuse treatment and prevention services for these special populations;**
- **Studies on the cost-effectiveness and cost benefits of drug abuse treatment and prevention services;**
- **Methods of alternative payment systems, public and private financing systems, and the design of insurance;**
- **Development of an economic methodology for estimating the costs of drug abuse and drug treatment and for valuing the benefits of various intervention strategies;**
- **Research on the organization, management, financing, and delivery of prevention services; and**
- **Studies on how to integrate research-based interventions into usual clinical practice, involving research on transfer of new knowledge about treatment, research on the organizational change process involved in adopting and sustaining new behavioral and pharmacological interventions in usual clinical settings, and research on the economics of improving drug abuse treatment practices in specialty and primary care settings.**

National Institute on Aging (NIA) health services research budget FY 2003	$74.8 million

- **Methodologies for improving geriatric evaluation and management;**
- **Improvements to the coordination, organization, and delivery of health care services for older people, with emphases on home health care, doctor-patient interventions, and care of patients with Alzheimer's disease;**
- **Developments of scientifically based interventions to facilitate prevention and treatment programs for elder abuse and neglect; and**
- **Research on ethnic/race differences in the use of, processes associated with, and outcomes of various health care delivery systems and settings, and on the design of interventions for improving minority access to health care services.**

Veterans Health Administration

The Health Services Research and Development Service (HSR&D) is a program within the Veterans Health Administration's Office of Research and Development. HSR&D provides expertise in health services research, a field that examines the effects of organization, financing, and management on a wide range of problems in health care delivery, quality of care, access, cost, and patient outcomes. Its programs span the continuum of health care research and delivery, from basic research to the dissemination of research results, and ultimately to the application of these findings to clinical, managerial, and policy decisions.

Table 7

Veterans Health Administration Office of Research and Development Health Services Research Budget by Category (Dollars in Millions)	
Clinical Services[9]	
Clinical Quality	$4.5
Clinical Decision Making	$11.9
Health System	
Quality	$19.9
Access	$1.1
Cost	$1.2
Health Care Organization and Delivery	$1.5
Populations/Consumers	$5.1
Information and Data Systems	$1.7
Public Health and Prevention	4.1

[9] Does not include all funded projects. They include only projects specifically categorized according to the VA Research and Development Designated Research Area (DRA) guidelines.

Examples of Research:
The VHA's Web site (www.hsrd.research.va.gov/publications/impacts) provides examples of their research impacts. The following examples are illustrative of their research.

Lower Screening Rates for Colorectal Versus Prostate Cancer. Despite widespread efforts to improve adherence to colorectal cancer screening guidelines, HSR&D investigators have found that it is still considerably less common than prostate cancer screening. While some believe PSA screening may reduce deaths due to prostate cancer, others believe that widespread screening will lead to more prostate cancer diagnoses and potentially harmful therapy, without any improvement in outcomes.

On the other hand, colorectal cancer screening for people aged 50 and older is widely advocated, and has proven to reduce mortality substantially among those who receive periodic screening. Researchers compared the prevalence of PSA and colorectal cancer screening among men in the United States, using data from a large telephone survey conducted by the Centers for Disease Control and Prevention (n = 49,315). They found that 75 percent of men aged 50 and older had undergone PSA testing at least once, compared to 63 percent of men aged 50 and older who had undergone colorectal cancer screening. Further, men were more likely to be up-to-date on prostate screening than colorectal cancer screening. Investigators recommend that physicians inform patients about the known mortality benefit of colorectal cancer screening, as well as the uncertainty about screening for prostate cancer.

Sirovich, B.E. et al. "Screening men for prostate and colorectal cancer: Do we have our priorities in order?" Journal of the American Medical Association, Vol. 289, No. 11, March 19, 2003, pp. 1414–20.

VA Shift to Outpatient Care Does Not Affect Survival Rates. As part of a major organizational transformation begun in 1995, VA made a dramatic shift from being primarily an inpatient/specialty care system to an ambulatory, primary care-based organization. A recent HSR&D study found that this shift did not result in decreased quality of care. Investigators sought to determine how these dramatic system changes affected the frailest VA patients, as VA increased primary care services while reducing its acute care hospital beds by more than half. Findings include:

- **Decreased access to hospital care was not associated with a decline in long-term survival rates for chronically ill patients.**
- **Survival rates in five of nine cohorts (pneumonia, congestive heart failure, angina, bipolar disorder, and major depressive disorder) showed significant annual improvements over the five-year study period (1994–1998).**
- **During the study period, VA bed-day rates (days per year a patient was hospitalized) fell by 50 percent and rates of urgent care declined by 35 percent, while there was a moderate increase in medical clinic visits, and visits for testing and consultation.**

Findings indicate that decreasing hospital usage does not necessarily lower the quality of health care or result in poorer patient outcomes.

Ashton, C. et al. "Hospital use and survival among veterans affairs beneficiaries," The New England Journal of Medicine, Vol. 349, No. 17, October 23, 2003, pp. 1637–46.

Community-Based Care Measures Up. More than 240 VA Community-Based Outpatient Clinics (CBOCs) have been established across the country, with the goals of increasing access to care, shortening waiting times for visits, and increasing quality while decreasing the cost of care. A team of HSR&D investigators was charged with evaluating key aspects of CBOCs and then comparing the services CBOCs provide with the same services provided at VA medical centers (VAMCs). Investigators found that:

- **Patients in CBOCs perceive fewer problems with access and timeliness of care (e.g., shorter waiting times) than do traditional VA clinic patients.**
- **CBOCs provide a similar level of quality of care as VAMCs in regard to prevention and disease detection.**
- **Total costs of care for veteran patients at CBOCs are lower compared to costs of care for patients treated in VAMCs.**

Findings suggest that CBOCs have the potential to enhance access to primary care for veterans, without sacrificing quality. A series of CBOC articles appeared in Medical Care, Vol. 40, No. 7, July 2002, pp. 555-95.